



The Impact of COVID-19 on Postgraduate Students

Shaiful Annuar Khalid^{a,*}, Norshimah Abdul Rahman^b, Rizana Yusof^c and Noraini Nasirun^a

^aFaculty of Business and Management, Universiti Teknologi MARA Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia

^bFaculty of Accountancy, Universiti Teknologi MARA Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia

^cFaculty of Applied Science, Universiti Teknologi MARA Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia

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ABSTRACT

The COVID-19 outbreak has seen significant changes to lives when authorities imposed several regulations to curb transmission. These include movement restrictions, social imprisonment, closure of economic and social sectors including the education sector. One of the groups of students affected by the COVID-19 pandemic is postgraduate students. This study was conducted involving postgraduate students in one of the institutions of higher learning in the north of peninsular Malaysia. In August 2021, a total of 47 postgraduate students were involved in an online survey using Google Form. The students were found to have devices for online learning using Google Meet, Zoom, Webex, and Youtube. Students also reported that they faced difficulty adjusting as well as financial stress. The students also reported that they did not face relationship problems and perceived that the university did support postgraduate students. Among the things that worry students are tuition fees, concerns about being infected with the COVID-19 epidemic, as well as the extension of the study period. Students also hope to use the facilities on campus more often and be appointed as teaching assistants.

*Corresponding author

Email(s): shaiful@uitm.edu.my (S.A. Khalid); shimah70@uitm.edu.my (N.A. Rahman); rizana@uitm.edu.my (R. Yusof); noraini305@uitm.edu.my (N. Nasirun)

Orcid(s): 0000-0002-8924-3361 (S.A. Khalid); 0000-0001-5275-4013 (N.A. Rahman); 0000-0001-7080-9655 (R. Yusof); 0000-0001-6434-090X (N. Nasirun)

1. Introduction

The COVID-19 outbreak was initially detected in December 2019 in the city of Wuhan, Hubei, China, and was recognized as a pandemic by the World Health Organization (WHO) on March 11, 2020 [16]. COVID-19 pandemic is much more than a health crisis. It is a human, economic and social crisis. The pandemic affects almost all economic and social sectors, including the education sector. In mid of March 2020, the Malaysian government issued the first Movement Control Order (MCO) to control the pandemic. There were several more movement control orders introduced until 2021. Most governments had temporarily closed all educational facilities, prohibiting physical learning, to slow the spread of the deadly virus. According to UNESCO [14], the learning of over one billion students in 129 countries around the world has been disrupted. Starting with the closure of all schools in China in March 2019, the starting point of the COVID-19 pandemic virus was followed by the closure of all schools in most countries including Malaysia. The closure of educational institutions at all levels is needed to curb the spread of the epidemic which has infected millions of people.

The COVID-19 pandemic has changed the entire educational program in schools as well as in institutions of higher learning. There has been a significant difference in teaching and learning when all physical lectures had to be replaced with online lectures. The closure of educational institutions has caused the learning system to shift to online methods. This resulted in the rise of digital learning pushing behind conventional classes from primary to tertiary levels [1]. New norms have dragged the education sector towards maximum use of technology [4]. In general, university lectures, which are usually attended by hundreds of students in a hall, can no longer be conducted until an unknown period. In Malaysia, the education system at all levels including higher education institutions will be opened in phases from October 2021. The shutdown of educational institutions owing to pandemic outbreaks, according to Kapasia et al. [7], has had an unprecedented influence on education and academic survival among

students. COVID-19, according to Hussiin [6], has impacted students in a variety of ways, including financial, academic, time management, and health. Students were predisposed to depression, anxiety, loneliness, and suicide thoughts even before the crisis [3], and the COVID-19 issue has compounded these worries. However, hybrid learning methods will continue as we are not yet completely free from this epidemic.

Postgraduate students are among the population groups affected by COVID-19 transmission. A review of existing literature indicates that there are abundant studies related to COVID-19. Nevertheless, not many studies have been conducted to investigate the impact of the COVID-19 on the educational sector including the postgraduate students [10]. To our knowledge, the study by Nasir et al. [10] is the only Malaysian study examining the effects of COVID-19 on postgraduate students. Nasir et al. [10] conducted a study involving almost six hundred postgraduates who investigated the effects of the COVID-19 outbreak on learning adaptability or academic performance, financial stress, ownership of devices as well as social relationships. Students reported to experienced difficulties in data collection, lacking concentration during an online meeting with supervisors, and they have to be more careful in their spending. Delay in a study is also expected. It is also reported that students can adapt the online learning and their social relationship has not been much affected.

A study by Kumari et al. [8] involving 519 undergraduates and postgraduate students in India found that the COVID-19 pandemic has affected the mental health of the students. They have indicated three types of mental health which were panic, worry, and anxiety. Students experience mental health when they listen, think and discuss the pandemic. Additionally, the role of social media and insecurities about the future have also contributed to mental health. The findings reported by Kumari et al. [8] are in line with the results of an earlier study by Chirikov et al. [2], cited in Wasil et al. [15] involving a total of 15,000 postgraduate students in the USA. Between 30-40 percent of respondents reported experiencing signs

of depression, which include feelings of sadness, reduced appetite, weight loss, emptiness, and reported symptoms of anxiety. A review of related literature by Seladorai and Mohamed [12] indicated that the COVID-19 outbreak had a negative impact in terms of technological difficulties, mental and physical health. Additionally, the use of digital learning has also affected the interaction between students and instructors as well as among the students.

Postgraduate students from research mode are believed to receive significant impact as a result of new norms such as movement restrictions as well as the closure of laboratory facilities at the university. The importance of postgraduate studies both to students and the country cannot be ignored. Sharma [13] states that postgraduate studies are needed to produce a highly educated workforce, attract international investment as well as contribute to economic growth. Governments recognize that investing in graduate education has two benefits: it may help countries fulfill the need for skilled teachers at the undergraduate level while simultaneously addressing the need for greater scientific research at the national level. Therefore, more research is needed to understand the extent to which the learning of postgraduate students is affected by the new norms [5] so that follow-up actions can be taken to reduce the negative effects of COVID-19 on postgraduate students. Hopefully, the results of this study will not only add to the relevant literature but also help institutions of higher learning, especially in Malaysia in managing postgraduate students when faced with unexpected crises now and in the future.

Based on the above discussion, this study aims to achieve the following objectives:

1. To determine the extent to which the COVID-19 outbreak affects postgraduate students in terms of adaptability, financial stress as well as social relationships.
2. To determine the possession of communication tools for online learning and online learning methods that are often used.
3. To survey students' perceptions of the assistance and facilities provided by the university.

2. Methods

Data for this study was collected using Google Forms distributed to a WhatsApp group of postgraduate students with the help of the head of the postgraduate unit of a university branch. Researchers have also sent the Google form link to several students individually. In total, out of 85 students who were contacted, a total of 47 students provided feedback. The Google form distributed contains 26 items. Table 1 provides details of the content of the Google form distributed. All the variables were measured using a 5-point Likert scale ranging from 1 — “strongly disagree” to 5 — “strongly agree”. All the variables have an alpha value of more than .70, which indicates that it is suitable for use [11]. The items used were modified from several sources such as Nasir et al. [10], and Kapasia et al. [7]. Data were analyzed using IBM Statistical Package for Social Sciences (SPSS) version 26.0. To achieve the objective of the study, descriptive statistics were used such as mean, frequency, and standard deviation. To facilitate the analysis of mean values, the interpretation scale by Landell [9] is used whereby mean values between 1.00–2.33 are considered as low, 2.34–3.67 is considered as moderate and 3.68–5.00 is considered as high. The study by Nasir et al. [10] has also adopted this guideline.

Table 1
Cronbach alpha for study variables

Variables	Number of Items	Cronbach Alpha
Demographic items	4	—
Adaptability	8	0.82
Ownership of devices & gadget	3	0.73
Financial Stress	4	0.74
Social relationship	5	0.83

3. Result and Discussion

The study sample consisted of 60% (28) men and 40% (19) women. PhD students comprised 56.7% (27) and the rest were master's students (43.3%). The sample also included 66.7% full-time students and the rest (33.3%) were part-time students. The average age was 26.8 years. Students from the field of science and technology and the field of management are balanced.

To achieve the first research objective, an analysis of the mean for all the study variables was conducted. Table 2 shows an analysis of the means for the study variables. As can be seen, for students' adaptability during COVID-19, the mean of 3.44 is a moderate level, indicated that the students agreed that they were somewhat less able to adapt to the changes resulting from the transmission of the COVID-19 outbreak. The students faced difficulties in research work, their progress has been disrupted and they are not comfortable with the online method. Next, using 3 items to measure ownership of devices, the mean of 3.67 is also at a moderate level, reveal that the students reported to have adequate devices or gadgets but they also reported having internet line problems. The mean value of 3.67 for the ownership of devices and gadgets is in line with the data presented in Table 2. Financial stress was measured using 4 items. The mean value of 3.63 indicates that the students reported facing financial difficulties and they have to be careful in their spending. The mean of 4.08 for a social relationship, indicates that the students reported that they are not having any problem in terms of relationships with family members, supervisors, and colleagues. Finally, the mean of 3.82 for university support, indicates that students perceive that support is being provided by the university to the student. The university provides the needed information, invites students to the joint-related online program, provides counseling services, and provides a platform for communicating.

To find out in more detail about the students' responses to the variables of adaptability and financial stress, an item analysis was conducted to see the mean value of each statement. These analyses are

Table 2

Analysis of means for study variables

Variable	Sample Item	Mean	SD	Level
Adaptability	My study progress has been disrupted since the outbreak of COVID-19	3.44	0.57	Moderate
Ownership of devices & gadget	I have adequate personal gadgets and devices for study purposes	3.67	0.55	Moderate
Financial stress	The outbreak of COVID-19 caused me financial difficulties	3.63	0.94	Moderate
Social relationship	My family/spouse gave me encouragement in my studies	4.08	0.67	High
University support	The University consistently invites postgraduate students to follow online programs whether study-related or non-study-related	3.82	0.65	High

shown in Tables 3 and 4, respectively. As indicated in Table 3, the mean values for statements 2, 3, and 7 are high. Based on these mean values, it is clear that postgraduate students are of the view that they are affected in terms of study progress, they feel uncomfortable when not on campus, and worry if the period of study has to be extended. However, the low mean value (2.33) for the first statement that is “I am facing difficulties in collecting research data” is quite opposite to the mean value (3.70) for the second statement that is “My study progress has been disrupted since the outbreak of COVID-19”. It is possible to state that, although students stated that they did not face data collection problems (item 1), however, their studies were disrupted (item 2) due to delays in defending research proposals or difficulty in obtaining face-to-face consultation with their supervisor.

Table 3

Item analysis for adaptability

Number	Item	Mean	SD	Level
1	I am facing difficulties in collecting research data	2.33	0.76	Low
2	My study progress has been disrupted since the outbreak of COVID-19	3.70	1.12	High
3	I feel uncomfortable with my study environment when I am not on campus	3.87	0.97	High
4	I am having difficulties doing the research/ presentation/meetings online	3.67	0.99	Moderate
5	I am not comfortable communicating with supervisors/ university personnel online	3.40	1.16	Moderate
6	I could not concentrate on the supervisors during the online meeting	3.63	1.19	Moderate
7	You worry if your study period has to be extended	4.07	1.02	High
8	Overall, the progress of my study/research has not been significantly affected by the spread of the COVID-19 outbreak	2.83	1.23	Moderate

As for the financial stress variable, the analysis items as shown in Table 4, showed that the students agreed that the COVID-19 outbreak caused them to face financial difficulties, they have to borrow money from family and friends, and they needed to be more careful with spending.

Frequency analysis was conducted to achieve the second research objective. As shown in Table 5, all 47 students have smartphones and PCs/laptops. Less than half have a printer and only a small number

Table 4

Item analysis for financial stress

Number	Item	Mean	SD	Level
1	The outbreak of COVID-19 caused me financial difficulties	4.03	1.07	High
2	I always borrow money from family and friends	2.53	1.57	Moderate
3	The outbreak of COVID-19 caused me to be careful with spending	4.37	0.85	High
4	The outbreak of COVID-19 affected my financial position	3.57	1.36	Moderate

have an Ipad/Tablet. In terms of methods used for online learning, most students use Google meet, followed by Zoom and Webex.

Apart from what the university is doing, students are also invited to give suggestions on how the university can help them. Table 6, provides compilations of suggestions and concerns among the students. In general, the recommendations given are related to a fee reduction, extended duration of the study, more frequent use of university facilities, more frequent online research related programs, wider opportunities to be appointed as UiTM Postgraduate Teaching Assistants (UPTA) as well as suggestions for students to use research facilities at other universities.

4. Conclusion

Overall, the widespread COVID-19 epidemic has affected postgraduate students. This study produced the following findings. First, the COVID-19 outbreak had a moderate effect on students in terms of adaptability and financial stress. Both of these factors are seen as important because the ability to adapt

Table 5

Ownership of devices & methods for online study

Ownership of Devices	Frequency	Percentage
Smartphones	47	100.0%
PC /laptop	47	100.0%
Ipad /tablet	5	10.6%
Printer	20	42.6%
Methods Used for Online Study	Frequency	Percentage
Google Meet	47	100.0%
Zoom	23	48.9%
Webex	10	21.3%
Skype	0	0%
Youtube	7	14.8%
Others	0	0%

to new norms and financial pressures can affect the research progress of postgraduate students for all fields of study. Secondly, postgraduate students also do not face major problems in terms of ownership of the tools needed to pursue online learning. Thirdly, the students stated that the educational institution did provide support to them and lastly, they did not face problems in terms of social relationships. However, attention should also be given to some of the views expressed by the students. Among them are in terms of tuition fees, duration of the study, concerns of COVID-19 infection, the use of research facilities at the university, as well as difficulty in pursuing studies due to movement restrictions. The main disadvantage of this study is the small sample size. Therefore, this study could not confirm that the results of this study

Table 6

Things that concern the students

- Reduction in tuition fees as a result of financial stress
 - Organizing more research-related online clinics
 - The need to use the facilities on campus more often
 - Extended semester
 - More opportunities to be appointed as teaching assistants
 - The need to go to other universities to use their facilities
 - Anxiety if a family member is infected with COVID-19 and will certainly affect studies
 - The problem in completing the research proposal
 - It is difficult to continue studies during MCO
 - The University needs to pay attention to the issues faced by the students
 - Otherwise, the students may have to quit and focus on their wellness and well being
-

were able to represent the entire study population. Nonetheless, this weakness should not preclude confirmation of the assumption that postgraduate students are indeed affected primarily in terms of their finances as well as their ability to adapt. Opening up more opportunities to be appointed as assistant lecturers as well as zakat assistance are among the methods that can be used to reduce the financial stress faced by students. To help students to improve their ability to adapt, among the things that can be done by the university is to provide complete guidelines to facilitate the supervision with a focus on the role of supervisors and students during the epidemic and establish an effective two-way communication system between students and the university. Although at the time of writing this article, there were countries including Malaysia that are formulating specific strategies to move from pandemic phase to endemic, and the education system is also being prepared to reopen in phases, hopefully, the experience

of the education sector especially in handling COVID-19 will be an important experience to deal with any crisis in the future. It is hoped that the education sector will also emerge stronger after the COVID-19 outbreak.

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