

The Importance of Changing the Traditional Mode of Higher Education in Bangladesh: Creating Huge Job Opportunities for Home and Abroad

M. M. Shahidul Hassan, Omiya Hassan

Abstract—Bangladesh has set its goal to reach upper middle-income country status by 2024. To attain this status, the country must satisfy the World Bank requirement of achieving minimum Gross National Income (GNI). Number of youth job seekers in the country is increasing. University graduates are looking for decent jobs. So, the vital issue of this country is to understand how the GNI and jobs can be increased. The objective of this paper is to address these issues and find ways to create more job opportunities for youths at home and abroad which will increase the country's GNI. The paper studies proportion of different goods Bangladesh exported, and also the percentage of employment in different sectors. The data used here for the purpose of analysis have been collected from the available literature. These data are then plotted and analyzed. Through these studies, it is concluded that growth in sectors like agricultural, ready-made garments (RMG), jute industries and fisheries are declining and the business community is not interested in setting up capital-intensive industries. Under this situation, the country needs to explore other business opportunities for a higher economic growth rate. Knowledge can substitute the physical resource. Since the country consists of the large youth population, higher education will play a key role in economic development. It now needs graduates with higher-order skills with innovative quality. Such dispositions demand changes in a university's curriculum, teaching and assessment method which will function young generations as active learners and creators. By bringing these changes in higher education, a knowledge-based society can be created. The application of such knowledge and creativity will then become the commodity of Bangladesh which will help to reach its goal as an upper middle-income country.

Keywords—Bangladesh, economic sectors, economic growth, higher education, knowledge-based economy, massification of higher education, teaching and learning, universities' role in society.

I. INTRODUCTION

ENHANCING a country's productivity and competitiveness is now more important than ever. Educated youths with creative and innovative skills are the potential workforce behind any productivity explosion. Higher education is, therefore, now about developing flexible, creative and well-rounded individuals. Therefore, a university's challenge is now to produce graduates with the knowledge and right skills to drive growth and productivity. Universities must then come out from outmoded paradigms.

The University of Al Quaraouiyine (859) in Morocco is recognized as the first degree-granting university [1]. Education at Al Quaraouiyine University is concentrated on

the Islamic religious and legal sciences. The first university in Europe was the University of Bologna, Italy which was established in 1088. Like the University of Al Quaraouiyine, the University of Bologna also focused on religious and legal services. In 19th century, the Humboldtian university model conceived by Wilhelm von Humboldt had spread around the world. The central Humboldtian principle was the 'union of teaching and research' in the work of the individual scholar or scientist [2]. In the 20th century, research has come to be seen as a vital activity in itself, contributing to industrial progress, military strength, and social welfare, and requiring collaborative rather than individual effort. The historical role of a university is the creation and dispersion of knowledge. Universities now need to focus on preparing young people for the workforce and changes in traditional roles.

The following questions arise: Why do universities need to change their role in this century? Have any special changes occurred that have created pressure on universities to change their role? Worldwide student enrollment started increasing after 1990. It was about one in hundred in 1990 and rose to five in hundred by the end of 20th century [3]. Increasing job opportunities worldwide have inspired diverse segments of the population to attend university to receive a tertiary education. Eventually, a fundamental change in higher education system is needed to provide quality education to that large segment of the population [4]. Thus, universities need to undergo change in their responsibilities in society, mode of operation, and economic growth and ethical values [5].

The higher education system and role of universities in Bangladesh also needs to be reviewed the present international context. This paper identifies the challenges that universities will need to face and to accept in order to take them as sources of new knowledge and innovative thinking. Universities in Bangladesh should be providers of skilled personnel with credible credentials and who are contributors to innovation. Universities should also adopt a teaching and learning program and environment to produce graduates who will contribute to social and cultural vitality.

II. ECONOMIC GROWTH IN BANGLADESH

It is needed to know the present and future demand of university graduates in economic sectors. If the country needs a highly-skilled workforce then the chief priority for must be to raise the productivity of knowledge and service work. The role of universities will be not only to impart knowledge and competencies, but to do so with respect to the nation's

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economic development.

The economy of Bangladesh can be classified into three sectors, namely agriculture, service and industries. The fastest growing area of the economy is the service sector which includes public administration and defense, education, health and social services, community and personal services, hotels and restaurants, retail trade and wholesale trade, transportation and communication, real estate and renting, financial institutions, etc. Agriculture remains the single most important sector of economy in Bangladesh, while the share of agriculture in the country's GDP is declining (see Fig. 1). Shares of both the service and industry sectors are increasing.

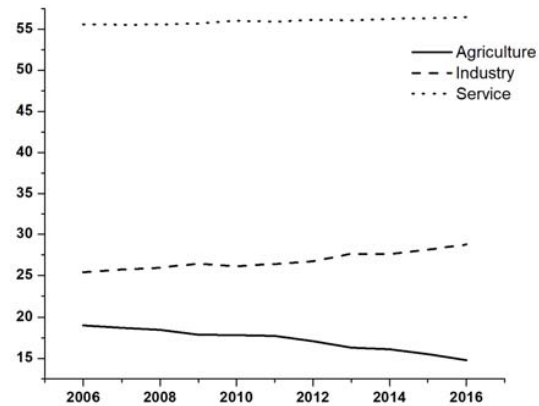


Fig. 1 Sector share as percentage of GDP [6]

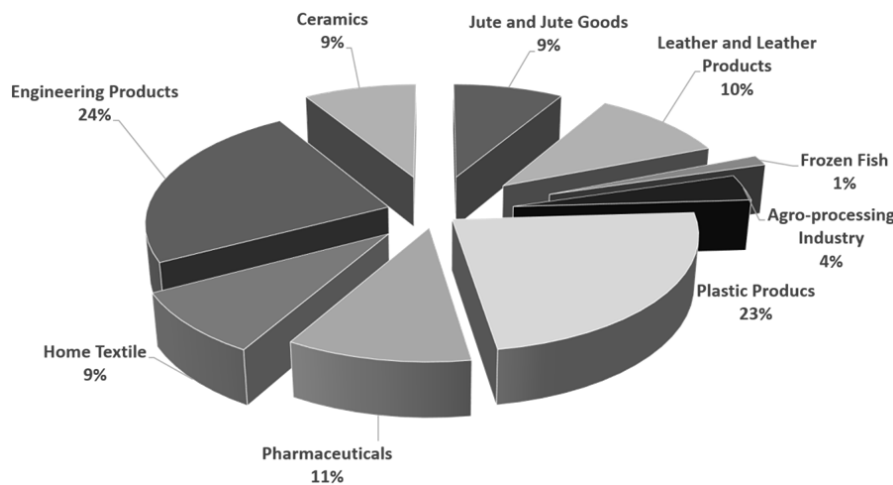


Fig. 2 Proportion of different goods Bangladesh exported. Source: Bangladesh Export Promotion Bureau [7]

Fig. 2 illustrates the proportion of different goods Bangladesh exported. Pharmaceuticals, leather and leather products and engineering products are three promising export sectors of Bangladesh. The share in employment in the service as well as the industry sector is increasing (Fig. 3). Agriculture's share in employment is declining in Bangladesh just like many other countries. In industrialized countries, farm hands shifted to the industry sector first and then to the service sectors; however, in Bangladesh it has happened the other way round, farm hands shifted to petty service providers like small road side restaurants, transport and shops before moving to factories in search of work. Rapid growth of industrialization will, therefore, be necessary to address the increasingly diminishing capacity of agriculture to absorb the incremental labor force, cater to the growing domestic demand for industrial goods, and take advantage of emerging opportunities in the global market. Industrialization has picked up in the sectors of RMG, ceramics, cosmetics, pharmaceuticals, electrical wires and fittings, furniture, bathroom and floor tiles, toilet accessories, shoes and handbags, paper, etc. The pharmaceutical sector has emerged as one of the potential leaders in the hi-tech industry sector in

Bangladesh; currently, the country is earning foreign currencies from high quality exports. Tea has long been an export earner too. Demand of jute products at home and abroad is also increasing. These industry sectors have created employment opportunities for youth job seekers; however, it is unfortunate that university graduates have not acquired the knowledge and cognitive skills required for these roles. Sector employers are not interested to recruit local graduates due to skill shortages at both the technical and managerial level, and a good number of foreign workers and officials are employed to work in these industries. Currently more than 200,000 foreign nationals are working in various industry sectors to contribute to the process of manufacturing, production and marketing, and annually their take-home salaries and allowances stand at nearly US\$5 billion [9].

Bangladesh is trying to promote the sectors of services, manufacturing and assembling, and information technologies; however in doing so, it has to compete with Asian countries such as India, Japan, Singapore, Malaysia and Thailand, and even with neighboring country Myanmar. Universities able to produce graduates acquiring both knowledge and skills, would create a workforce able to replace foreign nationals employed

in various industries and also meet the expected demand for a highly-skilled labor force when Bangladesh attains the status of upper middle income country. Few decades ago, South Asian countries forged a path towards the growth of their industry and services sectors. Bangladesh, being a member of South Asian Regional Association Cooperation (SAARC), needs to opt that path, and thus, the role of the higher education sector in facilitating a skilled, knowledgeable workforce has become critical. There is a strong demand for graduates with higher cognitive and non-cognitive skills, as well as job-specific technical skills in the country. This situation requires an improvement in the quality and relevance of tertiary education to ensure graduates have more market-relevant skills.

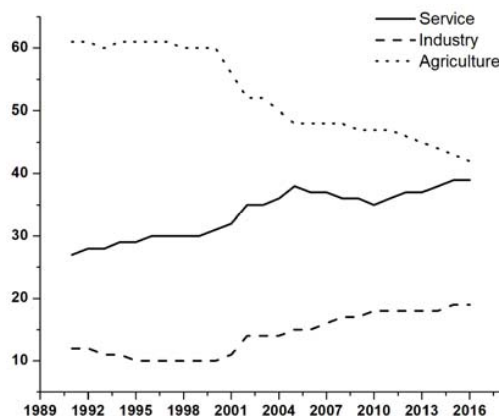


Fig. 3 Share in employment in percentage in different sectors.
Source: Bangladesh Economic Review-2017 [8]

III. EMERGING MARKETS AND EMPLOYMENT OPPORTUNITIES

With 45% of the population under the age 15 years and with about two million youths joining the job market every year, Bangladesh faces a tremendous challenge in creating opportunity for a large segment of its population. One question being asked is: How will it provide jobs for the 20 million young people set to join the labor force over the next decade? The share of the agriculture sector to GDP in Bangladesh has declined to 14.8 % in 2016 from 18.36% in 2010 [10]. The country's fast growing population is now looking for new land to build homes for the excess population, and with factories setting up in remote areas of countryside; the country is continuously losing cultivable land. Funding is not enough for research and training. New technology is not applied to increase the production. The declining trend in growth of agriculture sector will continue and will push the labor force to migrate from the agriculture sector to the service and industry sectors as is evident from Fig. 2. The pharmaceutical industry is a promising economic sector in Bangladesh. After promulgation of the Drug Control Act in 1982, local pharmaceutical industries have grown at a considerable rate. The pharmaceutical industry consistently provides job opportunities for a high-level skilled workforce. Earnings from pharmaceutical exports reached US\$ 82.11 million in the

2015-2016 fiscal year, up from US\$ 72.64 million in 2014-2015 [11]; this industry currently contributes almost 1% of the total GDP [12]. The leather industry is the second largest export earning sector of Bangladesh [13]. This sector also needs educated skilled manpower. The present industry and service sectors do not develop much to provide jobs for the large segment of youth job seekers. On the other hand, there is not enough economic diversity in the country. Research has shown that diversity in industries, products, goods and services generates employment. More and better jobs are crucial to Bangladesh's economy. Though labor in Bangladesh is relatively cheap, the job market is shrinking as capital-intensive industries are taking the place of the labor-intensive industries, creating youth unemployment. In the 47 years since the country's independence, a few capital-intensive industries have been established and a number of foreign investors have come to invest. Bangladesh plans to become an Upper Middle Income country from a Least Developed Country by 2024. Upper middle-income countries are those who attain minimum GNI per capita of \$4,036 [14]. In 2016, GNI per capita for Bangladesh was US\$ 1,433 and is predicted to be US\$ 2,199 in 2021 [15]. However, its minimum GNI per capita has to be increased to \$4,036 from US\$ 2,199 in three years. Bangladesh will need to accelerate growth and job creation will be the priority to achieve that aim. With limited resources and a large youth population, creation of a knowledge-based society and economy can help to ensure Bangladesh reaches the status of upper middle-income country.

If universities can produce graduates with high level skills and innovative and creative abilities, then with such graduates, Bangladesh can create knowledge based society and more opportunities will be created for them to get jobs in global markets. As well, graduates can be successful as entrepreneurs and be self-employed in the workforce.

Around the world, many developing and developed countries are working on creating a knowledge-based society and economy.

IV. SCENARIO OF HIGHER EDUCATION IN BANGLADESH

Starting with six public universities, Bangladesh now has a total of 48 public universities and 105 private universities since its inception as a sovereign country. The growth of universities from period 2002 to 2018 is shown in Fig. 4, while the student enrollment vs. year is plotted in Fig. 5.

Despite the increasing number of universities in Bangladesh, they cannot accommodate the huge number of students who pass entrance exams and rush for admission every year. Survey shows that out of the total 60.828 million labor force, only 9.094 million was formal employment. Total formal employment was 14.9% of total employment (Fig. 6). Out of 9.094 formal employment opportunities, 4.39 million graduates get a job. There exists a clear positive correlation between higher education attainment and formal employment i.e., highly educated persons are more likely to be in the sector of formal employment and less educated are more likely to be employed in informal employment. The education system in

Bangladesh is less job, and more degree oriented. It relies mainly on traditional methods that encourage memorization, and learning is mainly classroom-based teaching where students are passive recipients [18]. It should be student-centered.

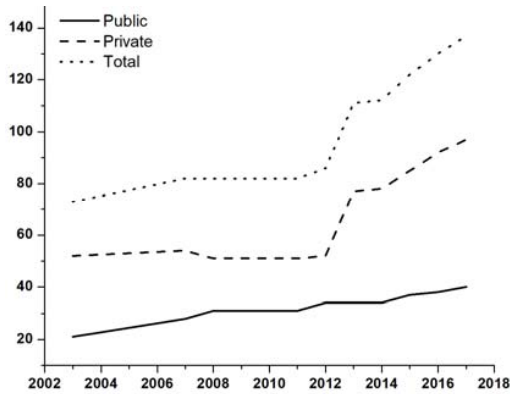


Fig. 4 Growth of universities in Bangladesh [16]

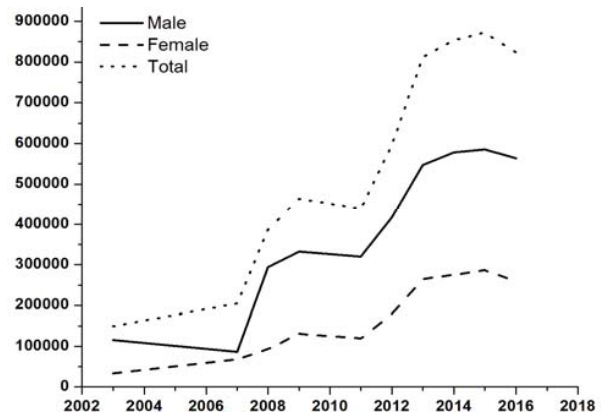


Fig. 5 Year-wise student enrollment in Bangladesh [16]

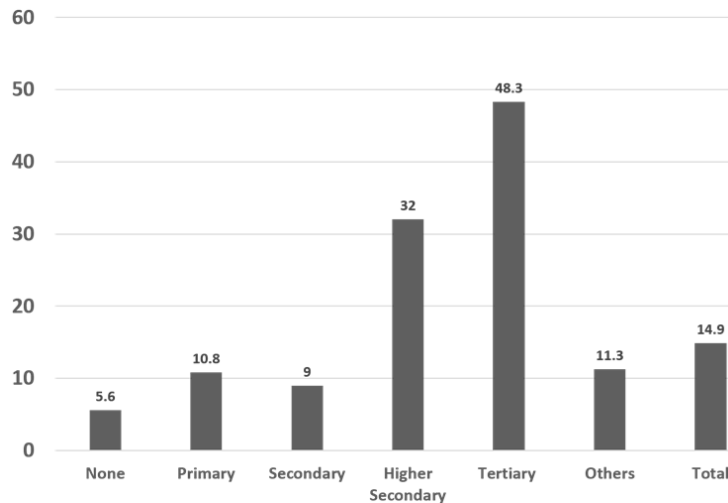


Fig. 6 Proportion of formal employment by education. Source: Labor Force Survey Bangladesh 2016-17 [17]

In the 21st century, organizations and industries prefer self-directed workers who can adapt and learn quickly. They also need workers who can think critically, communicate and innovate as both industries and markets change and employers are exploring new possibilities. Therefore, the key aim of a university is to maximize the learning potential of students so they can realize their potential as individuals and as responsible citizens with the necessary skills and capabilities for life and work now and in the future. It is important for students to learn a core set of knowledge and also to develop skills such as adaptive thinking, communication, collaboration, critical thinking and problem solving, personal management, inquiry, technology, creativity and innovation, as well as soft skills such as empathy and perspective. It is the responsibility of a higher education institution to help its students to develop these 10 skills. Institutions in Bangladesh need to implement a fundamental transformation in teaching

and learning in order to produce graduates with higher-order thinking, communication and innovative skills that are critical to their future success. In bringing changes in teaching and learning, Bloom's Taxonomy [19] can be applied. Teachers can play an important role to help students acquiring knowledge in the fields of study and also in developing high-level skills in understanding real-world issues and analyzing and solving complex problems. Teachers need to introduce innovative practices in their classrooms. Teachers can create more interest among their students with the use of multimedia, interactive whiteboards, animations and videos. The curriculum of any program must be developed based on feedback from stakeholders, which includes teachers, students, university authority, guardians, and employers. Before preparing a curriculum, the objectives of the program and course learning outputs of each subject must be clearly defined. The curriculum of a program should primarily aim to

create a culture of creativity and innovation in the students studying that program [20]. Students' performance in a course is at present assessed mainly by examinations, and students depend on the memorization of information and procedure in answering questions. Therefore, traditional methods of

assessment encourage students to take a surface approach to learning. Surface learners are more interested to rote learn information for the purpose of getting a good grade and confine their study to the bare essentials.

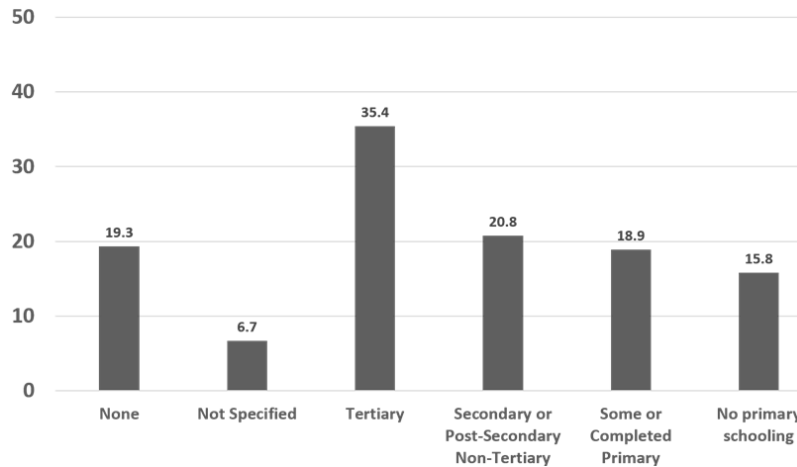


Fig. 7 Migration as percent of working age population by education. Source: Labor Force Survey Bangladesh 2016-17 [17]

Various modern assessment techniques are now being applied in assessing students' learning. At the course-level, direct method includes homework, quizzes, prelims and exams, reports and term papers, research projects, case study analysis, rubrics for oral and other performances. Indirect measures include course evaluations, student surveys, exit interviews, course enrollment information, focus groups, alumni surveys, and graduate school placement rates. By adopting modern teaching and assessment techniques universities can produce graduates capable of critical thinking and develop competences for placing them in global job markets. More graduates will then get jobs abroad and will increase the number of migrates than that at present (Fig. 7).

A strong, well-balanced education system is crucial in today's professional world. Changes in curriculum, as well as teaching and assessment methods must be made so as to produce graduates with skills in critical thinking, oral and written communication, creativity, ethical judgment and with the ability to work effectively with others.

V.CONCLUSION

Bangladesh faces great challenges in creating jobs for its huge youth population. The country's present economic sectors are not advanced enough to provide the number of jobs that country need. By establishing a knowledge-based society, Bangladesh can realize the full benefit of its "demographic dividend" in the years ahead. Changes need to be brought in education curriculums, teaching and assessment methods. Curriculum and pedagogy must engage the younger generation as active learners and creators, especially when knowledge has become power in a globalized world.

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REFERENCES

- [1] Park, K. Thomas and Boum, Aomar, Historical Dictionary of Morocco: Scarecrow Press, 2nd ed., 2006, ISBN 978-0-8108-5341-6, p. 348.
- [2] Marianna, Wertz, Education and Character: The Classical Curriculum of Wilhelm von Humboldt, The Schiller Institute, Inc. 2005.
- [3] Evan, Schofer and John, W. Meyer, The Worldwide Expansion of Higher Education in the Twentieth Century," American Sociological Review, 2005, Vol. 70, No. 6, p. 898-920.
- [4] Giannakis, Mihalis and Bullivant, Nicola, The massification of higher education in the UK: Aspect of service quality, Journal of Further and Higher Education, 2016, Vol. 40, No. 5, p. 630-648.
- [5] Ernst and Young, University of the future: Australia, 2012.
- [6] Bangladesh: Share of economic sectors in the gross domestic product (GDP) from 2006 to 2016, <https://www.statista.com/statistics/438359/share-of-economic-sectors-in-the-gdp-in-bangladesh/>.
- [7] Bangladesh Export Promotion Bureau, www.mof.gov.bd.
- [8] Finance Division, Ministry of Finance, Government of Bangladesh, Skills Development: A priority Agenda for Accelerated Growth, 2016, June, p. 51.
- [9] Bangladesh Economic Review 2017, <https://archive.org/details/BangladeshEconomicReview2017>.
- [10] Bangladesh Economic Update, 2016, February, Vol. 7, No.2.
- [11] Business report, Pharma sector can earn \$1b in exports within five years, the daily star, Bangladesh, 2017, 29 March, <https://www.thedailystar.net/business/pharma-sector-can-earn-1b-exports-within-five-years-1383007/>.
- [12] Md. Tasnim, Bangladesh Pharmaceutical Industry 101, Insight, 2017, July 27, <https://futurestartup.com/2017/07/27/bangladesh-pharmaceutical-industry-101/>.
- [13] Husna, Asmaul, 17 facts you should know about Bangladesh leather industry, <https://futurestartup.com/2015/08/23/17-facts-you-should-know-about-bangladesh-leather-industry/>.

- know-about-bangladesh-leather-industry/.
- [14] Nielsen, Lynge, Classifications of Countries Based on Their Level of Development: How it is Done and How it Could be Done, IMF Working Paper, Strategy, Policy, and Review Department, 2011, February.
 - [15] Kallol, Asif Showkat, Per capita income likely to cross \$1600 in the next fiscal, *Tribute*, 23 April, 2017, <https://www.dhakatribune.com/bangladesh/2017/04/23/muhith-per-capita-income-likely-cross-1600-next-fiscal/>.
 - [16] University Grants Commission of Bangladesh, <http://www.ugc.gov.bd/>.
 - [17] Labor Force Survey Bangladesh 2016-17, Bangladesh Bureau of Statistics, http://203.112.218.65:8008/WebTest/Application/userfiles/Image/Latest Reports/LFS_2016-.pdf.
 - [18] Broughton, Geoffrey, et al., *Teaching English as a Foreign Language*, 1994, 2nd ed. London: Routledge.
 - [19] Bloom, B., B. Mesia, and D. Krathwohl, *Taxonomy of Educational Objectives (Two vols: The Affective Domain & The Cognitive Domain)*, 1964, New York. David McKay.
 - [20] *Curriculum 21* edited by Heidi Hayes Jacobs, ASCD 2010.

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