THE IMPACT OF COVID 19 ON HIGHER EDUCATION AND WAY FORWARD: THE BANGLADESH PERSPECTIVE

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ABSTRACT

An online survey was conducted to assess the impact of COVID-19 on higher education of public and private universities of Bangladesh and the time frame of data collection was from August 25 to September 10, 2020. To collect data a structured questionnaire link was used and 'Google form' was sent to respondents through email, Facebook messenger, WhatsApp. A total of 434 respondents participated and in this survey. To measure the impact of COVID-19 on higher education, a simple percentage distribution and descriptive statistics used. It's found from the analysis that almost 70% of learners were involved in e-learning during this pandemic situation. In this pandemic situation students have been facing various problems such as anxiety, depression, low quality internet connectivity, uncomfortable study environment at home. Students especially from distant areas and demoted sections face huge problems regarding study in this pandemic. This study has suggested some recommendations to the authorities of educational institutions, to the government and policymakers for betterment of students. Immediately some strategies are needed to build a strong and steady education system which will ensure to develop skills for employability and productivity in the mind of young generations.

Key words: COVID-19, Online Learning, Higher Education

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1. INTRODUCTION

The COVID-19 pandemic has had a major effect on people's lives and lifestyles since its first outbreak in china between late 2019 and early 2020. The most impacted viruses of the country are facing an ongoing health crisis and the consequences of which will long influence their economic and social system. The need to preserve social distance and to avoid the spread of the infection has resulted in a change in the distribution and delivery of a wide range of services. Such examples include the growing use of home delivery systems, the move to online lessons and remote work solutions (Favale et al, 2020). Coronavirus disease (COVID-19) first appeared in Wuhan city of China at the end of last year of 2019. On 11 March 2020, the rapid spread of COVID-19 has prompted the World Health Organization (WHO) to label it a 'pandemic' WHO, 2020; Pelmin, 2020). Gonzalez et al. (2000) mentioned in their study that about 600 million learners worldwide are affected provided the majority of government all over the world have set a mutual goal decreasing the extent of highly contagious disease by executing by executing lockdowns, societal distances; not engaging face to face teaching and migration restriction.

As stated by UNSECO as of 1 June 2020, 1, 2 billion learners worldwide (68.0 per cent of the total enrolled learners worldwide) were affected by the closure of the academic organization in 144 countries, whereas all the academic institutes have stayed closed in Bangladesh since 17 March. More than 40 million students have lost their link to their regular education, and due to the financial crisis, a large number of these students may never return to school again. The reduction of school hours, however, is not the only effect of the Covid19 crisis. In addition to schooling, schools are also a critical source of social services, education, wellbeing and psychosocial help for children and young adults. Consequently, in addition to learning losses, school closures have far reaching effects on social and economic problems such as school dropouts, digital divide. A wider and deeper consequence of the Covid-19 education pandemic may emerge from the economic downturns caused by the pandemic control measures. SANEM (South Asian Network on Economic Modeling) estimates based on the latest Household Expenditure Survey (HIES) indicate that 23.90% (or 8.4 million) of the students' families were below the poverty line before the crisis. As the crisis prolongs, assuming a three-month lockout after 25 March and thus a 25.0 percent decrease in annual per capita income, SANEM estimates that as many as 43.90 percent of the families of the students could fall below the poverty line (primary: 51.70 percent, secondary: 42.40 percent; SSC / HSC: 30.20 percent; and university: 19.0 percent). Therefore, in this crisis, there could be as many as 7.70 million new student families dropping below the poverty line, bringing the total number of students below the poverty line to 16 million (Financial Express, 2020). School facility closures due to the outbreak COVID-19 have profound implications for education. According to the study of Abidah, Hidaayatullaah, Simamora, Fehabutar, & Mutakinati (2020), it is found that through online learning teachers are instructed to teach during the lockdown. To overcome the mental stress and anxiety during the lockdown it is important to continue education through adopting innovative teaching techniques (Raju, 2020). (Strielkowski & Kumar (2020) identified that due to the eruption of COVID 19 the digital revolution has occurred in higher education through different platforms such as online class or lectures, teleconferencing, online exams, open book exam and interaction through different virtual groups. Manzoor, (2020) mentioned that often

the online mode of the teaching learning process discriminates against disadvantaged and oppressed students. It is understood that students with hearing impairments face difficulties in online learning. The present study objective is to identify the teaching learning status, learning methods and challenges related with study throughout this lockdown within COVID-19 pandemic.

2. DATA AND METHODS

This study is completely online survey-based report of 434 higher education including graduate and undergraduate students who studying in various public and private universities of Bangladesh.

2.1 Collection and procedures

From August 25 to September 10, 2020, information was collected to conduct the online survey. To collect information a structured questionnaire was sent to the students as ‘Google Form’ through their email, messenger, WhatsApp. This research adapted the questionnaire designed by Kapasia et al. (2020). Before conducting the survey it was confirmed that participants are fully agreed to the online survey and a total of 434 students provided information regarding the survey.

2.2 Data Analysis

To understand the study descriptive statistics were carried out for data analysis. Statistical Package for Social Science (SPSS Version: 22) was used to analyze the learning stance, mode of learning, thoughts and attitudes about educational problems and decision during this pandemic.

3. RESULTS AND DISCUSSION

3.1 Participant’s characteristics

Table 1 Characteristics of the study participants

Characteristics	Variables	Frequency (n)	Percentage (%)
What is your gender?	Male	266	61.3%
	Female	168	38.7%
What age group do you belong to?	18-20 years	110	25.3%
	21-23 years	246	56.7%
	24-26 years	64	14.7%
	Above 26 years	14	3.2%
Is your institution/university a private or public one?	Public	72	16.6%
	Private	362	83.4%
Are you an undergraduate or a postgraduate student?	Postgraduate	356	82.0%
	Undergraduate	78	18.0%
Monthly income of the family	Below 30,000	134	30.9%
	30,000–50,000	166	38.2%
	50,000–80,000	84	19.4%
	Above 80,000	50	11.5%
What is your subject or discipline?	Business (BBA, Marketing, Finance, Accounting, MIS, HR, etc.)	352	81.1%
	Science (CSE, software, Textile, EEE, Pharmacy, Engineering, etc.)	62	14.3%
	Arts (English, JMC, Law, etc.)	20	4.6%

Table 1 shows the demographic characteristics of the respondent of this study. From 434 students near to two thirds of them were male and rest of them were female. The highest number of students are from the age group of 21 to 23 years (56.7%) followed by 18-20 years (25.3%). The majority of the students were from private universities (83.4%) and undergraduate students (82.0%), with business discipline almost (81.1%). The monthly income shows that 38.2 % student's family income range was from TK 30,000 to 50,000 followed by 30.9% student's family income range was below 30,000.

Table 2 Students doing online classes form Different divisions.

Characteristics	Division	Frequency (n)	Percentage (%)
From which division you are joining online classes?	Dhaka	240	55.3%
	CTG	45	10.4%
	Khulna	41	9.4%
	Mymensingh	19	4.4%
	Rajshahi	48	11.1%
	Rangpur	25	5.8%
	Sylhet	2	.5%
	Barisal	14	3.2%

Table 2. The highest percentage of students was doing online classes from Dhaka division (55.3%).

3.2 Knowledge and Attitudes Regarding COVID-19

Table 3 Knowledge and attitudes regarding COVID-19

Characteristics	Variables	Frequency (n)	Percentage (%)
When did you get to know about this Covid-19?	Jan-20	208	47.9%
	Feb-20	116	26.7%
	Mar-20	110	25.3%
From which source you get to know about Covid-19?	Newspaper	32	7.4%
	Television	88	20.3%
	Social Media	303	69.8%
	Personal Contact	11	2.5%
In which place you are living during lockdown?	At my home	389	89.6%
	Relative home	7	1.6%
	Mess	5	1.2%
	Hostel	1	.2%
	Rented house	32	7.4%
If you are not staying at home, what difficulties are you facing during lockdown?	Food	42	9.7%
	Health	110	25.3%
	Financial	282	65.0%

Table 3 displays the knowledge and attitudes of students during Covid-19. Of 434 respondents, 208 students (47.9%) got to know about this virus COVID 19 in the month of January 2020, more than two third students (69.8%) acquired knowledge or information about this deadly virus COVID 19 from social media which indicates the awareness of various. The highest number of students (89.6%) stated that during the lockdown situation they were at their own home. It is clearly visible that during this lockdown the students who only stayed their own home were facing huge problems related to financial (65%) then 25.3 % students faced health problems as well.

3.3 Learning Status and Academic Sphere During the Lockdown

Table 4 Learning status and academic sphere during the lockdown.

Characteristics	Variables	Frequency (n)	Percentage (%)
Method of learning during COVID	Both online and textbook	147	33.9%
	Online studying	278	64.1%
	Reading textbook with own effort	9	2.1%
Syllabus Covered	Less than 50%	97	22.4%
	50%-80%	216	49.8%
	More than 80%	59	13.6%
	Final Exam completed	29	6.7%
	Just started semester	33	7.6%
How much time do you spend in study during lockdown?	Less than normal time spending	239	55.1%
	More than a normal time spending	97	22.4%
	Same as before lockdown	98	22.6%
Do you have any separate reading room for study?	Yes	261	60.1%
	No	173	39.9%

Quite a few questions were asked to find out the overall learning statues and academic spheres of students during this lockdown which includes methods of learning, syllabus covered, and time spending for study with the information of spate reading room at home (Table 4). During the lockdown situation majority of the students were continuing their learning with the method of online studying (64.1%), whereas second highest number of students (33.9%) continue their study with both text book and online study and a very few number of students study through reading textbook with own effort (2.1%). Quite satisfying result found from the study that despite the lockdown situation 50% to 80% syllabus was covered which was ensured by majority of the students (49.8%). From the study it is found that 55.1% students which means half of the students mentioned that during this lockdown they spend less time in study compare to normal time. Among 434 students, 261 students (60.1%) had isolated study rooms for study.

3.4 Information About Online Classes

Table 5 Information about online classes.

Characteristics	Variables	Frequency (n)	Percentage (%)
Have you ever attend online classes before lockdown situation?	Yes	96	22.1%
	No	338	77.9%
How many online classes you have attended for online classes?	Above 3 days per week	304	70.0%
	Below 3 days per week	73	16.8%
	Daily	57	13.1%
What devices or gadgets you have used for joining online classes?	Android Mobile	318	73.3%
	Laptop/Desktop Computers	115	26.5%
	Tab	1	.2%
Ownership of the devices or gadgets for online classes	Own	401	92.4%
	Hired from relatives	13	3.0%
	Hired from neighbors	7	1.6%

	Hired from friends	13	3.0%
Individuals conducted online classes at lockdown	University Teacher	289	66.6%
	Home tutor	119	27.4%
	Through conversation with friends	26	6.0%

A number of questions were asked about the overall information of online classes including experience of online classes, attendance of online classes per week, gadgets used in online classes by students, possession of the gadgets which was used in online classes and individuals who were taking classes at lockdown (Table 5). The majority of the students (77.9%) reported that they did not attend online classes before lockdown. On the other hand it is found that a large number of students (70%) stated that they used to do online classes 3 days or above per week. Of 434 students 318 students (73.3%) used Android mobile for attending online classes whereas the highest number of students (92.4%) admitted that the gadgets that they used for online classes were possessed by them. It is reported by a large number of students (66.6%) that university teachers conducted online classes at lockdown.

3.5 Platforms for Online Classes, Materials Sharing, and Evaluation

Table 6 shows what platforms were used for online classes, how materials were shared with the students and what platforms were used to evaluate or assess the students during this lockdown situation. The result shows that the highest number of students (61.3%) used Google Meet for attending online live classes, followed by Zoon app (13.4%), Facebook live (11.8%). Students also used different platforms for material sharing as sometimes they did not attend the live classes due to poor internet connectivity. The report result shows that an equal number of students (31.8%) used both their institution's self-developed platform and Google Classroom, students (22.1%) were also comfortable to share their material through Facebook messenger. Half of the respondents (50.2%) think that the software that students were using for their live classes and sharing their study material in that some specifications needed to be added, modified or changed. On the other hand teachers used many platforms for ensuring better teaching-learning through online classes as well as they also tried to ensure proper evaluation through different platforms like email, WhatsApp group, institutions self-developed platform etc. The respondent mentioned that their evaluation was conducted mostly through email (34.1%), followed by the institution's self-developed platform (31.3%), WhatsApp group (22.1%). Additionally student's opinions were also taken about the continuation of online classes. Most of the respondents (31.1%) think that universities and teachers should continue online teaching after withdrawing COVID-19 lockdown, second highest number of respondents (26.0%) think that universities and teachers should continue online teaching but in a limited way. A large number of students (74.2%) think the Government should assist universities to develop required infrastructures and facilities to run online teaching.

Table 6 Platforms for online classes, materials sharing, and evaluation.

Characteristics	Variables	Frequency (n)	Percentage (%)
Platforms usually used for Live online classes	Google Meet	266	61.3%
	Zoom app	58	13.4%
	YouTube Live	18	4.1%
	Skype	4	.9%
	Facebook live	51	11.8%
	Google Classroom	27	6.2%
	Team Link	10	2.3%
The platforms for educational material Sharing	Institution's self-developed platform	138	31.8%
	YouTube video upload	16	3.7%

	Facebook Messenger	96	22.1%
	Email	14	3.2%
	WhatsApp	28	6.5%
	Google Classroom	138	31.8%
	Institution's website	3	.7%
	Dropbox	1	.2%
Do you think that these foreign software packages needed to be customized?	No customization is required	64	14.7%
	Some specifications needed to be added/modified/changed	218	50.2%
	Bangladeshi software should be introduced/used	93	21.4%
	Not applicable	59	13.6%
Assessment for the online platform	Institution's self-developed platform	136	31.3%
	Google classroom	9	2.1%
	Google form	26	6.0%
	WhatsApp Group	96	22.1%
	Microsoft team	6	1.4%
	Email	148	34.1%
	UCAM	5	1.2%
	Not yet evaluate through online platform	8	1.8%
Do you think that universities and teachers should continue online teaching after withdrawing COVID-19 lockdown?	Yes, they should to continue	135	31.1%
	They should continue but in a limited way	113	26.0%
	No, they should not continue as traditional face-to-face is enough	93	21.4%
	Well, they should use both face-to-face and online teaching approaches	93	21.4%
Do you think the Government should assist universities to develop required infrastructures and facilities to run online teaching?	Yes, I think so	322	74.2%
	No, universities should do it for themselves	31	7.1%
	This is necessary, but I do not know who should do it	53	12.2%
	This is not necessary at all	28	6.5%

3.6 Opinion regarding academic decisions and UGC recommendations

Quite a few questions were asked to the students about their opinion about academic decision and UGC recommendations during this lockdown situation (Table 7). From 434 respondents more than half of the respondents (52.1%) agreed with the decision of the Bangladesh government for opening the academic institution online after April 14, 2020 which actually indicates that students are concerned about study and their future. Nearly half of the students (42.6%) agreed about the decisions of examination and academic calendar of the UGC committee whereas 173 (39.9%) students do not know about decisions of examination and academic calendar of the UGC committee. However, 187 respondents (43.1%) agree with the recommendation of the academic calendar of UGC approved and on the other hand, 183 respondents (42.2%) had no idea about the recommendation of UGC's proposed academic calendar. The report also shows that a good number of students (46.1%) agreed on the examination system, assessment system, and research, field study recommended by UGC whereas 151 students (34.8%) were not aware about the system of examination, the evaluation system, research areas and field study recommended by UGC.

Table 7 Opinion regarding academic decisions and UGC recommendations.

Characteristics	Variables	Frequency (n)	Percentage (%)
Do you think Bangladesh government has taken a good decision about opening academic activities through online after 14 th April 2020?	Yes	226	52.1%
	No	85	19.6%
	Do not know about this	123	28.3%
Do you agree about the examination and academic calendar of the UGC committee?	Yes	185	42.6%
	No	76	17.5%
	Do not know about this	173	39.9%
Do you agree with the recommendation of UGC's proposed academic calendar?	Yes	187	43.1%
	No	64	14.7%
	Do not know about this	183	42.2%
Do you agree on the examination system, assessment system, and research, field study recommended by UGC?	Yes	200	46.1%
	No	83	19.1%
	Do not know about this	151	34.8%

3.7 Impact of COVID-19 on economic condition and educational attendance

Table 8 Impact of COVID-19 on economic condition and educational attendance.

Characteristics	Variables	Frequency (n)	Percentage (%)
Does your family's financial condition has been affected by covid-19?	Yes	388	89.4%
	No	46	10.6%
Does your family's low income affect your education?	Yes	369	85.0%
	No	65	15.0%
Does covid-19 is the reason of discontinuation of your study?	Yes	306	70.5%
	No	83	19.1%
	Do not know	45	10.4%

Out of 434 respondents, 388 respondents (89.4%) agreed that the financial condition of their family has already been affected by covid-19 pandemic and another large number of respondents (85.0%) also think that their education will be affected by the low income of their family. Additionally quite a good number of students (70.5%) also think that they might have to discontinue their education/study due to the covid 19 (Table 8).

3.8 Problems related to study during the lockdown

The respondents have been asked to rank top five problems/challenges that they face or facing related to study during lockdown. From Table 9, it can be seen that the highest number of students were feeling stress, depressed, and anxious during this lockdown situation. Out of all the alternatives internet connectivity problems has been found to be the second most severe problem faced by the students. At the third place, the problems associated with technical difficulties have been outlined by the respondents. While starting online classes, students feel it is expensive as a huge amount of mobile data has been used during online classes and also after the classes for reading materials as well as considered forth problems or challenges. While studying through online classes, students feel a lack of a favorable environment to study at home is considered a fifth problem. Beyond these problems there were other problems that have been identified by the respondents such as lack of motivation, low income, not having gadgets and digital literacy as well.

Table 9 Problems related to the study during the lockdown.

Characteristic	Variables	Frequency (n)	Percentage (%)	Ranking
What kind of problem/challenges are you facing or faced related to study during lockdown?	Feeling of stress, depression, and anxieties	354	81.57%	1
	Problems related to Internet connectivity	289	66.59%	2
	Technical difficulties with online teaching tools	154	35.48%	3
	Expensive Mobile data	153	35.25%	4
	Is there have any favorable environment available at your home for study	139	32.03%	5
	Lack of motivation to join online learning	111	25.58%	6
	Low income	89	20.51%	7
	Time-consuming resources	89	20.51%	8
	Setting and forgetting online learning activities	84	19.35%	9
	Do not have gadgets for online study	78	17.97%	10
	Eye Problem	65	14.98%	11
	Facing problem as I have lack of Digital Literacy	48	11.06%	12
	Teachers not interested in teaching	28	6.45%	13

4. CONCLUDING REMARKS

This pandemic situation of Covid-19 has made substantial interruptions and troubles in academic and regular life activities. The overall educational status of both undergraduate and postgraduate students has been assessed in this present study. Even though a large number of students are using different types of gadgets and technologies for learning purposes, whereas most of the students face huge problems in online study. The present study has suggested some recommendations to the authorities of educational institutions, to the government and policymakers for betterment of students. Initially, educational institutions should offer special waiver for this pandemic situation. All universities should make a uniform academic plan associated with the government to carry out the learning process during this pandemic situation. The government should take initiative to build the infrastructure for digital teaching learning platforms considering future health concerns. The stakeholders of higher education institutions should arrange development training programs as well as ensure sufficient fund management to improve the education system in this pandemic situation. To handle this critical situation, learning management systems and other open learning sources of digital policy should be adopted by the educational institution. As a final point, to keep the young learners and young generation updated and educated the strong education system should be built urgently to develop their skills for a productive and employable candidate for future.

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