
The Impact of COVID-19 on University Student Satisfaction to Online Studies

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Abstract – A severe hindrance to the academic advancement of the students has resulted as a result of the COVID-19 situation. This study was conducted in order to establish the impact of COVID-19 on university students' satisfaction with online services. A qualitative research design was adopted for this study. A Structured Interview was carried out. In the interview session, students expressed their opinions on the impact of COVID-19 on their satisfaction with online services that assist them in meeting their academic objectives. The interview data was analysed using a process known as thematic analysis. The outcomes of the study revealed that students' preparation for online learning was limited as a result of their anxiety over COVID-19 and the lack of adequate resources. According to the students, a big drawback is the interpersonal gap that prevents them from participating fully. The data also suggested that student engagement was a major challenge for online studies. The findings also shed light on the effect of online learning with COVID-19 uncertainty on students' satisfaction with their online learning experiences during the COVID-19 pandemic. As a result, it is critical that universities make better decisions in order to support the resources required for online learning so that it can improve the academic performance and achievement of students in the long term.

Keywords – Student Satisfaction, Online Studies, Online Resources, COVID-19, Academic Performance.

I. INTRODUCTION

Due to the obvious increased propagation of the COVID-19 virus, it is difficult to predict when universities will be able to resume normal academic activities, as well as when students will be able to return to face-to-face study. Since online learning (synchronous or asynchronous) may be done at any time and from any location, it can be a viable alternative to face-to-face settings in times of COVID-19 until everything returns to normal [1]. Unfortunately, in some circumstances, the chance of the virus spreading can only be estimated or inferred from existing data [2]. Many challenges have arisen as a result of the impact of COVID-19 on the academic commitments of students and faculty. University services that were formerly provided face-to-face on campus have now been made available online. The question here is whether or not the students are satisfied with the online service provided by the universities. Furthermore, how has COVID-19 affected the pledges of universities to provide high-quality services to their students [3].

Universities and academic institutions are obligated to do everything in their power to guarantee that the level of academic commitment is maintained at the highest possible level [4]. Because of the COVID-19 scenario, university officials will no longer be held accountable for cancelling face-to-face university activities. Currently, there is no measure that can be used to determine whether or not students would be satisfied with the online manner of conducting academic activities. Furthermore, because COVID-19 is a Pandemic that can affect anyone, it is necessary to undertake a study to determine the relationship between student happiness and online studies as a result of the COVID-19 pandemic [5]. It didn't take long for the idea of bringing all academic activities online to be accepted as the most essential method that colleges should take in order to increase student satisfaction. Face-to-face learning is generally considered to be the best option, but when universities

were shut down indefinitely for the first time in history, the initial expectation was that it would only last a few weeks and that everything would return to normal and academic activities would resume at the vast majority of institutions. However, this was not the case. Unfortunately, COVID-19 was able to spread over the world without restriction. As the number of COVID-19-infected cases continues to fluctuate, colleges are being pushed to develop plans for re-opening their campuses despite the virus's presence on their campuses [6].

In addition, when considering student satisfaction with traditional face-to-face study, which has been largely replaced by online learning as the primary mode of conducting all academic activities at all universities around the world, the current study's findings provide further justification for the research problem identified [7]. Given the impact of the COVID-19 epidemic, it may be possible to examine student satisfaction with online learning, and specifically how colleges ensure that the quality of education is not compromised. In order to better comprehend students' progress as compared to face-to-face learning, the current study prioritised student happiness as the most important factor to consider. Despite the fact that students will understand that when a virus spreads at such a rapid pace, universities will be forced to close their campuses, leaving students with no way to continue their education in person rather than online [8]. Overall student well-being and the aid provided to them both academically and socially are important factors in determining student satisfaction, according to a recent study [9-10].

The purpose of this study is to assess student satisfaction with online learning as a result of the COVID-19 pandemic, in order to better understand the relationship between student satisfaction and online learning adoption. After being mandated to do online learning as a result of COVID-19, it is now important to discover what additional elements may have an impact to online studies, as well as whether students are contented with attending online courses or not. This research is necessary in order to determine whether students with special needs or those who are at high risk of becoming sensitive to COVID-19 are more interested in online education.

The rest of the paper are organised in the following ways: The literature review for the study was presented in Section 2, the research methodology was presented in Section 3, the results and discussion of the research were presented in Section 4, the implications of the research were presented in Section 5, Last but not least, Section 6 is the conclusion, which presents a concise summary of the findings of research.

II. RELATED WORK

Covid-19's impact on university student satisfaction with online courses is an important topic. Because of the increased danger of infection from the COVID-19 virus that comes along with an online education, it is critical to find out if students are satisfied with the university service. There have been earlier studies on the impact of covid-19 on university student satisfaction with online learning. Crucial to that, it was revealed that during COVID-19, students' online learning satisfaction and academic outcomes are influenced by interaction in the process of the online learning [11]. Baber [12] conducted a cross-country study during the COVID-19 epidemic and found that student satisfaction with online learning and learning outcomes was most heavily influenced by interaction. Due to school closures in the United States, Bayham and Fenichel [13] measured child-care obligations for health-care workers in the United States. The study revealed that closing schools lead to unforeseen consequences such as increased costs for child care. Therefore, if mitigating measures aren't taken, it's important to balance the potential avoidance of a pandemic by closing schools with the loss of health-care e-

-employees who might be affected.

El-Sayad et al. [14], who look at the impact of online learning platforms and instructor presence on engagement. Student satisfaction was found to be strongly and directly influenced by behavioural engagement and emotional engagement, but not by cognitive engagement, according to the study's conclusions. Gopal et al. [15] investigate the factors that influence students' satisfaction and performance with online learning during the COVID-19 pandemic periods. Students' satisfaction with online learning during COVID-19 is influenced by the quality of the instructor, the course design, fast feedback, and the expectations of the students, according to the findings. Primary-level kids and their parents have concerns about synchronous instruction during the COVID-19 period, which Jan [16] examined. The findings of the study demonstrated that parents' constant supervision and guidance was required in addition to the teacher's mentorship and direction when teaching online. As a result, students' social skills aren't being developed because they can't connect with their classmates in real-time, according to research. This is something parents have a problem with because it increases their children's screen time. The results of interviews with students suggest that they prefer face-to-face learning to synchronous learning. Despite the fact that remote education is essential in this time of COVID-19 crisis.

The research community need to know how online interactions influence quality of learning now more than ever, especially during this time of COVID-19 when online education is becoming increasingly commonplace around the world [17]. The devastating COVID-19 outbreak associated to education has been highlighted by Sahu [18] as a serious threat to the education and mental health of students and faculty members. Researchers found that sending emails and posting information on university intranets on a frequent basis would be beneficial to students and employees. Students' and employees' well-being should always come first. Students' mental health and well-being should be supported by adequate counselling services. International students' food and housing needs should be the responsibility of the government. Faculty members should embrace technology and pay close attention to students' experiences in order to enrich and enhance the learning process. According to Shahzad et al. [19], males and females at Malaysian universities have a different level of comfort with using E-learning portals than they do with traditional mode of learning.

III. RESEARCH METHODOLOGY

This current study adopts qualitative research methodology as the framework to carried out the research in a set of guidelines outlining the steps necessary. Qualitative research is based on subjective assessments of attitudes, beliefs, and behaviour [20]. Specially this study use interview for data collections, and thematic analysis for evaluation. The justification of choosing this method, lies with the fact that qualitative researchers investigate their subjects' motivations and behaviours in order to obtain a greater knowledge of the varied environment they inhabit as well as their distinct perspectives.

1. *Conceptualization of the Research Study*

Student satisfaction is a huge challenge for universities, particularly when employing the traditional face-to-face style of studies on campus. It is probable that universities may confront even larger difficulties as a result of the change to online mode of study. As part of this current study's conceptual framework, "The influence of COVID-19 on university students" was established to be associated with "Student satisfaction" and "Student performance" for an online method of study (See Figure 1).

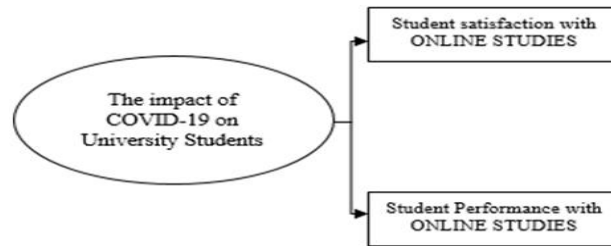


Fig. 1. The Conceptual Framework.

In this study, student satisfaction was viewed as a critical variable in the evaluation of the impacts of COVID-19. In other words, the study tries to establish a link between “student pleasure with online study” and “student performance with online study” in order to determine the influence of COVID-19. According to established fact, student happiness is one of the most often used key performance metrics for higher education institutions. In the COVID-19 environment, this indicator will be a valuable tool for universities to use in evaluating their overall performance based on the quality of their educational programmes. This can be supported by the findings of the study conducted by Weerasinghe et al. [21], which asserts that student happiness has a direct impact on university image.

As depicted in Figure 1, this study conceptualised student performance with their online courses as being determined by the impact of COVID-19 on the students’ learning environment. As a result, if the direction of student performance is “failure,” both institutions and students will identify COVID-19 with that failure. However, if the student’s performance shifts from “failure” to “success,” both institutions and students will not identify this with COVID-19, as opposed to the opposite. That is, when conceiving of how to assess student satisfaction during the COVID-19 epidemic, it is essential to identify and justify the necessary factors that have been employed in past studies to measure student satisfaction. In this regard, it has been discovered that student happiness has a positive and statistically significant impact on student loyalty to their respective universities [22]. In a similar vein, it has been discovered that the image of a university has a favourable and considerable impact on student satisfaction [23]. Furthermore, according to Ammigan and Jones [24], student achievement is the most important element in determining student happiness with their education.

Taken along with the previous research's findings on student satisfaction and student performance, which measured and reported their impact on universities’ image, it is concluded that both student satisfaction and student performance have a direct impact on universities’ images. Students who did not perform well are more likely to express dissatisfaction with their education than students who performed well. However, because the previous studies was not carried out during COVID-19, the current study will strive to determine whether the same issue applies to the COVID-19 circumstance. Hence the interview questions would directly point to these new issues at hand.

2. Sampling and Sample of the Study

The participants in this study were chosen using a process known as purposive sampling. Choosing the right informants is critical to qualitative research because it allows researchers to better understand the issue at hand and the topic at hand. It doesn’t, however, imply that participants and locations were chosen at random, as is common in quantitative studies. Finally, an online Microsoft Teams Meeting was arranged for ten students to conduct an online interview. The students are from four public universities and two private institutions in

Malaysia. Conducting an in-depth interview with the participants is sufficient, as long as the researcher follow the guidelines in Creswell and Creswell [25], which state that the saturation and sample size of a qualitative study should be considered. Once the categories (or themes) have been exhausted in the course of interview, even with two informants, data collection can be put on hold.

3. The Interview Questions and Procedure

The questions for this qualitative interview are open-ended questions that have been validated by subject matter experts before being administered. As a result, the following validated and rectified interview questions were prepared and implemented:

1. What are your thoughts on the impact of covid-19 to your studies?
2. Do you believe that your university existing academic service is effective during the covid-19 pandemic outbreak?
3. How satisfied are you with the online studies that have been conducted during this COVID-19 pandemic outbreak?
4. How satisfied are you with level of academic performances in the online studies you have taken during this COVID-19 pandemic?
5. Would it be necessary to request a special rate (fees) for semesters spent online studying during the covid-19 pandemic outbreak? If yes, please explain. If not, why not?
6. What are your opinions and suggestions regarding on online studies during the covid-19 pandemic outbreak

The interview was conducted through the use of the internet. Ten Informants participated in the interviews, which were done in English.

IV. ANALYSIS AND PRESENTATION OF THE RESULTS

The interview data was obtained in a transcribed format of the Microsoft Teams Meeting. This is ideal and easier than the manual transcript. This has also brought a new changes to the qualitative research interview process. It is the influence of data analysis in qualitative research that results in the grouping of data into a small number of themes ranging from five to seven themes [25]. As a result, in order to conduct the analysis of this current study, it was necessary to arrange and prepare the acquired data for analysis, which included, sorting and organising the data into distinct themes.

1. Coding and Readability Check

Data coding, on the other hand, refers to the process of extracting and aggregating data in a new way, in order to build theories from the data [26]. Participants' ideas can be grouped together by using the coding process to extract the most important concepts from their responses to questions posed by the researchers. The data from the narrative text was organised into concepts and themes in this study. Following careful analysis, the summary of ideas and themes were organised into groupings, which are depicted in Table 1 below. An inter-rater readability assessment of the extracted themes was carried out with three experts in order to ensure that the primary ideas and conceptual themes accurately represented what the researchers were hoping to measure. From Table 1, (I stand for informant, and the sequence of 1, 2, ..., 10 are their representation).

Table 1. The summary of the extracted themes and code.

Themes	Coding (Verbatim Extraction)
Thoughts on the impact of covid-19 to studies	<ul style="list-style-type: none"> ✓...COVID-19 makes the study unreliable, with many loopholes ... [I1] ✓...there should be a complete suspension of studies, ... [I2] ✓...Lockdown demotivate my study, ... [I3] ✓..., students have difficulty to coupe, ... [I4] ✓..., not appropriate for studying during lockdown, ... [I5] ✓..., very difficult studying online, ... [I6] ✓..., COVID-19 does not affect my study, but it's not very smooth ... [I7] ✓..., my family is affected with COVID-19 and that affect my study, ... [I8] ✓..., the study went well, but with some Internet problems sometimes [I9] ✓Lockdown cause problem and time is always not enough [I10] <p style="text-align: center;">[I1 + I2 + ... + [I10]</p>
Effectiveness of university existing academic service	<ul style="list-style-type: none"> ✓...I accessed everything online, but delay in many request ... [I1] ✓...the student portal crashes most time, ... [I2] ✓...can't be able to get what I need on time, ... [I3] ✓..., sometimes, they only send video as a lecture, ... [I4] ✓..., many times during lecture, we have Internet problem ... [I5] ✓..., Internet speed during lectures make the study difficult ... [I6] ✓..., Synchronous lecture was not smooth due to the Internet problem... [I7] ✓..., WhatsApp contact was the best, other contact was not sufficient, ... [I8] ✓..., there are a lot of failure of Internet connection during online class [I9] ✓Not enough service provided [I10] <p style="text-align: center;">✓[I1 + I2 + ... + [I10]</p>
Satisfaction with the online studies	<ul style="list-style-type: none"> ✓...not satisfied ... [I1] ✓...not satisfied at all, ... [I2] ✓...not even ready for online study, ... [I3] ✓..., very difficult and not satisfied, ... [I4] ✓..., not satisfied especially during total lockdown, ... [I5] ✓..., not satisfied, ... [I6] ✓..., not totally satisfied ... [I7] ✓..., I am not satisfied with it, ... [I8] ✓..., not satisfied [I9] ✓..., not satisfied with the engagement [I10] <p style="text-align: center;">✓[I1 + I2 + ... + [I10]</p>

Themes	Coding (Verbatim Extraction)
Satisfaction with the online studies' academic performances	<ul style="list-style-type: none"> ✓... not good progress ... [I1] ✓... not satisfied, ... [I2] ✓... not satisfied, ... [I3] ✓..., I passed all my subjects, but not realistic... [I4] ✓..., not satisfied, ... [I5] ✓..., not satisfied, ... [I6] ✓..., I'm ok and satisfied ... [I7] ✓..., not satisfied ... [I8] ✓..., yes, I am satisfied [I9] ✓Not satisfied [I10] ✓[I1 + I2 + ... + [I10]
Special rate (fees) for semesters spent online studying	<ul style="list-style-type: none"> ✓ we were promised to get fee discount, but not yet ... [I1] ✓...there should be discount, but until now I did not get it... [I2] ✓... we should get discount because we pay on-campus, ... [I3] ✓..., I would like to get the discount ... [I4] ✓I need discount, we should get it... [I5] ✓..., discount is imprtant, ... [I6] ✓..., we did not pay online, so we should get discount ... [I7] ✓..., we need refund, I don't want online... [I8] ✓..., we need discount because we pay on campus [I9] ✓I agree there should be discount [I10] ✓[I1 + I2 + ... + [I10]
Opinions and suggestions regarding on online studies	<ul style="list-style-type: none"> ✓...I prefer on campus, but I don't want to waste time ... [I1] ✓...studies should be put on hold indefinitely, until fully return to campus ... [I2] ✓...time has been wasted, and online study has many problem, ... [I3] ✓..., accessibility is an issue for students, and no engagement with people... [I4] ✓..., during lockdown, it is not suitable to study, no interaction... [I5] ✓..., It is really challenging to learn online, because there is no engagement... [I6] ✓..., In my opinion, COVID-19 has no effect on my academic achievement, however it is really slow. ... [I7] ✓..., academic leave is important for those people who have family member affected COVID-19, ... [I8] ✓..., there are no interactions, and this become a serious issue [I9] ✓It is always an issue and time is never enough for online study [I10] ✓[I1 + I2 + ... + [I10]

V. INTERPRETATION OF THE RESULTS AND DISCUSSION

Although opinions on the influence of COVID-19 upon research have been divided, some believe that COVID-19 renders the study unreliable by introducing several loopholes, while others believe that studies should be suspended completely because the lockdown demotivates students from pursuing their studies. Besides that, pupils revealed that they have problems concentrating and that studying online during lockdown is not a viable option because it is really difficult to concentrate when online. In addition, some informants stated that COVID-19 does not have an impact on their research, but that it is not very smooth, while others stated that COVID-19 has an impact on their family and that this has an impact on their study. Furthermore, several report that their study went smoothly, albeit with some Internet troubles every now and again. Finally, the lockdown caused problems, and time is always in scarce for studies.

In terms of the effectiveness of the university's existing academic services in relation to online studies and COVID-19, informants report that they can access everything online, but that there are delays in many requests, that the student portal crashes most of the time, and that students do not receive what they need on time. Occasionally, university lecturers will only send videos as a lecture, and students will frequently experience Internet problems during the lecture as a result of the lecturer's failure to provide adequate Internet connectivity. Studies are made more difficult by the slow Internet connection during lectures. The student also stated that the synchronous lecture was not smooth due to an Internet connection problem, and that "WhatsApp" was the most effective communication tool, with the rest of the tools being inadequate. Furthermore, the students reveal that there are numerous failures in the Internet connection during online classes, and that the university does not provide enough services to make up for the loss of revenue.

According to the findings of this study, the majority of students are dissatisfied with their online studies during COVID-19, with the majority of students attributing their dissatisfaction to "readiness," that is, the fact that they are not fully prepared and ready for online study, as well as the uncertainty surrounding COVID-19. Another factor contributing to low levels of satisfaction is a lack of engagement and interactions.

In terms of student satisfaction with their academic performances during the online studies, the majority of students stated that their performances were poor, and the research students stated that they were unable to make significant progress with their research. Yet another aspect of this revealed that some students passed all of their subjects, but not in a realistic manner, leaving them feeling unsatisfied. While others achieve satisfactory results and are satisfied with them, they still believe that the learning path chosen was insufficient.

During COVID-19, it was revealed that students had been promised a fee discount for semesters spent online studying, but that the discount had not yet been implemented, and that other universities had not yet made their positions known. Furthermore, students demonstrate that a discount should be offered because they pay the on-campus fee and would like to be reimbursed for their expenses. In essence, all students would welcome the opportunity to receive a discount.

Finally, the informant's general opinions and suggestions regarding the online studies during COVID-19 indicated that they would have preferred to have them on-campus, but did not want to waste time waiting, because no one knows when COVID-19 will be fully concluded and on-campus studies will resume as usual. Many other students advocated for putting academics on hold indefinitely until they can make a complete return

to campus following COVID-19. Several other students have also stated that they feel their time has been wasted and that online learning has a number of issues. Additional studies demonstrate that online studies have accessibility issues for students and that there is no engagement with people; that during lockdown, it is not appropriate to study; there is no interaction; and that it is extremely difficult to learn online because there is no engagement. Some students believe that COVID-19 has no effect on their academic performance, but that it has a significant impact on their overall speed. Others suggested that students who have family members who have been affected by COVID-19 should be granted academic leave from school. The overwhelming majority of respondents believe that a lack of interactions is becoming a serious problem in online study during COVID-19. It is always a problem, and there is never enough time for online learning.

VI. CONCLUSION

The purpose of this study was to determine the effect of COVID-19 on university students' satisfaction with online education. While other issues have been linked to the COVID-19 pandemic, the study concluded that online education is unfeasible because to students' inability to focus. It also impacts a large number of families, which is why it was not found to be appropriated. Among the difficulties encountered throughout the online study was the fact that the student portal frequently crashed and was ineffective. Students commonly express their dissatisfaction with the lecturer's lack of internet access. Students assert that the university does not provide sufficient services to compensate for the financial loss. Apart from the issues around COVID-19, some students attribute their dissatisfaction to a lack of "readiness." The majority of online students were disappointed with their grades, and those enrolled in research made little progress. Not every student fared admirably in every class. While others are proud of their successes, some lament their education. The students, on the other hand, did not wish to wait until COVID-19 pandemic is over to return to on-campus studies. Others have expressed dissatisfaction with online learning and time wasted. Due to the lack of personal interaction, online learning are inaccessible to students. According to some students, COVID-19 has a negligible influence on grades but a significant effect on time. Academic leave should be offered for students whose families are impacted by the COVID-19. The lack of involvement in online classes was highlighted as a significant issue by the majority of respondents.

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