Continuing Education during COVID-19: Difficulties Faced By the Underprivileged University Students

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Abstract

The coronavirus disease (COVID-19) pushed conventional and blended modes of education online across the globe. This was challenging for Pakistani students to adapt to this unexpected and massive transformation. To analyze how underprivileged university students coped with online classes during the pandemic, phenomenological research was conducted. The participants for this study were approached by using purposive and snowball sampling, and online phenomenological interviews were organized with participants. The data collected from the sample was processed through the thematic analysis method. The findings of the study represented, underprivileged university students had a negative attitude towards online classes. The study further highlighted that learners did not have the mandatory technological resources and capabilities to take online classes. Besides, access to the internet and power cut was also problematic for students. To improve the online mode of education in the remote villages of the country, the government and universities should provide students with mandatory digital resources and competencies to take advantage of e-education.

Keywords: *underprivileged, COVID-19, technological resources, online education*

1. Introduction

The coronavirus disease (COVID-19) was recognized in Wuhan city of China in December 2019, and rapidly spread-out in all over the world. The World Health Organization (WHO) declared the outbreak a public health emergency of international concern in January 2020. To stop the transmission of coronavirus, the first lockdown was imposed on the centre of the epidemic Wuhan city on 23 January 2020. Later on, other countries of the world also imposed lockdowns to curtail the infection. Educational institutions around the world were profoundly affected due to the lockdown imposed in wake of the

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pandemic; about 120 states terminated conventional education and started operating online to minimize the academic loss of students (Shahzad et al., 2020).

The coronavirus situation was not different in Pakistan where the first two coronavirus cases were recorded in the last week of February 2020; and later on, the virus dispersed across the country by the mid of March 2020. Curtailing the spread of the pandemic, government of Pakistan imposed the first nationwide lockdown in March 2020. Similarly, the Ministry of Education also decided to enforce the first academic closure in March 2020 (Geven & Hasan, 2020). The Ministry further directed HEC (Higher Education Commission) and educational institutions to establish a mechanism to deliver instructions online.

The higher education commission is an autonomous body established in 2002 by the government of Pakistan. Since then, HEC has been regulating higher education across the country. During the pandemic, Ministry of Education directed the higher education commission and educational institutions to transform education from offline to online across the country. Following the instructions of the Ministry of Education, the higher education commission formulated policy guidelines regarding online education during the coronavirus epidemic. It was a series of guidelines regarding online education during an epidemic; the foremost publication was about the introduction of coronavirus dispersion, symptoms of disease, and preventive precautions. This was observed that universities did not have a proper mechanism for online classes and faculty members were also not trained to conduct online classes. Therefore, the higher education commission established a five members committee to assist universities in setting up a system for online instruction (HEC, 2020).

Despite HEC's policies and support in place, that was difficult for institutions of higher education to deliver virtual classes smoothly because of insufficient technical and human resources with them. During initial assessment and evaluation, most universities were found deprived of a learning management system or basic infrastructure prerequisite for online classes (Khan, 2020). The majority of public and private universities did not have a learning management system hence they used external platforms such as Zoom, Google-Meet, Google classroom and MS-team for online instructions amid the pandemic. This problem was not limited to the learning management system; in fact, students also encountered problems with internet access and a dearth of digital resources to actively participate in a virtual mode of learning (Adnan & Anwar, 2020).

1.1   Statement of the Problem

This study aimed to analyze the attitude of underprivileged university students (those students having fewer advantages, privileges, and opportunities than most students) toward online education and the difficulties faced by them to take online classes during the coronavirus pandemic. A few studies were found that highlighted the problems faced by underprivileged university students to take online classes from remote areas of the country during the coronavirus pandemic. Therefore, the findings of the study would fill the research gap, and inform the government and universities to overcome the problems faced by students to continue online education from remote villages.

1.2   Objectives of the Study

Objectives of this study included to:

1. To understand the attitude of the underprivileged university towards online classes.
2. Determine the digital skills of underprivileged university students.
3. Identify problems that underprivileged university students face to take online classes during the pandemic.

1.3   Research Questions

Following research questions were designed to achieve the objectives:

1. What was the attitude of underprivileged university students towards online classes during COVID-19?
2. How effective were the digital skills of underprivileged university students?
3. What were the major problems that underprivileged university students faced to continue online education during the pandemic?

2. Literature Review

This study is rooted in the technology acceptance model; this is an information system theory that represents how users come to accept and use new technology to achieve their objectives. The Technology Acceptance Model (TAM) suggests that there are two main factors which influence users to accept or reject new technology. These factors are 'perceived usefulness' and 'perceived ease of use. Apart from that, there may be some external factors which influence users to accept or reject the use of technology.

Figure 1
Technology Acceptance Model (Davis, 1989)
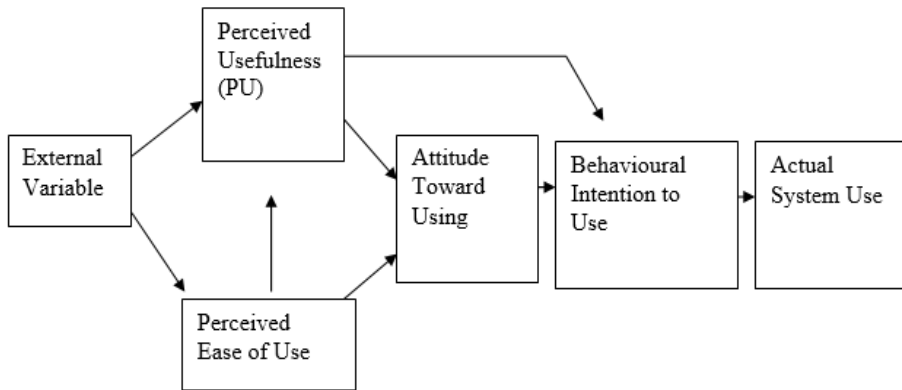
There are many factors which make online education successful or fruitless; and the attitude of students and teachers towards online classes is one of them (Cidral et al., 2018). In Pakistan, the digital mode of education was not accepted by the students as a substitution for conventional education amid the coronavirus pandemic (Mahajan, 2020). According to Mahfouz and Salam (2021), most higher education students like the traditional way of education rather than online classes because the conventional mode engages learners directly with mentors whereas in digital education this aspect is much weaker. During COVID-19 the majority of tertiary learners were reluctant to take online classes (Abbasi et al., 2020; Male et al., 2020). On the flip side, some studies have also shown the optimistic behaviour of university students towards online classes (Khan, 2021; Ismaili, 2021). The aforementioned studies have represented both optimistic and negative attitudes of learners toward online classes. This variation may be due to gender differences, socioeconomic status, rural-urban divide or availability of technological resources.

Advancement in technologies and globalization has made it unavoidable to digitize the educational system across the globe, particularly at the tertiary level (Hakan, 2020). Undoubtedly, the coronavirus epidemic surged the application of technological resources and the internet in higher education. Information Communication Technology (ICT) can be divided into two main categories i.e. technical infrastructure and human infrastructure (Duncan, 1995; Majeed, & Ayub, 2018). Both aspects are equally important to establish and use the technological system for online education.

Technical infrastructure means a system composed of physical networking, hardware, software and services that help the internet to operate and allowed information technology to flow (Schwager et al., 2000; Robertson & Sribar, 2002). The technical infrastructure is composed of tangible resources, intangible resources and access to the internet.

The dearth of digital devices and unreachable resources makes e-learning ineffective (Ractham & Chen, 2019). The ministry of education, institutions, faculty, and students encountered numerous complications in handling online classes because of poor technological infrastructure (Alhumaid et al., 2020). The problem of internet connectivity and destitute IT infrastructure exist across the country; however, such deficiencies were profound in the terrain areas of Pakistan (Khan, 2021; Baloch & Musyani, 2020). In addition, the majority of students did not have appropriate devices to participate in online education (Khan, 2020).

There are many online platforms such as Zoom, Google-meet, Google classroom, Microsoft Teams, LMS, WhatsApp messenger etc. (Jahangir, 2020) which can be used for online classes. However, a learning management system (LMS) is considered comprehensive and official for online education. In Pakistan, most public universities did not have a learning management system or basic technological mechanism to deliver online education (HEC, 2020).

According to Economist Intelligence Unit (2021), Sweden and USA are the two top nations in four categories of internet i.e. availability, affordability, relevance and readiness whereas Pakistan ranked 90th out of 120 countries, and lowermost in South Asia. In Pakistan, a large figure of people including learners does not have access to the internet (Khan, 2020). This deficiency created a problem for students taking online classes during the epidemic (Ahmed, 2020). Moreover, studies have established that problem of internet accessibility and affordability was more intense in distant villages. Consequently, during the coronavirus epidemic, the online education system could not operate properly in remote villages due to the non-availability of internet services (Zahra et al., 2020).

Human infrastructure refers to the knowledge and skills required to operate a system and manage IT resources (Robertson & Sribar, 2002). These skills help to access education, make individuals fit for future jobs, and make them capable of handling everyday life problems (The Word Bank, 2020). The developing world still encountering numerous challenges in adapting educational technology and the lack of skilled personnel is one of the barricades (Steyn et al., 2011; Voogt et al., 2015). This situation is not different in Pakistan; where faculty and students could not handle online classes properly because of lacking

digital skills (Rahim et al., 2020). While the digital competencies of students assist them to be good e-learners at the university level (Shehzadi et al., 2020). These skills are important to participate in online education but unfortunately, learners were not competent to take benefit from online education because of inadequate digital skills (Niehues-Jeuffroy & Rusnak 2020; Anwar et al., 2020; Ullah et al., 2021).

The study is embedded in the technology acceptance model formulated by Davis in 1989 which represents how users accept and practice technology. According to Davis (1989), there are two main factors which influence users to accept and use technology i.e. perceived usefulness and perceived ease of use. These two elements have an impact on attitude which regulates the behavioural intention of the user and lastly, behavioural intention inspires people to use technology. Apart from these two components, there are several external factors which may affect the perceived usefulness and perceived ease of use. The conceptual framework for this research represents the attitude of underprivileged university students towards online education during the coronavirus pandemic. In addition, Technological resources, IT infrastructure, digital skills, internet access, and availability of electricity have been taken as external influencers in this study.

Figure 2

Conceptual Frameworks, Adapted from Davis (1989)
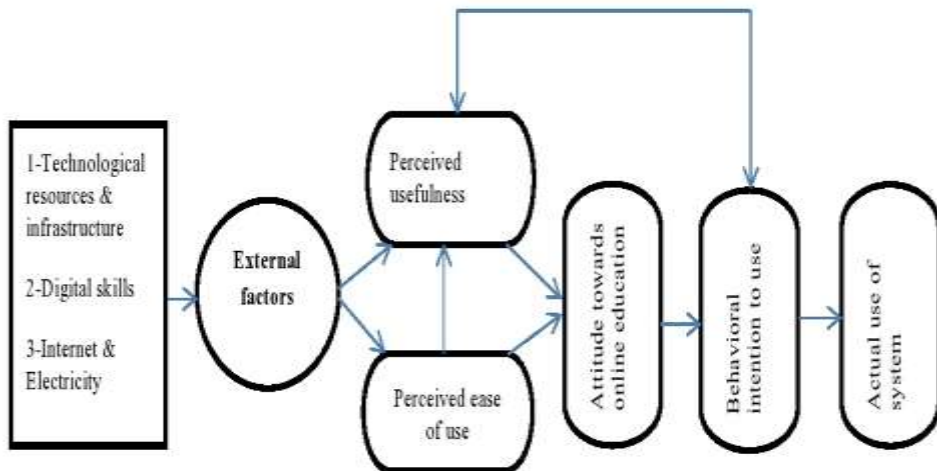
Note. Technological resources and infrastructure, the Internet and electricity, and digital skill are added to the original TAM as external factors.

3. Research Methodology

3.1   Research Design

This study applied a descriptive phenomenological approach to discover the attitude of underprivileged university students toward online education, and the difficulties faced by them to take online classes during COVID-19. A phenomenological design enquires about the lived experiences and perspectives of an individual (Flynn & Korcuska, 2018). The basic aim of this method is to describe the nature of the phenomenon (Creswell, 2013). The phenomenological approach was chosen to analyze the experience of students with online classes.

3.2   Sample and Sampling Techniques

The purposive and snowball sampling techniques were applied to reach research participants. These two sampling procedures are frequently used to formulate a sample for phenomenological studies (Welman & Kruger, 1999). In phenomenology, participants are selected based on judgment and the purpose of the investigation (Greig & Taylor, 1999). The sample was constituted of 16 participants including eight underprivileged university students and eight faculty members for triangulation from the rural areas. The sample size in a phenomenological study could be between 5 to 25 persons (Creswell, 1998). The research participants were chosen from remote villages of districts Sanghar, Dadu, Badin, Tharparkar, Nawabshah, Khairpur and Tando Allahyar in Sindh.

3.3   Instrument and Data Collection

An unstructured interview with the informants to the saturation point is a suitable way to collect data in a phenomenological study (Creswell, 1998; Finlay, 2013). Firstly, interviews were conducted with eight students out of ten as data reached the saturation point. Similarly, there was a sample of ten faculty members from different universities but data saturation was met at eight interviews hence further interviews were not conducted.

Figure 3

Data Analysis Process
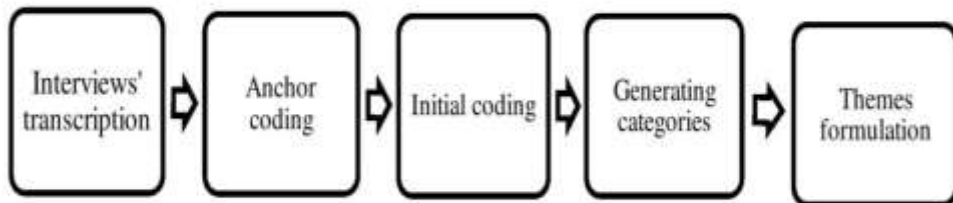
4. Data Analysis and Interpretation

Thematic analysis is an appropriate way for data processing in phenomenological studies where data is collected through interviews (Sundler et al., 2019). The coding process was carried out following Saldana (2013) where first anchor codes were generated for each research question and then the entire text was coded accordingly. After that, by following the focused coding categories were formulated; and finally, categories were transformed into themes. Going through an extensive data analysis process three themes were generated that are attitude toward online education; Internet and power cut issues; and limited digital skills and resources. The students respondents are denoted as SR1, SR2, SR3, SR4, SR5,SR6, SR7 and SR8 whereas teacher respondent are denoted as TR1, TR2, TR3, TR4, TR5, TR6, TR7, and TR8.

4.1   Attitude toward Online Education

The findings of the study have indicated that underprivileged students had a negative attitude towards online classes during the coronavirus pandemic. Students were unhappy with online classes because there was no interaction. Conversely, "Face-to-Face classes" were better; where student-student and student-teacher interaction was frequent" (SR1). It was difficult for learners to adapt to unexpected transformations as "they have been studying through face-to-face classes since childhood so experience with online classes was poor" (SR4).

For the triangulation, teachers were inquired about the attitude of their students regarding online classes; they were also of the view that students had a poor attitude towards online classes. According to TR1 "some of the students were non-serious to take part in online classes despite having digital gadgets, internet and electricity". It has been noticed that "Students from far-flung areas usually had a negative attitude toward online education" (TR2).

4.2   The Internet and Power Cut Issues

Poor internet facilities and power cuts have been creating problems during the coronavirus pandemic for students to continue online education. Those problems were more serious in the remote areas of the country. The Internet and power failure was one of the major problems for students to take online classes from remote villages amid the pandemic. "Sometimes, electricity is cut for 18 hours a day" (SR1) which caused difficulties for students to take online classes. "Access to the internet was challenging" (SR2); this issue exit across the country but is "worst in distant villages" (SR3). There were two major barricades for underprivileged students to attain online classes that were "the internet connectivity" (SR7); and "electricity cut" (SR8).

The interviews were also conducted with teachers to endorse the data obtained from students. According to TR1 "No doubt, there were some genuine

issues like electricity cut and slow internet in the countryside." this was observed that students' access to the "internet was the chief hurdle" (TR3) to participate in online classes. A good internet connection and availability of electricity is the utmost requirement for online classes. Unfortunately, "there is no proper internet network in the remote areas" (TR6) of the country.

4.3   Limited Digital Skills and Resources

This research study disclosed that students had financial constraints to purchase digital gadgets and internet packages for their online classes amid the epidemic. Moreover, students also did not have the appropriate digital skills to use technological resources. It was challenging for underprivileged university students to continue their online education from remote villages with limited technological resources and skills. It was difficult for "financially weak students to purchase expensive laptops or computers and internet packages" (SR1). Some students despite having laptop and internet packages were "unable to use them due to lack of requisite skills" (SR3). The students must have a proper computer/laptop to take online classes while during the pandemic most of the students from distant areas of Pakistan have taken their "online classes through mobile phone" (SR6).

For triangulation, interviews were conducted with the teacher about the digital skills and resources of their students. Teachers endorsed that those students who belong to remote villages had limited resources and digital skills regarding online classes. According to TR1, "90% of students of his classes did not have laptop/computer so they used a mobile phone for online classes". In addition, the majority of students were "unable to use digital resources due to insufficient digital skill" (TR8). Moreover, online classes were a quite new trend in Pakistan so "students were not aware of how to use technological resources efficiently" (TR6). The majority of underprivileged university students were not familiar to use LMS appropriately (TR4).

5. Discussion and Conclusion

This study disclosed that students had a negative attitude towards online classes during the coronavirus pandemic. The research conducted by Abbasi et al. (2020) in urban areas of Pakistan also indicated that students of higher education dislike online education. The attitude of students is one of the important factors for success in online classes (Sen, 2013). The positive or negative attitude can be the result of some external factors as in this study students seemed despondent because of insufficient requisite resources and skills to take online classes. Secondly, they did not study through an online mode of education ever before. Besides, the undesirable attitude of students was the result of an undeveloped setup for online learning.

In developing nations like Pakistan, there is no proper technological infrastructure to operate online education (Aung & Khaing, 2015). These factors are considered to correlate with the attitude of students (Ford & Alsup, 2017). During the COVID-19 students were deprived of the internet and digital gadgets (Adnan & Anwar, 2020; Ahmed, 2020). Most of the studies conducted on this subject have covered the urban parts of the country whereas this study was conducted in the remote areas of the country. Therefore, the outcomes of the investigation would fill the research gap and inform the government, policymakers, and universities about this out-of-sight problem to overcome it. In addition, this enquiry would also help out students to manage their attitude toward online education for better academic outcomes.

The outcomes of the enquiry disclosed that internet availability and unscheduled power went out were two of the central among several obstacles to continuing online education amid the pandemic. All students acknowledged that they experienced predicaments to learn online because of these two hindrances. In connection with internet facilities, Pakistan ranked 90th out of 120 countries and the lowermost in South Asia (Economist Intelligence Unit, 2021). Moreover, this situation is worse in the far-flung areas of the country (Khan, 2020). Undoubtedly, it was challenging for students to take online classes with fluctuating internet connectivity (Ahmed, 2020).

All research participants encountered an electricity breakdown problem. Some students had power that went out for 12 to 14 hours per day whereas one of the students told that there had been an electric cut for 20 to 22 hours per day in his village. Besides the internet, the unexpected electric cut was another challenge for students to continue their online education from remote areas. The masses of Pakistan have been facing the problem of power going out because of a shortfall of electricity. This undersupply of power hurts every sector including education (Lodhi & Malik, 2013). Certainly, unexpected power cuts were one of the problems that university students encountered to take online classes during the coronavirus epidemic (Zaidi & Salah, 2020). The students have been facing the problem of internet and electric outages for a long time across the country. However, such problems were more painful during the epidemic because students were unable to participate in online classes without the availability of the internet and electricity. The findings of this study would saturate the information gap and proclaim concerning authorities to embellish the situation to a satisfactory level.

This investigation also communicated that underprivileged university students did not have apposite technological resources and digital skills to carry on education online. Most of the students did not have the right devices such as a

computer or a laptop for their online studies and this was because of financial limitations. In the same way, the majority of students were incompetent to handle technological resources accurately because of insufficient required skills. Only one out of eight students had their laptop and the right capabilities to actively participate in online learning.

The outbreak of the coronavirus pandemic has abruptly transformed conventional and blended education into online. To comply with this transformation, students need to have new sets of skills and resources in the form of digital skills and resources. Digitals skills are the set of skills which enable an individual to use technological resources for learning, earning and entertainment (UNESCO, 2018). Developing nations are still encountering various challenges to integrating technology into education because of skilled personnel (Steyn et al., 2011; Voogt et al., 2015). In Pakistan, inadequate digital skills were problematic for students to continue their education online amid the epidemic (Anwar et al., 2020; Ullah et al., 2021). The cause of this deficiency of digital resources is associated with students' low socioeconomic status (Adnan & Anwar, 2020; Kapasia et al., 2020).

The results of this study proclaimed that underprivileged university students should be equipped with digital gadgets and skills in such a way that they can use technological resources effectively. Technology has already been used in higher education for the last few decades; the coronavirus pandemic further accelerated the demand for technology by pushing conventional and blended education online. Adapting to this unexpected and massive transformation was challenging for students across the globe. However, the situation was inferior in Pakistan where sufficient resources were not available to cope with online classes during the epidemic. Contemporary research exposed that underprivileged university students did not have an optimistic attitude towards online education. In addition, students were not equipped with the appropriate digital resources and skills mandatory to participate in online education. Besides, unscheduled electricity cuts and an improper environment for the study were also detrimental to online classes amid the pandemic. Some studies have already been conducted in the urban areas of the country about online education. However, this research has exposed the problems of unreached underprivileged university students in distant villages of different districts in Sindh. So the findings of this study will help out government, universities and concerned authorities for the betterment of online education in rural parts of the country.

6. Recommendations

1. The government of Pakistan with the collaboration of the Higher Education Commission and universities should provide internet facilities and mandatory digital gadgets to underprivileged university students.

2. To impart digital skills, free-of-cost online/offline courses should be introduced for the students so that they can professionally handle technological resources.

3. Underprivileged university students should be encouraged to actively participate in online learning to overcome the negative attitude towards online education.

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