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The Impact of COVID-19 on Bangladesh's Economy: A Focus on Graduate Employability

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Abstract

The COVID-19 pandemic is having an adverse impact on Bangladesh's economy by affecting millions of people's life and hampering their income sources. The outbreak of COVID-19 has created more pressure on the labor market. The pandemic reduces employment opportunities as most of the companies have stopped their recruitment process to cut their operational costs, which increases the rate of graduate unemployment in Bangladesh. Hence, this study aims to investigate the impact of COVID-19 on graduate employability in Bangladesh that adversely affects the income of families and eventually the nation's economy. A literature review has been conducted from secondary sources to evaluate the impact, which shows that the rate of graduate unemployment increased from 47% to 58% in 2020 with an expected annual loss estimated at \$53 million. Findings also reveal that the prime reasons for graduate employability are low demand and huge supply of graduates in the labor market, lack of professional skills of graduates, ineffective education system, etc. The study suggests that the government of Bangladesh should develop some policies to overcome this problem such as ensuring employment subsidies, implementing skills development programs, improving labor market flexibility, initiating credit programs for generating employment, and developing entrepreneurial ecosystems in Bangladesh.

Keywords: Public Policy, Bangladesh Economy, COVID-19, Policy Responses, Graduate Employability, Unemployment

JEL Classification Code: A23, E24, E61

1. Introduction

A cluster of cases of pneumonia of unknown cause in Wuhan, China, was first reported on December 31, 2019, and a week later identified as COVID-19. On March 11, the World Health Organization (WHO) declared COVID-19 a pandemic (Alam et al., 2020; Khanet al., 2020; Khanthavit, 2020). The COVID-19 has had an adverse impact on Bangladesh's economy by affecting millions of people's life and hampering their income sources. Due to the distressing effect of the coronavirus pandemic, massive job losses took place in all employment sectors in Bangladesh. The outbreak of COVID-19 has created more pressure on the labor market.

However, graduate unemployment has become the curse for the nation and this situation has become more acute during this COVID-19 pandemic. Bangladesh ranked in 2nd position on graduate unemployment within the South Asian nations, which create an obstacle to obtain the demographic dividend (Bhuiyan et al., 2020). More than 2.3 million graduates are unemployed and 350,000 graduates are

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entering every year the job market in which almost 200,000 are remaining out of work. The graduate unemployment rate has risen to 47% in 2019, but it was 32% in 2015 in which the rate of unemployment among female graduates (45%) was 2.4 times that of their male counterparts (19%) (Khatun & Saadat, 2020). According to Ferdous et al. (2019), there are some reasons behind this perplexing rate of graduate unemployment in Bangladesh such as low demand and huge supply of graduates in the labor market, lack of professional skills of graduates, ineffective education system, outdated curriculum, influences of lobbying, corruption and political affiliation in job market, and frequent occurrence of crisis, recession and pandemic.

Various financial crisis, economic recession and pandemic like Spanish flu and COVID-19 increased the graduate unemployment rate across the world. During the financial crisis (2007–2009) the world unemployment rate rose to 10% in which 1 in 5 employees lost their jobs. Thousands of graduates lost their jobs from both domestic and foreign labor markets and, at that time, the graduate unemployment rate of Bangladesh increased from 13% to 17% from the year 2006 to 2009 due to economic slowdown (Haque et al., 2020). During the 1998 Asian financial crisis, Bangladesh was also affected by the depreciation of currency and economic slowdown in which foreign direct investment (FDI) and foreign remittance of the country were reduced. Consequently, thousands of people lost their jobs in Bangladesh.

The outbreak of COVID-19 has engendered unprecedented economic crisis in Bangladesh like in other nations. The startup businesses of Bangladesh have also been affected drastically since mid-March 2020 due to the upsurge of COVID-19. About 24% of businesses reported that they had to stop their operations and 50% reported a drop of revenue, which is intimidating for 1.5 million in employment, with an expected annual loss estimated at \$53 million in 2020. The Economist Intelligence Unit (EIU) expected that the rate of graduate unemployment would increase from 47% to 58% in 2020 because of the economic crisis, which is reducing both national and global demands of goods and RMG products and due to COVID-19; 3 million graduates may lose their jobs out of 25 million salaried employees (Neazy, 2019).

However, the good news is that, with COVID-19, about 40,000 new job opportunities have emerged in ICT, pharmaceuticals, e-commerce, agro-based foods, healthcare service, and creative media, which require the graduates to acquire employability with hard and soft skills. According to the Financial Express (2019), the ‘Bangabandhu’ High Tech Park has received 250 million BDT as foreign investment, which will generate about 2,000 graduate jobs. The Government of Bangladesh has allocated 100 crores BDT (\$11.5 million) to set up 28 Hi-Tech parks in order to improve local startup ecosystem and IT infrastructure

development, which will generate ICT-based employment opportunities for the fresh graduates.

2. Literature Review

2.1. Concepts of Graduate Unemployment

Graduate unemployment refers to the unemployed graduates who possess an academic degree at tertiary level. The concept of graduate unemployment is the term that describes people who are employable and looking for jobs, but are unable to find a job despite having their academic degree and knowledge. Unemployment is the state in which a pool of talent is available for jobs, but unable to get any kind of suitable job; it is the indicator of economic status of a country. The rate of graduate unemployment is measured by dividing the number of graduates unemployed by the total number of employees (Zhang, 2018).

2.2. Scenario of Graduate Unemployment in Bangladesh

The scenario of graduate unemployment in Bangladesh is devastating and it has become one of the vital concerns. Based on the BBS (Bangladesh Bureau of Statistics), unemployment rate in Bangladesh is 5%, which is equivalent to the US, but unemployment rate among the graduates is about 47%. According to the CPD (Central for Policy Dialogue), about 5 out of every 10 graduates remain unemployed in Bangladesh (whereas 3 out of every 5 graduates remain unemployed in India and Pakistan) (Shammi et al., 2020a). About 3.5 million graduates are unemployed of which 63% are male and 37% are female. Bangladesh ranked in the 2nd position regarding the highest graduate unemployment rate in the South Asian countries (Bhuiyan et al., 2020). The EIU showed that the graduate unemployment rate of Bangladesh compared to other South Asian countries is as follows:

Based on the views of the UGC’s (University Grants Commission) report, every year about 350,000 graduates are entering the job market and almost half of them are remaining unemployed. According to the World Bank report, only 19% college graduates are engaged in full-time employment and nearly half of them are unemployed; this study reveals that female university graduates are more unemployed compared to their male counterparts after two or three years of graduation being completed, in which 45% of female university graduates remained unemployed compared to 37% of male university graduates (Mamunet al., 2020). This frustrating scenario of graduate unemployment has raised questions regarding future economic slowdown.

Figure 2 shows that the graduate unemployment in Bangladesh is rising rapidly: in 2015 the graduate unemployment rate was 32%, but in 2019 it rose to 47%.

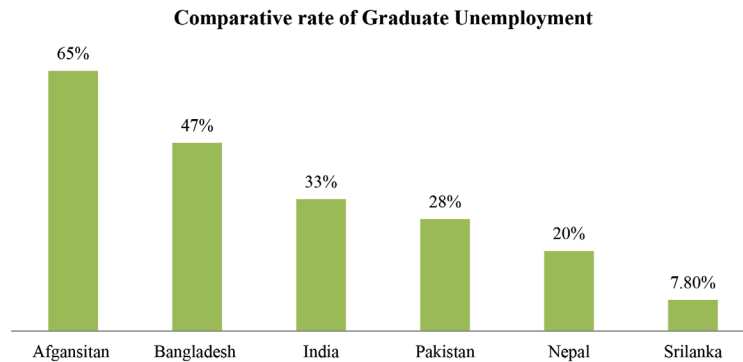


Figure 1: Graduate Unemployment Rate of South Asian Countries (EIU, 2019)

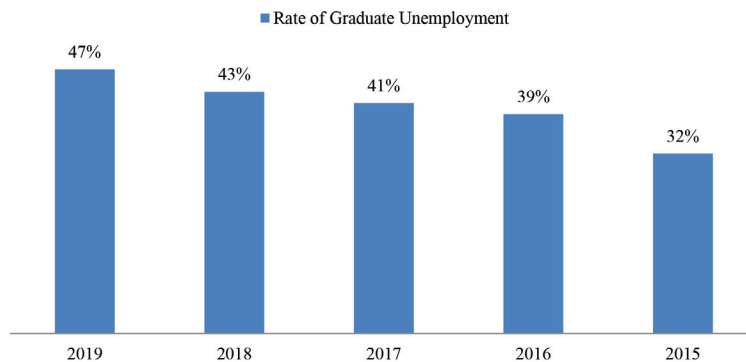


Figure 2: Last Five Years Graduate Unemployment Rate (BBS, 2019)

Bangladeshi graduates are facing challenges for securing white-collar jobs and more than two-third of the job seekers remain unemployed after two or three years of graduation (Mohiuddin, 2020a).

2.3. Reasons for Graduate Unemployment Problem in Bangladesh

The rate of graduate unemployment for Bangladesh is puzzling and there are many reasons such as lack of cognitive and soft skills of the graduates (critical thinking, problem solving and communication skills), low quality of education systems (outdated curriculum of public universities and low quality of private universities), no job specialization and lobbying, corruption and political affiliation. The scenario of graduate unemployment in Bangladesh has become a challenging problem for government and the prime reasons are as follows: i) a chronic over-supply of graduates, ii) small and competitive job market, iii) ineffective education system, iv) lack of job specialization, v) lack of required professional skills and qualities among the graduates, vi) outdated curriculum, and vii) lobbying, corruption and political affiliation (Hwang, 2017).

The Bangladesh government is concerned because of the high graduate unemployment and the government has already taken some initiatives in order to address this serious problem. For example, the government integrated the 2009 ICT policy into digital 2021 Bangladesh policy, and developed IDEA and startup projects by allocating 100 corers BDT (\$11.5 million) in order to improve local startup ecosystem and generate employment opportunities (Akter & Iqbal, 2019). The government of Bangladesh has also established more than 28 Hi-Tech parks in order to develop IT infrastructure development, which will generate ICT-based jobs for fresh graduates. The ‘Bangabandhu’ High Tech Park has received 250 million BDT as foreign investment, which will generate about 2,000 graduate jobs. But the outbreak of COVID-19 severely affects such initiatives, which create uncertainty for the graduates to find jobs (Shil et al., 2020).

2.4. Impact of Different Economic Recessions and Pandemics on Graduate Unemployment

Various economic recessions and spread of pandemics negatively affect the employment of a country as millions of people lose their jobs and graduates cannot find jobs in such

situation. Economic recession is the contracting economic period in which businesses begin to lose profits due to fall in demand. In such situation unemployment rises and becomes high as firm's cost increases, revenue falls and pressure of debt increases, which lead to lay-offs for cutting down costs. Businesses face the same situation during pandemic because the economic focus is given to coping with the pandemic situation rather than business growth. So, it becomes difficult for new graduate job seekers to find jobs. On the other hand, millions of people lose their jobs during the pandemic due to the contraction of the labor market and economic recession, which raised the rate of unemployment and graduate unemployment as well (Ullah, 2020).

2.4.1. Financial Crisis (2007–2009)

The great financial crisis occurred in the period of 2007–2009 when the global economy fell into stagnation and it was the most severe financial and economic meltdown. The main cause of the financial crisis was the vulnerable financial systems and the series of triggering events, which began through the bursting of the housing bubble in the USA in 2005–2006. It increased the unemployment rate 10% and one in five employees lost their jobs. The effect of that great recession was seen in the economy of Bangladesh as it reduced the exports (5.8 % in the first half and 6.2 % in the second half FY 2019–2020). So, many graduates remained unemployed during that recession and many residents and non-residents Bangladeshi also lost their jobs. During the financial crisis, the graduate rate of unemployment in Bangladesh also increased from 13% to 17%, from the year 2006 to 2009 due to economic slowdown (Haque et al., 2020).

2.4.2. Spanish Flu

The Spanish flu was first seen in Europe, USA and different parts of Asia, known as the avian-borne flu. This flu spread to the whole world swiftly in 1918 and about 50 million people died from the flu. World labor markets of different large cities were shut down and the pandemic created the economic recession through increasing labor wages and shortage of labor. The Indian Subcontinent was greatly affected, and thousands of people died while millions of people lost their jobs. So, such pandemic increases a country's graduate unemployment rate as demands of labor reduce generally during this time (Killeen et al., 2020).

2.4.3. Asia Financial Crisis-1998

The 1998 Asian financial crisis started in July 1997 with the currency crisis and greatly affected the production, stock markets and labor markets of Asian countries. The stock markets of South Korea, Thailand, Malaysia and Indonesia collapsed, and inflation rate rose about 12.9%.

During this financial crisis, Bangladesh was also affected due to depreciation of currency and economic slowdowns. Bangladeshi exports fell by 17% and the country recorded only 11% imports from the affected countries. FDI and foreign remittance of the country were reduced. Thus, thousands of people lost their jobs from the affected countries, which gave rise to the rate of unemployment (Moudud-Ul-Huq et al., 2020).

2.4.4. COVID-19

The outbreak of COVID-19 has engendered unprecedented economic crisis in the global economy as well as the economy of Bangladesh. According to the International Labor Organization (ILO), this pandemic will wipe out about 7.2% of working hours, and 125 million workers will lose their jobs in the Asia Pacific region whereas remittances of South Asia are projected to decline 22%, which translates to \$109 billion and the economic growth rate of 6.1% in 2019 will also fall (Karim et al., 2020). The COVID-19 has created catastrophic pressure on the labor market of Bangladesh, and many people have lost their jobs because of economic slowdown and lockdown. The ILO predicted that more than 85% informal labor in Bangladesh are extremely vulnerable and will hit the marginal people in low-income who are self-employed or day-labor (Mohiuddin, 2020b). This situation mostly affects the urban employment, which leads to poverty, reverse migration and inequality by creating challenges for the graduate people to get jobs.

The COVID-19 pandemic reduces the opportunity for youth skills development and shrinks the employment opportunities for the upcoming fresh graduates. According to the ILO report, this pandemic affects about 20 million graduates in the labor force of Bangladesh, which indicates the colossal economic disruption for the country (Shammi et al., 2020b). A survey by the Bangladesh National ICT Household predicted that about 5.5 million people will lose their jobs by the end of 2020 and 2.5 million people will lose their jobs the following year. The startup businesses of Bangladesh have also been affected drastically since March 2020 due to COVID-19 pandemic (Griffiths, 2020). About 24% businesses reported that they are bound to stop their operations and 50% recorded a drop in revenue. Within the three months of lockdown, 60% startups business have closed down, which is ominous for 1.5 million employees, and the expected annual loss is estimated at \$53 million in 2020 (Ferdous et al., 2020). The graduates are confronting severe problems and become frustrated, as jobs are not created as per demands, so they are remaining unemployed. The COVID-19 pandemic exacerbated the lack of job opportunities and entrepreneurship facilities, which also increased the rate of graduate unemployment (Shimanta et al., 2020).

2.5. Reasons of Graduate Unemployment in COVID-19 Pandemic

2.5.1. Lockdown Policy

The nationwide lockdown policy of the Bangladesh government has created the largest jobs destruction in the history due to coronavirus outbreak. Thousands of people at home and abroad lost their jobs and many of them try to get their jobs after the lockdown like informal workers (contractual or casual workers), but fail to get their jobs back. Many supervisors, administrative level officers, technicians, and field officers who are graduates lost their jobs. On the other hand, due to the lockdown, most of the companies stopped recruiting the fresh graduates who were looking for new jobs. So, the lockdown policy may save us from infection, but it increases the living costs, which result in enhancing the frustration of graduates (Mahmud et al., 2020).

2.5.2. Changes of Consumer's Buying Patterns

COVID-19 also changed the buying patterns of consumers, as people prefer saving their money for future uncertainties rather than consuming or investing money, which reduces the production and profitability. So, in order to cut costs and survive, most of the companies adopted the lay-off policy, which pushed thousands of graduates out of a job (Frasquilho et al., 2018).

2.5.3. Reduction of Investment

Investment is the important factor of aggregate demand, which influences production capacity of the company as well as the rate of economic growth. Within this pandemic situation, both domestic and foreign investors feel unsecured to invest in Bangladesh, which creates an obstacle to generate employment opportunities for graduates; so almost 3.5 million graduates remain unemployed (Huq et al., 2017).

2.5.4. Reverse Migration from Urban to Rural

During the pandemic, living costs of people rose due to the increase of production costs and mismatch between demands and supply. So, in order to minimize the living costs, nearly two million apparel workers left their places from urban to rural area leaving their low income jobs (Saha, 2020).

2.6. Research Gaps

The most significant literature gap to address graduate unemployment problem in Bangladesh is the lack of focus on entrepreneurial education, and few studies have been done on entrepreneurial ecosystem development in Bangladesh.

Developing and encouraging entrepreneurship can be the great solution of graduate unemployment in Bangladesh. On the other hand, bridging the gap between industry and academia by instilling skills-based teaching and training such as developing problem-solving skill, creativity, adaptability and agility in the rapid changing world in order to build competent workforce for future are important for reducing graduate unemployment in Bangladesh because most of the employers want to recruit skilled people for their companies. But very few studies have been carried out on the outcome of competency-based education, which is the prerequisite for getting jobs in the 21st century and Industrial Revolution 4.0. Instead of instilling skills, educational institutes in Bangladesh offer degrees only by imparting knowledge and wisdom. So, the major gap lies on the education system of Bangladesh, which only focuses on the cognitive development for students resulting in graduates remaining unemployed over the years (Ferdous et al., 2019). This gap is of urgent concern to investigate to tackle the impact of COVID-19 with regard to graduate unemployment.

3. Objectives of the Study

Researchers have conducted different studies on graduate unemployment in Bangladesh, but very few studies have been carried out on the impact of COVID-19 on graduate unemployment. Thus, in order to explore the impact of COVID-19 on the unemployment problems in Bangladesh and find out possible solutions, this study aims to analyze the graduate unemployment problem in Bangladesh and evaluate the impact of COVID-19 on graduate employability and suggest some policies for the government to overcome the problem.

4. Methodology

To achieve these objectives, researchers mainly have used secondary sources as well as focus group discussion, in-depth interviews and telephone interviews with some experts from Bangladesh Investment Development Authorities (BIDA) and Access to Information Program (a2i) from the Government of Bangladesh as primary sources. Secondary data were collected from various newspapers, articles, websites, journals and research papers. However, the secondary data were carefully scanned prior to using them in this study. Moreover, the study is largely qualitative and exploratory in nature.

5. Discussions and Suggestions

5.1. Discussions

Entrepreneurship development can be the great opportunity for Bangladesh to overcome the problem of

graduate unemployment. Previously, little research has been conducted on the development of entrepreneurship in Bangladesh, but now the government of Bangladesh focuses on developing entrepreneurial ecosystem in order to ensure employment for all in the “Mujib Year”. The Prime Minister advised young graduates to come up with new ideas and use their talents and creativity in order to enhance the country’s job market. To encourage entrepreneurship, the government awarded 22 young entrepreneurs the 2019 National Youth Award (Ullah, 2020). Most of the graduates in Bangladesh tend to be employees rather than become an entrepreneur due to lack of entrepreneurial education. However, the good news is that the department of Youth development and ICT ministry are arranging different agro-entrepreneurship, freelancing and self-employment training programs for new entrepreneurs in every district and the Ministry of Finance is also committed to providing support and appropriate tools for the young entrepreneurs during the time of COVID-19. The young graduates are now involving themselves in building their own enterprise in ICT, setting up agro- and dairy-based production units, handicrafts, restaurants and food carts and taking up freelancing for outsourced work to cater to the demand for gig economy (Islam, 2020).

Various industries in Bangladesh are booming in this situation of COVID-19 like the ICT industry, RMG industry, and health and agro-based industries in which huge numbers of skilled graduates are required. About 2.2 million skill-based jobs are vacant in various sectors of Bangladesh and every year such vacancy for skilled workers is increasing (Kashem, 2017). Graduates must have the skills like scientific literacy, ICT literacy, financial literacy, civic literacy, critical thinking and problem-solving ability, communication and collaborative skills, creativity and innovation, digital-adaptability, leadership, curiosity, futures literacy, commercial and social awareness (Reaves, 2019). The industry-academia gap is another reason why many graduates are unemployed in Bangladesh. Employers many times complain that they do not get skilled people according to the market demand and in most cases they are bound to recruit expertise from neighboring countries like India, Pakistan, Sri-Lanka, even China. In Bangladesh, about one million people from India, Pakistan, Sri-Lanka and China are working, so one million people of other countries are occupying the position of one million unemployed graduates of Bangladesh. The deficiency of human resources in eight different sectors of Bangladesh is estimated at about 17,27,150 and employers cannot recruit in these positions due to lack of skilled manpower (Kashem, 2017). However, in the 8th five-year plan (FY 2021–25) ICT Division of Bangladesh targeted to train up 40% workforce based on professional skill requirements of 21st century and 4th Industrial Revolution (Karsten et al., 2020).

Thus, the present labor markets expect people with specialized knowledge and appropriate skills with proper attitude, but the current education system of Bangladesh nurtures students only for cognitive development. The system has failed to develop competent graduates for employment to a great extent. Understanding the limitations of degree-based education system worldwide, Google has recently announced the provision of professional courses to teach how to get in-demand jobs in this situation of COVID-19. Like Udemy and Coursera, this training solution is expected to ensure employment opportunities for anyone that traditional college/university degrees cannot do. Likewise, a digital learning platform in Bangladesh named GoEdu offered by Daffodil International University is offering various professional courses on completion of which an individual will be able to acquire skills required for jobs locally and globally. It is a demand of the time that educational institutes can initiate such online courses like GoEduis, catering to the need of the graduates seeking jobs.

The study done by Kashem (2017) also revealed that Bangladesh will need about 88.7 million skilled manpower by 2025 of which more than half should acquire the skills needed for the 4th Industrial Revolution as the nature and types of jobs are ever-changing. Several types of jobs exist at present that the world did not know 10 years back. Prime Minister of Bangladesh has recently announced reforming the education system by giving priority on up-skilling, re-skilling and vocational training in the conference of “Skills Readiness for achieving SDG and adapting 4IR” on February 2, 2020. So, to prepare this large number of human capitals for the job market, the government should adopt some policies to overcome this challenge (Mamun et al., 2020).

5.2. Policy Responses Suggested for the Government of Bangladesh

From a managerial perspective, some policy responses have been suggested for Bangladesh to limit the impact of the COVID-19 pandemic with regard to graduate unemployment problem in Bangladesh.

Reverse Migration

To combat the challenge of reverse migration during COVID-19, the government of Bangladesh should decentralize the industries and invest more in the agricultural sector to ensure employment opportunities for the graduates in rural areas. Government should make economic and social investment at sub-district level for improving the areas of healthcare, agriculture, education, and for creating income generating opportunities to overcome this crisis (Bidisha, 2020).

Proper Utilization of Funds

Interest-free microfinance provided to the needy people in rural areas can improve the living standard of the poor and eventually alleviate their poverty. This model was applied by the Management of Daffodil International University to provide the poor with the funds for purchasing necessary equipment like sewing machines, learning tailoring, doing fisheries, nursery, poultry or dairy farm, making handicrafts or furniture, starting small businesses of grocery or medicine stores, farming, etc. (Khan et al., 2020). The government can take such initiatives to make proper utilization of such funds on creating employment opportunities.

Employment Subsidies

Government may provide tax breaks or subsidies to the companies during this time of pandemic so that companies do not lay off their employees who will be added to the current unemployed graduates. Although it will be expensive, it will encourage the companies to retain their present employees in the long term. Laid-off employees add to the rate of unemployment (Khatun & Saadat, 2020).

Job-Based Education Systems

Government of Bangladesh should focus more on developing competency-based education systems. For instance, Daffodil International University introduced a course on Employability, which aims to make graduates competent for the job market through the process of learning by doing in simulation of apprenticeship program. Through this course, students gain practical experience by working with operational leaders of various companies through job shadowing. Students who do well in the process are essentially recruited by the same companies. Other universities should take such measures to develop competency-based courses, which can ensure employability of their graduates.

ICT-based Training

One of the major reasons why the graduates in Bangladesh remain unemployed is lack of ICT knowledge and skills. The government already invested \$11.5 million for establishing 28 Hi-Tech parks in order to develop ICT infrastructure development. But this is not enough for 3.5 million graduates unemployed. So, the government should set up 64 Hi-Tech parks in each district and arrange ICT-based training continuously to develop their ICT skills in addition to establishing ICT based industries. Bangladesh has a vast potential to progress in the ICT sector as in the past decade the country generated about \$300 million yearly revenue. Companies like Belancer and Joom Shaper have been successful in establishing online freelancing marketplaces in Bangladesh recently. So, the government should encourage more such companies to develop the youth

market, which will reduce the graduate unemployment to a great extent (Mallick & Biswas, 2020).

Online professional skills development courses

During this pandemic situation, online professional courses have been useful for the graduates to acquire skills, which will help graduates to find jobs. Like Coursera, some private universities in Bangladesh have developed their individual digital platforms such as GoEdu and Skills.jobs to offer online professional courses to make graduating students skilled and competent. Government should encourage public universities too to introduce such globally accepted courses to develop the students.

Credit programs for generating employment

Government of Bangladesh should start micro-credit programs (giving small loans to the beneficiaries) for the income-generating functions in order to generate more employment. The unemployed graduates can easily start self-employment activities during the COVID-19 pandemic like small business, poultry farming, dairy farming, hatching, etc. So, the government should launch a fund for the small scale or self-employed entrepreneurs.

Public Works Project

During the COVID-19 pandemic, the government should invest more in public works such as establishing public companies, hospitals, constructions and public markets in order to generate more employment opportunities. For example, during the 1998 financial crisis, the Republic of Korea generated about 440,000 jobs and 1.2 million jobs the following year (Shammi et al., 2020b).

Stimulus Package

Government of Bangladesh should offer effective stimulus package for protecting the economy from this pandemic situation, though the Prime Minister has already announced 50 billion BDT for export-oriented industries as stimulus package. But the government should also offer stimulus for SME businesses in order to protect them as millions of people are employed here. Government should keep proper monitoring in order to ensure appropriate use of the stimulus package specially to support the workers of these sectors (Shah & Solangi, 2019).

Entrepreneurship Development

Bangladesh entrepreneurial ecosystem is considered as the untapped goldmine of South Asia. Hence, the government should provide more support to young graduates to involve themselves in technopreneurship, agro-entrepreneurship, self-employment and freelancing (Bari et al., 2020). The country has 62% young people

among whom 98% have mobile phone connection while 62% have Internet connectivity. More than 102 million people in Bangladesh are connected with Internet and the COVID-19 pandemic also enhances the use of ICT devices in the sector of business, education, agricultural commerce, and healthcare. The median age of the people is 27.9 years. So, to draw the benefit of the demographic dividend, the government should focus on developing the youth who are innovative and risk-takers. The entrepreneurship ecosystem of Bangladesh remains at present at an inflection point with \$200 million foreign investments in the name of venture capital and corporate investors in different industries such as High-Tech, Fin-Tech, RMG, Logistics and Constructions. More than 1,000 startups, which are in the pipeline, will be able to generate approximately 1.5 million employment opportunities for the graduates by 2025. So, the government of Bangladesh should encourage and provide incentives to the top domestic and foreign investors who will invest in the startup businesses (Akter & Iqbal, 2019).

Moreover, creating entrepreneurs within the university framework can strength the industry-academy relationship and make an impact on generating new employment opportunities in the country. Universities can create incubators to develop, nurture, initiate and implement a business idea from prototype to a viable product. Dhaka University, Brac University and Daffodil International University already established entrepreneurship centers, innovation lab, and departments are taking various initiatives for creating entrepreneurs. Further study can be carried out on the effectiveness of such initiatives. The government of Bangladesh should encourage all other universities to develop a university-based entrepreneurial ecosystem that can play a vital role for generating innovative ideas to successful commercialization (Shil et al., 2020).

6. Conclusion

Graduate unemployment has become the most severe problem in Bangladesh as a developing nation and this problem is becoming more acute by the day. In this situation of COVID-19, the government of Bangladesh should focus more on developing the aforesaid policies and its implementation, considering demand and supply side effects of both domestic and global labor markets. Government has taken steps to reform the education system and include skills-based curricula in addition to introducing more vocational and technical training and professional courses, which will ensure jobs for the graduates. Government of Bangladesh is now appreciating the entrepreneurship development through providing loans with low interest, technical support and awarding the successful entrepreneurs, but considering the large number of graduate unemployment, the government should raise more funds, provide more support, and encourage people

to establish and be involved in agro-based firms, healthcare services, self-employment activities and freelancing, which will eventually help to overcome the unemployment problem especially in this pandemic situation. As SME is regarded as a thrust sector in Bangladesh, entrepreneurship curricula should be incorporated in the syllabuses of schools, colleges and universities. By developing human capital and entrepreneurial ecosystem of Bangladesh, the government can go a long way to solve the graduate unemployment problem of the country in the long run.

References

- Akter, B., & Iqbal, A. (2019). Educational Entrepreneurship: A New Dimension of Creating Entrepreneurial Ecosystem. In: *13th Biennial Conference on Entrepreneurship*. Entrepreneurship Development Institute of India, Delhi: Bookwell, pp. 463–471
- Alam, M. N., Alam, M. S., & Chavali, K. (2020). Stock market response during COVID-19 lockdown period in India: An event study. *Journal of Asian Finance, Economics and Business*, 7(7), 131–137. <https://doi.org/10.13106/jafeb.2020.vol7.no7.131>
- Bari, M. K., Obayed, S. N., & Tahmida, Q. M. (2020). Opportunities and Shortcomings of Developing and Implementing Academic Entrepreneurial Activities in Bangladesh. *Preprints* 2019, 2019080158. <https://doi.org/10.20944/preprints201908.0158.v1>
- Bidisha, S. H. (2020). *Reverse migration needs to be supported by proper policies*. Retrieved from <https://tbsnews.net/thoughts/reverse-migration-may-yield-good-results-if-supported-proper-policies-104275>
- Bhuiyan, A. I., Sakib, N., Pakpour, A. H., Griffiths, M. D., & Mamun, M. A. (2020). COVID-19-related suicides in Bangladesh due to lockdown and economic factors: case study evidence from media reports. *International Journal of Mental Health and Addiction*. <https://doi.org/10.1007/s11469-020-00307-y>
- Ferdous, M. Z., Islam, M. S., Sikder, M. T., Mosaddek, A. S. M., Zegarra-Valdivia, J. A., & Gozal, D. (2020). Knowledge, attitude, and practice regarding COVID-19 outbreak in Bangladesh: An online-based cross-sectional study. *PLoS One*, 15(10), e0239254.
- Ferdous, Z., Asad, I., & Deeba, S. R. (2019, October). Analyzing the Factors Contributing to Graduate Unemployment. In: *2019 IEEE Global Humanitarian Technology Conference (GHTC)* (pp. 1–4). IEEE.
- Financial Express. (2019). *28 hi-tech parks to create 300,000 jobs*. Retrieved from <https://thefinancialexpress.com.bd/economy/28-hi-tech-parks-to-create-300000-jobs-1553954943>
- Frasquilho, D., de Matos, M. G., Gaspar, T., & de Almeida, J. C. (2018). Young people's well-being and the economic crisis: How does parental unemployment and family wealth affect the downturn experience? *Children and Youth Services Review*, 69, 219–222.
- Haque, T., Hossain, K. M., Bhuiyan, M. M. R., Ananna, S. A., Chowdhury, S. H., Islam, M. R., & Rahman, M. M. (2020). Knowledge, attitude and practices (KAP) towards COVID-19

- and assessment of risks of infection by SARS-CoV-2 among the Bangladeshi population: An online cross sectional survey. Research Square. <https://doi.org/10.21203/rs.3.rs-80033/v1>
- Huq, S. M. M., Huque, S. M. R., & Rana, M. B. (2017). Entrepreneurship Education and University Students' Entrepreneurial Intentions in Bangladesh. In: *Entrepreneurship: Concepts, Methodologies, Tools, and Applications* (pp. 221–246). IGI Global.
- Hwang, Y. (2017). What Is the Cause of Graduates' Unemployment? Focus on Individual Concerns and Perspectives. *Journal of Educational Issues*, 3(2), 1–10.
- Islam, M. B. N. (2020). Institutional Support for Entrepreneurship Development in Bangladesh. *Entrepreneurship Review*, 1(1), 10–21.
- Karim, M. R., Islam, M. T., & Talukder, B. (2020). COVID-19's impacts on migrant workers from Bangladesh: In search of policy intervention. *World Development*, 136, 105123.
- Karsten, I., van der Merwe, M., & Steenkamp, K. (2020). Empowering accounting students to enhance the self-determination skills demanded by the fourth industrial revolution. *South African Journal of Higher Education*, 34(2), 36–58.
- Kashem, A. (2017). Jobs Available, Not Skilled Workers, The Kaler Kantho. Retrieved from <https://www.ekalerkantho.com/arc/archive/2017-08-02>
- Khan, K., Zhao, H., Zhang, H., Yang, H., Shah, M. H., & Jahanger, A. (2020). The Impact of COVID-19 Pandemic on Stock Markets: An Empirical Analysis of World Major Stock Indices. *Journal of Asian Finance, Economics and Business*, 7(7), 463–474. <https://doi.org/10.13106/jafeb.2020.vol7.no7.463>
- Khan, S. M., Shahriar, M. S., Bipasha, M. S., Rahman, S. N., & Zayed, N. M., (2020). Capacity Development of The Poor at Kallyanpur Union In Bangladesh: A Case Study on Poverty Alleviation Project. *International Journal of Management*, 11(7), 226–225.
- Khanthavit, A. (2020). Foreign Investors' Abnormal Trading Behavior in the Time of COVID-19. *Journal of Asian Finance, Economics and Business*, 7(9), 63–74. <https://doi.org/10.13106/jafeb.2020.vol7.no9.063>
- Khatun, F., & Saadat, S. Y. (2020). *Youth Employment in Bangladesh*. Singapore: Springer
- Killeen, B. D., Wu, J. Y., Shah, K., Zapaishchikova, A., Nikutta, P., Tamhane, A., & Unberath, M. (2020). A County-level Dataset for Informing the United States' Response to COVID-19. Cornell University. *arXiv preprint arXiv:2004.00756*.
- Mahmud, M. S., Talukder, M. U., & Rahman, S. M. (2020). Does 'Fear of COVID-19' trigger future career anxiety? An empirical investigation considering depression from COVID-19 as a mediator. *The International Journal of Social Psychiatry*. <https://doi.org/10.1177/0020764020935488>
- Mallick, U. K., & Biswas, M. H. A. (2020). Mathematical Approach with Optimal Control: Reduction of Unemployment Problem in Bangladesh. *Journal of Applied Nonlinear Dynamics*, 9(2), 231–246.
- Mamun, M. A., & Ullah, I. (2020). COVID-19 suicides in Pakistan, dying off not COVID-19 fear but poverty? The forthcoming economic challenges for a developing country. *Brain, Behavior, and Immunity*, 87, 163–166.
- Mamun, M. A., Chandrima, R. M., & Griffiths, M. D. (2020). Mother and son suicide pact due to COVID-19-related online learning issues in Bangladesh: An unusual case report. *International Journal of Mental Health and Addiction*, 1–4.
- Mohiuddin, A. K. (2020a). A Pandemic Review of Covid-19 Situation in Bangladesh. *The American Journal of Medical Sciences and Pharmaceutical Research*, 2(05), 38–50.
- Mohiuddin, A. K. (2020b). An Extensive Review of Health and Economy of Bangladesh Amid Covid-19 Pandemic. *European Journal of Sustainable Development Research*, 4, em0139. <https://doi.org/10.29333/ejosdr/8433>
- Moudud-Ul-Huq, S., Akter, R., & Biswas, T. (2020). Impact of Financial Crisis on Credit Risk: Pre-and Post-financial Crises in an Emerging Economy. *FIIB Business Review*, 2319714520923952.
- Neazy, S. N. (2019). Rise of the educated unemployed. Retrieved from <https://www.dhakatribune.com/opinion/op-ed/2019/06/28/rise-of-the-educated-unemployed>
- Reaves, J. (2019). 21st-Century Skills and the Fourth Industrial Revolution: a Critical Future Role for Online Education. *International Journal on Innovations in Online Education*, 3(1).
- Shah, G. M., & Solangi, H. A. (2019). Strategy to Create Job Opportunities in Less-Developed Countries Case study of Afghanistan and Bangladesh. *Asia Pacific-Annual Research Journal of Far East & South East Asia*, 34.
- Shammi, M., Bodrud-Doza, M., Islam, A. R. M. T., & Rahman, M. M. (2020a). Strategic assessment of COVID-19 pandemic in Bangladesh: comparative lockdown scenario analysis, public perception, and management for sustainability. *Environment, Development and Sustainability*, 1–44.
- Shammi, M., Bodrud-Doza, M., Islam, A. R. M. T., & Rahman, M. M. (2020b). COVID-19 pandemic, socioeconomic crisis and human stress in resource-limited settings: A case from Bangladesh. *Heliyon*, e04063.
- Saha, S. K. (2020). COVID-19 EMERGENC, Reverse migration issues. Retrieved from <https://www.newagebd.net/article/110168/reverse-migration-issues>
- Shil, M., Shahriar, M. S., Sultana, S., Rahman, S. N., & Zayed, N. M. (2020). Introduction To University Based Entrepreneurship Ecosystem (U-Bee): A Model Case Study From Bangladesh. *International Journal of Entrepreneurship*, 24(1).
- Shimanta, M. L. R., Gope, H., & Sumaiya, I. J. (2020). Readymade Garments Sector and COVID-19 in Bangladesh. *Preprints 2020*, 2020060336. <https://doi.org/10.20944/preprints202006.0336.v1>
- Ullah, A. M. (2020). Development of Entrepreneurship in Bangladesh: Challenges and Possibilities. Retrieved from [http://www.ijmra.us,10\(04\)](http://www.ijmra.us,10(04)).
- Zhang, L. N. (2018). What are the Causes and Consequences of Graduate Unemployment in China? *DEStech Transactions on Social Science, Education and Human Science*. <https://doi.org/10.12783/dtssehs/meit2018/27641>