

University Level Education in Bangladesh: An Appraisal

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Abstract :This paper attempts to assess the performance of tertiary level education in so far as its ability to supply appropriately skilled human resources to meet the need of the economy. It uses such indicators as public expenditure on education, expenditure on tertiary education, enrollment ratio at the tertiary level, proportion of students enrolled in science and technology oriented subjects at the tertiary level, proportion of skilled and knowledge-based professionals in the workforce to assess the prevailing situation. It reveals a situation of imbalance between general education and science & technology oriented education. University level education is yet to evolve into a balanced system to produce not mere generalists but rather skilled and knowledge-based professionals for the economic development of the country. This analysis is based on secondary sources of information.

Key Words: Tertiary Education; Evolution; Coverage; Quality; Modernity

1. Introduction

It is not long ago, when university level education in Bangladesh was in great demand. It offered limited scope for the limited few students to prepare for just a few professions. Modern universities have become vast and multidimensional. In any society, it is now given an ever higher valuation. Growing educated population has accentuated the demand for higher education. Globalization of the economy has further generated forces creating demand for skilled human resources.

It is now generally recognized that university graduates are more productive than primary and secondary level graduates. This becomes more evident when cities and factories grow and spread in response to invention, innovation and technological explosions. In this process growth and movement, activity and change tend to make life difficult for man.

Thus, there seems to exist a consensus that society has to make ways to permit all men to take pride in their own work in an automated age. Here lies the responsibility of the universities to give the people the intellectual skills and tools the world demands.

The growth of universities in Bangladesh has not been a steady progression. It took about two decades for her to add three universities to the six that had existed at the time of independence in 1971. Some thirty universities were, however, established in between 1990 and 2001. By 2008, the number of

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universities exceeded eighty. Prior to the enactment of private university act in 1992, universities were sponsored and organized by the government. The opening up of the scope for the private sector to establish universities contributed much to the spread of university level education.

This expansion in university level education has not been accompanied by an increase in enrollment rate. In the 1970s, the enrollment rate at the higher education level was estimated to be less than 1% of the country's population [14]. It has been found to remain stagnant at 1% of the population in 2008 [15].

The quality of higher education is also low. There is a general belief among the people that at public universities, intakes are good, teachers are also the best achievers, but academic interactions between the two are grossly inadequate, resulting in low quality output. On the other hand, the degrees of most of the private universities are viewed to carry low academic value.

In Bangladesh, there appears to be insufficient orientation of higher education towards science, technical, technological, engineering and other applied fields. The proportion of students enrolled in science and engineering subjects at the tertiary level is relatively low. Although modern universities in European countries concentrated on science in the 19th centuries and became increasingly accessible to the masses. It remains an objective of the modern universities to produce specialists in balance with the generalists for rapid economic growth.

Thus, it seems important to know how far our higher education thinking in the past has lived up to the ideals of expansion of university level education in balance with modernity and quality and to what effect. This will help prepare the ground for an appraisal of the existing tertiary education system in so far as it contributes to the strengthening of the economy by way of providing human resources with necessary skills.

This study is based on secondary sources of information. It makes use of relevant data available in various plan documents, existing literature and other published documents of government and non-government organizations. It seeks to employ an analytical and descriptive approach to unfolding the nature of the existing higher education relating to its coverage and quality. It also makes use of educational performance indicators to assess the prevailing situation at the tertiary level of education in Bangladesh.

This paper has been organized into several sections. It attempts to trace out the evolution of university education thinking in Bangladesh in section 2 and then in section 3 it discusses in short the coverage and enrollment of students. Section 4 focuses on quality in higher education. Section 5 which is the focus of this paper briefly examines the performance of the tertiary level education system of Bangladesh relating to the supply of human resources with necessary skills for raising the productivity. In the final section, we provide a conclusion of the discussion.

2. University Education Thinking: Evolution in Bangladesh.

Modern education system was developed in Bangladesh by the British during their rule in India. Its objective was to create "a class of persons, Indian in blood and colour, but English in taste, in opinions, in morals and in intellect" for service with the Government of British India [16]. This system has remained largely unchanged since the partition of India. It gets reflected in the First Five Year Plan (1973-78) formulated immediately after the independence of Bangladesh. "Before 1947, the purpose of education was to produce a number of educated people who could assist the British colonial administration in the country. People who were educated under this system acquired a set of values which developed in them a distaste for all forms of manual labour" [6]. The planners further emphasized: "A socialist democracy like Bangladesh can not allow creation of an elite class as in the past. It (education) must have relevance to future work and life and must provide adequate preparation for productive employment" [6].

There were some persons and groups to whom the prime function of university was to protect and defend traditional beliefs, values and attitudes. To them, universities were not only the highest seats of learning but also the centers of unity and uniformity of thoughts and ideas. During the reign of Pakistan, the university was viewed as a guardian, an instrument to transmit to youth the perceived ideology and culture upon which Pakistan was created. It was aimed at serving the purpose of preserving the ideological unity of the country [16].

There were still others who believed that universities should have been the fountainhead of social, economic and political reforms. They believed in the intellectual freedom of the university. To them universities are the agents of change; creation of new out of the old. They have tended to foster unity in diversity. But when universities (state-run universities) are wholly financed by the government, it becomes extremely difficult for the academic authority to innovate curricular without incurring displeasure of the government. During the period of British colonial rule, the university and other institutions of higher learning were centers of protest against foreign domination and oppression. During the reign of Pakistan, university students and teachers were held in distrust by the ruling circles of Pakistan because of their undisguised opposition to anti-democratic, authoritarian and illiberal policies followed in the country. The universities were continuously subjected to all kinds of pressure to prohibit free thinking and discussion of the relevant issues of the day. The various attempts at denying academic freedom to these institutions slowly led to a situation where these could no more hope to grow as centers of excellence [6].

After the emergence of Bangladesh, the goals of education were combined with political projects such as promotion of social integration and linguistic harmony. In the process of political development the definition of national identity has become a matter of party politics [12]

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This evolution of higher education from elitist to agent of change is not unique to Bangladesh. Such a trend was also there in the western world. But in the process of subsequent development differences continued to creep in. In the western world, they adopted the concept of modern university based upon creativity, research and advanced teaching and learning. They have developed a vast and complex array of higher educational institution with huge expenditure for capital improvement and expansion of enrollment capacity for young men and women. They have developed a system of university education that is more practical, science, technology and engineering oriented and diverse in activities [7]. In Bangladesh, the university level education has however, continued to be of liberal nature for a long period of time. After 1990s Bangladesh has possibly realized the imperatives of participating in the trend of tremendous development of university education across the world. But it seems to lack in capacity and speed to catch up with the trend that has already taken off beyond Bangladesh.

3. Coverage

There may be at least three aspects of coverage. One aspect of it is territorial distribution of universities. This gives indication to the nature and extent of access of university education to the people of different regions of the country. Second aspect is enrollment, which highlights the proportion of total population of the appropriate age group getting the opportunity of university education. The third is related to the distribution of students among different disciplines such as arts, business, science and engineering. This gives indication to the existing nature of imbalance between demand for and supply of human resources in the job market.

3.1 Territorial Coverage.

In the year 1971, when Bangladesh emerged as an independent state, the number of universities offering general education was four: one each at Dhaka, Chittagong, Rajshahi and Jahangirnagar. There were two universities of professional nature, viz., Bangladesh University of Engineering and Technology (BUET) and Bangladesh Agricultural University (BAU). In accordance with the provisions made in the Second (1980-85) and Third (1985-90) Five Year Plans, there came into being three universities, one each in Khustia (Islamic University), Khulna and Sylhet. By the end of 1996, the number of Universities stood at 11 including the Bangladesh Open University (BOU) and National University [4]. The Fifth Five Year Plan (1997-2002) lays emphasis on expanding science and technical university. Accordingly, provisions for the establishment of 12 more science and technology universities were made. The four Institutes of Technology (BIT) of the country were transformed into engineering and technology universities. By 2008, the number of universities in the public sector stood at 31 [1]. Besides, there is an International University of Technology at Gazipur funded by the OIC and the Asian University for Women in Chittagong set up by a foreign consortium.

The Private University Act was passed in 1992. It paved the way for the establishment of university in the private sector. Currently (2008), the country has 51 private universities, 42 in and around Dhaka city, 6 in Chittagong and 3 in Sylhet. There is none on the western side of the Jamuna [13].

3.2 Enrollment

At the time of independence, the enrollment levels at the four general universities including BUET and BAU were very low. There were 8 medical colleges and three engineering colleges, where, enrollment levels remained low too. In a country of 7.5 crores of people, total enrollment of all universities, medical and engineering colleges including general colleges offering courses for BA, B.Com & B.Sc. pass degrees taken together had been found to be less than 1% of the country's population [14]. Table 1 gives the relevant information.

Table 1: University Education Enrolment, 1972-73

Universities	Total	Science	Arts	Commerce	Home Mgt	Female
DU	10084	2925 (29)	7159			At higher education level percentage of female students is not more than 8%.
RU	6424	2568 (40)	4056			
CU	2174	501 (23)	1673			
Jahangirnagor	405	283 (70)	122			
Sub total	19287	6277 (32.55)	13010			
Engineering University	1944					
Agriculture University	2495					
Total	23726					
Medical colleges	1405					
Degree pass	98000	17830 (18.20)	49528	30408	234	
Degree Engineers	1220					

Note: Figures in parenthesis indicate percentage

Source: GOB, First year Plan. Pp 478, 519, 468, 472

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The information of Table 1 is indicative of a limited scope for higher education in Bangladesh.

After an elapse of 25 years, when the country's Fifth Five Year Plan (1997-2002) was formulated, the scenario can not be said to have changed remarkably. Enrollment at university level stood at 60,000 in 1995. The academic activities of Khulna university and Shajalal University were then underway with targeted enrollment of 890 and 1800 respectively. For other general universities there was nominal increase in enrollment, while in the two technical universities (BUET & BAU), the number of students remained as they were. Similar was the situation with the solitary medical university namely Bangabandhu Sheikh Mujib Medical University. Table 2 gives further information:

Table 2: University Educations: Enrolment by Management, Sex.

Year	No of University		Enrollment		Female Enrollment	
	Public	Private	Public	Private	Public	Private
2001	17	22	92562 (77.26)	27245 (22.74)	22494 (24.3)	7312 (26.8)
2003	21	51	104736 (70.13)	44604 (29.87)	25812 (24.3)	7795 (17.5)
2007	27	51	163004 (48.88)	170410 (51.12)	39369 (24.15)	40067 (23.51)
2008	31	51	160447 (41.41)	226986 (58.59)	40068 (24.97)	53572 (23.60)
2008	National University (NU)		939730			
2008	Bangladesh Open University (BOU)		72615			

Note: Figures in parenthesis indicate percentage

Source: (1) BANBEIS, 2008.

(ii) UGC, Annual Reports, 2008.

Table 2 shows a total enrollment of 11,72,792 students at public universities. In 2008, total enrollment at private universities stood at 22, 6,986. Both the figures of enrollment at public and private universities taken together account for less than 1% of country's population getting the opportunity of higher education at colleges and universities. Since

independence, the country's population has more than doubled. Demand for higher education has increased manifold in different ways. But total enrollment in percentage has stagnated at less than 1% [15].

Female Enrollment:

Data in table 2 further show that there exists gender disparity in access to university education. About 24 percent of the students enrolled at public universities are female. The corresponding number in private universities is about 23 percent. It is noticeable that the female enrollment rate has remained almost constant for the last decade in public universities. It, however, continued to rise slowly in private universities.

In 2008, more than 53 percent of students enrolled at secondary levels were female [1]. At primary level, gross enrolment rate was over 100 by 1997. Thus, there is almost a 50 percent fall of female enrollment rate at secondary schools compared to those of primary levels. A similar trend is visible at university level. Female enrollment rate declined by further 50 percent at the university level compared with those of the secondary levels. The fall of enrollment rate at university level may be taken as natural and logical. Because university education is selective and competitive, though it transpires an inequality in the level playing field. There may be other reasons too. Partially, it may be a supply-side factor. The rise of aspiration for education was better matched by the availability of opportunities at primary and secondary levels [12]. Further, the labour market in Bangladesh is still, to a certain extent, gender segmented. There are constraints on women's employment. So the changing structure of economic opportunities has not impacted on women's education.

3.3 Coverage by Discipline: Science, and Others.

A determined research effort in the areas of sciences is of paramount importance for transformation of country's resource situation. As a step towards this direction, development planners of the country laid great emphasis on the development of science and technology based education in all the five years plans of the country, though implementation remained a problem.

TABLE 3: University Education : Enrollment by Discipline at a Few Selected Universities 2011

University	Science	Commerce/ Business	Arts & Social Science	Total
Dhaka	1347 (28.37%)	900 (18.95%)	2500 (52.66%)	4747
CU	855	436	1441	2732

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	(31.29%)	(15.95%)	(52.74%)	
RU	1530 (45.95%)	400 (12%)	1400 (42%)	3330
JU	795 (30.17%)	660 (25%)	1180 (44.78%)	2635
Comilla	115 (21.11%)	165 (31.42%)	245 (46.66%)	525
SUST	650 (50.58%)	50 (3.89%)	585 (45.52%)	1285
Khulna	553 (66.62%)	55 (6.62%)	222 (26.74%)	830
Islamic	370 (27.92)	225 (15.98%)	730 (55%)	1325
B.R.U Rangpor	220 (34.37%)	180 (28.12%)	240 (37.5%)	640
Jagannath	560 (48.27%)	200 (17.24%)	400 (34.48%)	1160
BAO	808			
BUET	835			
CUET	431			
KUET	485			
RUET	485			
Medical colleges	2360			
Total	12399	3271	8943	19209

Source: www.admission.univdhaka.edu, www.Juniv.edu, www.cu.ac.bd, www.ru.ac.bd, www.ku.ac.bd, www.icciu.info, www.cou.ac.bd, www.sust.edu, www.ruet.ac.bd, www.kuer.ac.bd, www.cuet.ac.bd, www.buet.ac.bd, www.dghs.org.bd

Currently, a good number of science and technology based universities are in operation in the country. The enrollment capacity of these universities

is however still low. Table 1 and Table 3 present relevant information. Table 1 depicts the situation of the 70s while Table 3 highlights the current situation. The message of both of these tables, however, remain the same and it is clear that the ratio of enrolled students in science is low compared to other disciplines.

Gender Disparity:

The proportion of female students enrolled in science is around 20 percent. In engineering and other specialized disciplines, this proportion is again, comparatively low. This does not mean that female students are less meritorious. It can, among other social factors, partly be attributed to the limitation in choice of subject at secondary and higher secondary levels.

4. Quality Education:

Quality in education is an ideal standard of education that a society considers necessary for its purpose which has to be achieved from standards observed [10]. It recognizes a gap between the ideal and the observed standards.

Quality in education may be reflected in the structure, process and outcome of the universities [10]. Structural quality is reflected in the physical and human resources of the university such as library, laboratories, educational qualifications and experience of the teachers and administrative personnel. Process quality reflects in the teachers' ability and willingness to transfer knowledge and skills, teacher-student ratio, teacher-student contact time and the skills of the support services. Outcome quality refers to the impact of students' reception of ideas and thinking, time and energy devoted to learning. Quality in education, in fact, presupposes quality in inputs. Of all the inputs, teachers and students perhaps remain to be the most dominating factors. Here we will limit our discussion to these two sets of participants in the learning process.

4.1 Students Motivation to learn:

At the university level, students motivation to learn right things and to learn well may come from knowing what to learn, why to learn and how to learn. It however presupposes a sound mental and physical condition of a student. Students having questions in mind are likely to be motivated to study with deep devotion and rapt attention to search out the right answers. It possibly requires opening up opportunities for the students to gain invaluable experience side by side with the theoretical aspects of knowledge imparted at the university.

In Bangladesh, students at universities, live in an atmosphere of learning. They discuss, debate and interact to learn things based on logic and reasoning. But to promote life long learning and creative activities, universities can possibly go for distinctive public engagement, scientific, business and cultural alliances. But the fact is that in Bangladesh, students are learning in isolation.

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4.2 Teachers in Classroom

For quality education, quality classroom teaching can deserve a consideration by its own merit. Classroom is a forum providing an opportunity to both the teachers and the students to interact in order to build the foundation of reason and analytic thinking. To make the class-meeting meaningful in terms of the amount of knowledge learnt, students must attend the class with adequate home work.

Feedback on classroom work can be said to be conspicuous by its absence, at least, at public universities. As a method of teaching and learning, lecture method has been in use for hundreds of years. The classroom experiences are not always reportedly meaningful. There are complaints from the students about poor lecture in terms of trying to cover too much material, inadequacy of preparation, poor delivery, poor use of time (for example, coming late and stopping early) and so on. Teachers are also found to have their own experiences of finding students in many cases lacking interest and responsiveness. This is indeed reflective of poor quality of university education [11].

4.3 Teachers' Motivation to Teach:

Teaching is possibly the most important part of the duties and responsibilities of university teachers. Because it justifies the existence of universities. But this aspect of the responsibilities of teachers in reality, is left to the conscience of the teachers concerned. In most of the universities, promotion is based on seniority and publication. Teaching performance, as a criterion, has to take a back-seat. The importance of publication is undeniable. Because, through it, existing knowledge is reassessed, re-presented and disseminated. In the same way, teaching is important. It is also a means to re-examine, reproduce and disseminate knowledge to new learners [17]. It, therefore, appears logical to give certain weight-age to teaching performance in the consideration of promotion and for motivating the teachers to do well in the classroom. This is likely to be a motivating factor in the enhancement of quality in education.

4.4 Student/ Faculty Ratio:

It is a recognized fact that for quality education, students often need individual attention. It requires a favorable student/ faculty ratio. It also demands, on average, a small class size of less than 25 students. These are essential to facilitate the students to collaborate with the faculty in order to ensure intellectual development of students. Table 4 provides relevant information reflecting the situation prevailing in Bangladesh

Table 4 shows that faculty/ student ratio varies from 3:1 to 34:1 across the universities.

In universities of professional nature, it is relatively low. In universities of general nature, the faculty/ student ratio can not be said to be congenial for

interactive learning. For dearth of data, though we can not exactly figure out the average class size, it can however be said apriori that, in general universities, it is not always small enough for providing needed individual attention to the students.

Table 4: Students/ Faculty ratio at selected public universities

(A)

University	Number of Students	Number of Faculty at work	Student/ Faculty ratio
Dhaka	28772	1343	21:1
Rajshahi	26909	805	33:1
Chittagong	19301	732	26:1
Jahangirnagor	10417	372	28:1

(B)

University	Number of Students	Number of Faculty at work	Student/ Faculty ratio
Bangladesh Agricultural University	4621	348	13:1
Shahjalal University of Science and Technology	7930	236	34:1
Bangladesh Sheikh Mujib Medical University	1116	394	3:1
Bangladesh University of Engineering and Technology	7218	407	18:1

Source: www.juniv.edu, www.cu.ac.bd, www.ru.ac.bd, www.ku.ac.bd, www.icciu.info, www.cou.ac.bd, www.sust.edu, www.ruet.ac.bd, www.kuer.ac.bd, www.cuet.ac.bd, www.buet.ac.bd

5. Tertiary Level Education : An Appraisal :

This section is devoted to an examination of several indicators of the scope

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and achievements of tertiary level education in Bangladesh. Table 5 presents data on public expenditure on education and the share of it enjoyed by the tertiary level education. It also shows its impact on enrollment. The data shows a small sum of expenditure of little more than 2 per cent of GDP on the provision of education. This is behind that of India, Pakistan, and Sri Lanka with 3.7, 2.6 and 2.7 per cent respectively (Table 6). This explains itself of the inadequacy of financial resources required to ensure adequate quality of education at different levels.

Expenditure on tertiary education as a share of total public expenditure is abysmally low. It is less than 1 per cent. Its share with little more than 5% of total expenditure on education is also insignificant. On both the counts, Bangladesh lags far behind India and Sri Lanka. India allocates more than 20 per cent of her total expenditure on education to tertiary level. In Sri Lanka it is more than 13 percent. This lack of public fund indicates that educational institutions do not have the ability to do things well.

Table 5: Public expenditure on education and performance in Bangladesh

Year	Public expenditure on education as a share of GDP	Expenditure on tertiary education as a share of total public expenditure	Expenditure on tertiary education as a share of total expenditure on education	Combined gross enrollment ratio for primary, secondary and tertiary schools % (2002/2003)	Tertiary enrollment ratio (% of tertiary age population Gross(2001-2009)	Tertiary students in science as per cent of tertiary students (1998-2003) % of all tertiary student
	53	7.0	13			
2003-04	2.1	1.06	8.6			
2004-05	2.2	0.53	5.11			
2005-06	2.3	0.75	5.52			

Source: http://siteresources.worldbank.org/EDUCATION/Resources/Bangladesh_countrysummary.pdf UNDP Human Development Report, 2005 UNDP Human Development Report, 2010 GOB Bangladesh Economic Review-2007

Table 5 further presents information related to the enrollment ratios for different levels of education. It reveals a high enrollment ratio of 53 per cent for combined primary, secondary and tertiary schools. But enrollment ratios do not reflect the quality of education that is available. Further, this high combined enrollment ratio can not be said to be enough as it lags far behind India and China, where the ratio is 60 and 69 per cent respectively.

Table 6: Public spending and enrolment at tertiary level in neighboring countries of Bangladesh

Country	Public expenditure on education as % of GDP 1990 2000-02	Public expenditure as % of total government expenditure 1990 2000-02	Public expenditure on tertiary education as % of total expenditure on education 1990 2000-02	Tertiary enrollment ratio (% of tertiary school age population)	Tertiary students in science, math and engineering (% of tertiary students) 1990 2000-02	Combined Gross enrollment ratio for primary, secondary and tertiary students % 2002 /03
India	3.7 4.1	12.2 12.7	14.3 20.3	13.5	20	60
Pakistan	2.6 1.8			5.2		35
Sri-Lanka	2.7	8.1	13.4			69
China	2.3	12.8		22.1		69

Source: UNDP Human Development Report, 2005

Enrollment at tertiary level is again as low as 7 per cent. In India and China this ratio is 13.7 and 22.1 per cent respectively. Again, enrollment in science subjects is only 13 per cent of tertiary students. This is still relatively low when compared with India where it is 20 per cent. It indicates an insufficient orientation of higher education in Bangladesh towards scientific, technical and other applied fields. A high proportion of enrollment in science and technical subjects at the tertiary level is crucial for high level technical manpower. It is essential for making the economy internationally competitive.

Education and Employment:

There exists a link between education and employment. “ Education is the fundamental source for supply of high level, mid level and junior level professional manpower as well as operation level skilled personnel for all the production and service sectors. Education can have a tremendous impact upon technology transfer and on the favorable growth of capital - output ratio and labour - output ratio” [5]. Even though the importance of education

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and employment was strongly emphasized in the plan documents, practical achievement is not all that satisfactory. This has been revealed in data presented in Table 7. It shows that the intensity of skilled and knowledge based professionals has remained low. In 2009, the economy utilizes 5.83 per cent of its workforce at the professional and technical level, while only 0.42 per cent is involved in administration and managerial position. This makes a total 6.25% of skilled and knowledge based professionals, a proportion that is considered rather too small for the operation of high-tech industries. It is therefore crucial for the economy to increase the proportion of professional, technical and managerial section of the workforce to gain competitiveness in the future.

Table 7: Employment by Major Occupations (million)

Job Category	Year		
	1989	LFS 2005-6	MES 2009
1. Professional , Technical	1.47(2.49%)	2.2(4.37%)	2.8(5.83%)
2. Administrative Managerial		0.5(0.99%)	0.2(0.42%)
3. Clerical workers		1.4	1.0
4. Sales workers	3.7	7.1	6.7
5. Services workers	1.46	4.9	2.8
6., Agriculture, Forestry and fisheries	37	22.2	23.0
7. Production and transport workers	5.37	12.1	11.5
8. Others	1.13		

Note: LFS (Labor Force Survey)

Source: BBS Report on Monitoring of Employment Survey, 2009

World Bank Report No 11569-BD, March 24, 1993

6. Conclusion

Modern education system was developed in Bangladesh by the British. This system has remained largely unchanged ever since. Despite an increase in the number of universities, total enrollment as a percentage of the county's

population has not increased. Gender disparity in access to university education continues to persist. The quality of higher education is also low.

University level education system in Bangladesh seems to lack ability to produce technologically skilled human resources in balance with the generalists. This is reflected in the disproportionately low enrollment ratio in science and technology related subjects at tertiary level. Paucity of fund remains a crucial factor that deters the promotion of higher education. Since, science and technology related education hinges greatly on financial resources, this area of learning suffers the most

It has two implications. First, the country continues to remain deficient in getting the supply of appropriately skilled work force required for self sustaining economic growth. Second, it impacts negatively on the country's international competitiveness.

It warrants targeted efforts to develop a vast array of higher educational institutions with enough expenditure for capital improvement and expansion of enrollment capacity to produce skilled human resources to meet the changing needs of the country's economy. It presupposes a perspective view of the country's requirement for human resources over time. This study does not explore this aspect of relationship between the change in economic structure and the consequent change in demand for human resources. It remains to be explored further.

Improvement of quality of higher education is likely to be a greater challenge than the expansion of access. Since it is a systemic problem, a strong monitoring system may go a long way in shaping its delivery. It also requires further in-depth study using appropriate indicators of quality of higher education for policy decisions. The present study is also inadequate in assessing the nature and patterns of quality of higher education due to dearth of data. To gain better understanding and generalization of conclusion a longitudinal research design may be useful.

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