



Satisfying and Dissatisfying Determinants of Online Education during Covid-19 Pandemic

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Abstract: This paper attempts to explore satisfying and dissatisfying determinants of online education in Pakistan. Participants were well abreast with the online mode of education due to the closure of physical classroom activities during the COVID-19 pandemic. Purposive sampling was research design. Students enrolled in communication skills course were drawn as study respondents. An open-ended questionnaire was a research instrument. Eighty (80) engineering students participated in this survey and provided feedback about satisfying and dissatisfying factors of online education in Pakistan. Data were analyzed using the content analysis approach. Results exhibited students were satisfied with 'class feasibility, low financial cost and communication opportunities. On the other front, they were dissatisfied with 'internet issue, loadshedding of electricity, technical issue, home disturbance, expensive internet packages, and lack of communication. This research concluded that online education is never free from issues and challenges in Pakistan.

Key Words: Satisfying, Dissatisfying, Determinants, Online Education, COVID-19 Pandemic

Introduction

COVID-19 pandemic has been studied by researchers with its connection to higher education ([Alamri et al., 2021](#); [Ojo & Lorenzini, 2021](#)). Due to the startling appearance of the deadly virus ([Baloch et al., 2021](#); [Rafiq et al., 2021](#)), universities started online education. This abrupt change in teaching and learning ([Talib et al., 2021](#); [Maphosa, 2021](#); [Onwuegbuzie et al., 2020](#)) put universities under pressure on how to face the situation. Universities faced numerous challenges i.e.,

shortage of funds and absence of a Learning Management System. Higher Education Commission of Pakistan released funds to public sector universities to begin online classes. Universities established Learning Management System and used digital platforms ([Bao, 2020](#); [Crawford et al., 2020](#)). Parents appreciated the timely initiative of universities. This study revolved around the axis of knowing satisfying and dissatisfying determinants of online education during the pandemic in Pakistan. An assignment project was provided to students to record detailed information

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about their good and bad experiences of online learning during the COVID-19 pandemic. This study produced very promising results that are useful to promote online learning in Pakistan.

Literature Survey

Corona cases appeared in Pakistan once people returned from Iran to perform spiritual ceremonies (Manzoor, 2020). The government of Pakistan banned air travel (Sarwar et al., 2020). Schools, colleges, universities, hotels, marriage halls, and public parks were sealed to the public. Social distancing, quarantine, and lockdowns were imposed (Khalid & Ali, 2020). People who felt symptoms of fever and cough were advised through electronic, print, and social media to take extra precautionary measures. They were suggested self-isolation (Rana et al., 2020). Online classes were planned using computers, laptops, the internet, and smartphones. Pakistan Television (PTV) played a key role in providing education and knowledge to students. Moreover, the Higher Education Commission of Pakistan guides universities to safeguard the well-being of students, teachers, and allied staff. Monetary fund organizations released funds to underdeveloped countries to fight this deadly disease. China, Britain, Russia, and America prepared the corona vaccine, but they reached in Pakistan late. The government of Pakistan established National Command Operation Center (NCOC) to monitor and control the spread of this disease. Funds were released to buy the corona vaccine from foreign countries. People were reluctant for vaccinating because false propaganda spread on social media channels i.e., Facebook, YouTube, and WhatsApp channel groups, about horrible effects of vaccination. News spread on these channels that vaccinated people will die in a year. Moreover, a perception was generated that corona vaccination limits the chances of childbirth. It is a program of world countries to overcome world population.

It is highlighted that polio vaccination started in Pakistan a few decades back, and propaganda was also spread that it is a birth control program of European and Western

countries. Different segments of society opposed this campaign resultantly; Pakistan is not a polio free country till today. The medical community responded to this false propaganda and rejected it on social media channels. The government of Pakistan announced stringent policies regarding corona vaccination. Employees were communicated that without producing CORONA vaccination cards, salaries shall not be disbursed to them. People without vaccination cards shall not be allowed to use public transport as well. National Database and Registration Authority (NADRA) was mandated the issuance of vaccination cards. Students were denied access to classes and university accommodation without vaccination cards. Universities arranged corona vaccination camps to facilitate students and staff. Online education has multiple benefits (Adnan et al., 2020), and it is easily accessible from rural areas of the country. Online education is cheaper in low transportation costs, accommodation, and institution learning expenditures (Shivangi & Dhawan, 2020).

Online Education in Global Perspective

Tony Jehi et al., (2022) studied the COVID-19 effect on students and found students majority suffered from anxiety, financial hardship, isolation, infection fear, future uncertainty, and poor sleeping as students' anxiety factors. Mustafa Kame et al., (2021) investigated challenges and factors influencing learning management system in Covid-19 pandemic. Outcomes revealed technical problems, economic issues, ICT literacy, quality content, and lecturers' behavior as challenging factors. Dastidar (2021) studied the effect of the online learning environment on students' satisfaction during the COVID-19 pandemic and found students were satisfied with online learning, collaboration, and interaction. Kari Almendingen et al., (2021) searched student's experiences with online teaching in COVID-19 lockdown and found lack of social interaction, poor home environment, insufficient data bandwidth, and low motivation as student concerns. Al-Marroof et al., (2021) studied factors affecting e-learning platforms afterward

COVID-19 and found a positive effect of vaccination fear among teachers and students. [Marwa Zalat et al., \(2021\)](#) studied experiences, challenges, and acceptance of e-learning during the COVID-19 pandemic and found poor internet connectivity, insufficient computer laboratories, lack of computers/ laptops, and technical problems as online learning challenges. Mohammad [Rajab et al., \(2020\)](#) researched challenges to online medical education in the COVID-19 Pandemic. Results demonstrated communication issues, student assessment, technology tools use, anxiety, stress, and time management as challenges. [Manaf Al-Okaily et al., \(2020\)](#) studied acceptance of e-learning system in the COVID-19 pandemic and found positive impact of e-learning on students. [Shivangi & Dhawan \(2020\)](#) explored the strength, weaknesses, opportunities and challenges of online learning in a pandemic and found time flexibility and place online learning advantages. Also, technical difficulties, disruptions, frustration, anxiety, confusion, and low confidence were found as disadvantages. [Baber \(2020\)](#) investigated students' learning satisfaction with online education and found classroom communication, course structure, student engagement, and teacher knowledge students satisfying factors. [Almaiah et al., \(2020\)](#) explored factors influencing the e-learning system during the COVID19 pandemic. Management issues, technical issues, financial issues, and self-efficacy problems impacted the online learning system. [Suraksha Subedi et al., \(2020\)](#) studied E-learning problems during the COVID-19 Pandemic and found electricity problem and internet problems affect students and teachers. [Dube \(2020\)](#) studied online learning during COVID-19 and found students faced poor internet and software problem as online learning. [Hart et al., \(2019\)](#) reviewed online learning and offline effects on students' performance and found positive results in both settings. [Salloum et al., \(2019\)](#) studied social media practices impact on e-learning systems in universities. Study results exposed students' satisfaction with online learning systems. Latifah & Thirumeni (2016) investigated students' views about online learning

management system and concluded students' satisfaction with the learning management system.

Online Education in Perspective of Pakistan

[Abdul et al., \(2020\)](#) explored social media role in collaborative learning. Researchers found a significant impact on students' academic performance. [Muhammad Adnan et al., \(2020\)](#) surveyed students about online learning during the pandemic and found e-learning is fail due to internet problems, technical and financial problems. [Sobia Iqbal et al., \(2021\)](#) gathered students' views about online classes during the COVID-19 pandemic and concluded online education is failing due to poor infrastructure, internet connection, laptops, android cellphones, electricity, teacher physical interaction, and classroom deliberations. [Farhana Tabassum et al., \(2022\)](#) examined students' problems in online education and found poor internet facility, load shedding, financial issues, ear pain, and unreliable results as problems. [Abaid Ullah et al., \(2021\)](#) explored students online learning challenges and found internet facilities, financial issues, internet issues, and eyesight problems. Farrukh [Ansar et al., \(2020\)](#) studied undergraduate students about online learning in universities of Pakistan. Results indicated students were dissatisfied with online learning owing to student-teacher communication, over assessment methods, and understanding of lectures properly. [Khattak Afraseyab et al., \(2021\)](#) studied the impact of online classes on students learning and teachers' responsibilities during COVID-19. Results reported teachers were anxious about online classes due to electrical problems and internet issues. Moreover, load shedding of electricity, poor internet signals, mobile data packages, lack of infrastructure, and internet connectivity emerged as problems also. [Qamar Tehreem et al., \(2021\)](#) studied the impact of COVID-19 on Higher Education and found poor interaction among students and teachers. [Nadia Rehman et al., \(2021\)](#) studied technology use and challenges confronting teachers for online

classes. Loadshedding of electricity, poor internet speed, poor attitude of parents and students, poor online forum, and overloaded classes emerged as barriers. Huma [Sarwar et al., \(2020\)](#) surveyed the effectiveness of e-learning classes during the COVID-19 pandemic. The study found students were dissatisfied with the institutional learning management system, learning resources quality and teachers' skills needed for online lectures. Fareeha [Farooq et al., \(2020\)](#) surveyed students and faculty challenges and found poor faculty training, institutional support, and poor internet and online assessments. [Anwar Muhammad et al. \(2020\)](#) examined barriers and challenges of online education and found technology problems, lack of training, low motivation, resource constraints, and poor computer literacy as barriers. [Sana Noor et al., \(2020\)](#) studied online classes' performance and found poor study environment, slow internet speed, load shedding, and poor online study material as problems. Rizwana [Shahid et al., \(2020\)](#) conducted a study on E-Learning amid the COVID-19 Pandemic and found online classes satisfactory, but internet connectivity issues emerged as problems. [Osama Habib et al., \(2021\)](#) studied students' online learning and found communication difficulties, internet connectivity problems, and health problems as online affecting factors. Saad [Arslan Iqbal et al., \(2022\)](#) explored students' views about online education and found lack of institutional support, online instruction quality, poor study environment, absence of electricity, and internet connectivity as online education issues. Babar Khawar et al., (2021) studied COVID-19 psychological impact on online classes and found 41% of students faced severe psychological distress, and 65% were unsatisfied with online classes. [Khadija Alhumaid et al., \(2020\)](#) studied COVID-19 & E-learning in developing countries and found participants were satisfied with online learning. [Adnan and Anwar \(2020\)](#) surveyed online learning amid the COVID-19 pandemic. Findings revealed online learning is not satisfactory due to technical and monetary problems. This research addressed following Research Questions:

Research Questions

- i. What are the satisfying determinants of online education during the COVID-19 Pandemic?
- ii. What are the unsatisfying determinants of online education during the COVID-19 Pandemic?

Methodology

The study explored engineering students' satisfaction and dissatisfaction with online education in Pakistan during COVID-19 pandemic days through qualitative methods. Eighty (80) engineering students enrolled in the Bachelor of Engineering degree program department of computer systems and software engineering were respondents. However, only twenty-seven students' responses were included because participants had shared assignments, and repetition of answers was found. Convenience sampling technique was implemented. Content Analysis was employed for data analysis purposes. The open-ended questionnaire was research instrument. The data collection source was class assignments. Data was transcribed typing on a Microsoft word document. Every word was typed to maintain transparency and reliability. Data were coded, and outcomes were drawn from the data.

Findings

Part I: Satisfying determinants of Online Education during the COVID-19 Pandemic

Findings of Research Question 1 are presented as under. Data detailed deprecation is placed at Appendix-A.

Class Feasibility

Online classes were feasible for students to attend from home places. In this mode of education students were never worried to run behind university buses to reach classes in time. The finding is in line with the literature review study i.e., [Shivangi & Dhawan \(2020\)](#).

Low Financial Cost

It surfaced that online class advantages include low financial cost. Parents were less burdened bearing uniform and traveling expenses. Therefore, online education is affordable compared to physical education. Online education is cheaper in terms of low transportation costs, accommodation, and institution-based learning ([Shivangi & Dhawan, 2020](#)).

Communication Opportunities

Online education offers better chances of communication with world universities. Students can easily communicate with world Professors to share information and knowledge. This result is in line with literature review studies ([Dastidar, 2021](#); [Baber, 2020](#)).

Part II: Unsatisfying Determinants of Online Education during COVID-19 Pandemic

Research Question 2 findings are presented as under. Data detailed description of is placed at Appendix-B.

Internet Problem

It emerged from data internet issue was common for online classes. The majority of students failed to join online classes due to network issues. Resultantly, a small number of students could attend classes and it was students' academic loss. This finding is in line with literature review studies i.e., (Mustafa Kame et al., 2021; [Marwa Zalat et al., 2021](#); [Suraksha Subedi et al., 2020](#); [Dube, 2020](#); [Muhammad Adnan et al., 2020](#); [Sobia Iqbal et al., 2021](#); [Farhana Tabassum et al., 2022](#); [Abaid Ullah et al., 2021](#); [Khattak Afraseyab et al., 2021](#); [Nadia Rehman et al., 2021](#); Fareeha Farooq et al., 2020; [Sana Noor et al., 2020](#); Rizwana [Shahid et al., 2020](#); [Osama Habib et al., 2021](#); Saad Arslan Iqbal et al., 2022).

Loadshedding of Electricity

Loadshedding of electricity was a threat to online classes. So, physical classes were

considered well compared to online. This finding is in line with literature review studies, i.e. ([Suraksha Subedi et al., 2020](#); [Sobia Iqbal et al., 2021](#); [Farhana Tabassum et al., 2022](#); [Khattak Afraseyab et al., 2021](#); [Nadia Rehman et al., 2021](#); [Sana Noor et al., 2020](#); Saad Arslan Iqbal et al., 2022).

Technical Issues

It emerged from data online education is never free from barriers in Pakistan, and the technical issue is one of them. This finding is in line with literature review studies, i.e., (Mustafa Kame et al., 2021; Shiv-angi & Dhawan, 2020; [Almaiah et al., 2020](#); [Anwar Muhammad et al., 2020](#); Adnan & Anwar, 2020).

Home Disturbance

Home disturbance emerged as dissatisfaction for online education in Pakistan. It affected the online learning of students. This finding is in line with literature review studies i.e., (Kari [Almendingen et al., 2021](#); [Sana Noor et al., 2020](#); Saad Arslan Iqbal et al., 2022).

Health Issues

Data revealed sitting in front of a computer screen for long hours affected students eyesight. This fear worried parents that online education is never good for children. This finding is in line with the literature review study i.e., ([Osama Habib et al., 2021](#)).

Expensive Internet Packages

Online education needs internet packages. It is beyond the purchasing power of poor students. COVID conditions made people jobless, so they were unable to buy laptops, computers, and smartphones. This finding is in line with literature review studies i.e., (Mustafa Kame et al., 2021; [Almaiah et al., 2020](#); [Muhammad Adnan et al., 2020](#); [Farhana Tabassum et al., 2022](#); [Abaid Ullah et al., 2021](#); [Khattak Afraseyab et al., 2021](#); [Adnan & Anwar, 2020](#)).

Lack of Communication

In physical classes mode, students learn from each other, and in online classes, little chances of interaction and communication between students and teachers prevail. This feeling generates a sense of isolation among students.

Discussion

Research Question 1 revealed students were comfortable with online classes because it provided them an avenue to attend classes from any place or station. Students were free to catch university buses to reach classes in time. It is possible if they do not reach classes in time, they can lose class attendance and it stops them appearing in semester examination. Hence, online classes proved best utilization of time for students. Moreover, online classes reduced the financial burden upon students' parents bearing boarding and lodging expenses for their children residing at campus. Moreover, online classes offered the advantage of communicating with world universities Professors for knowledge sharing and guidance. In the COVID pandemic, Professors of foreign countries supervised research students through online mode in order to save students' academic loss and to boost universities academics business. Research Question 2 outcomes revealed internet problem was a common problem for online classes in Pakistan. Because; students failed to join online classes due to poor internet network. Moreover, loadshedding of electricity emerged as a major problem for online education. It is noteworthy to mention that Pakistan faces an energy crisis over the years. Technical issue also posed a threat to online education. Students were never well abreast with computer and software use for online class purpose. Home disturbance is an interesting finding of this research. Pakistan is an

overpopulated country and all students do not enjoy spacious homes. Students needed spacious place for online learning, but various noises disturbed online learning of students. Online education affected human health as well. For example, appearing in front of a computer screen for longer hours affected students eyesight. Parents always remained worried about the wellbeing of their children. Student parents lost jobs due to coronavirus, and it increased their miseries to bear internet package expenses. Thus, online education was beyond the reach of low socio-economic students. The last dissatisfying factor was lack of teacher-student communication which isolated students and impacted their effective learning during pandemic.

Conclusion

Research evidences that students had diverse perceptions about satisfaction and dissatisfaction of online education in Pakistan. Mixed reactions were found towards satisfaction and dissatisfaction. Factors like internet issue, loadshedding of electricity, technical issues, home disturbance, health issues, exorbitant internet packages and lack of communication between student-teacher acted as online education barriers in Pakistan. Academic institutions should redress these issues to promote online education in Pakistan. The world is going to be digital day by day and Pakistan should move ahead with that pace. Universities should establish effective Learning Management Systems (LMS) to impart quality education to its students. Online education has become a popular mode of communication in this modern age of computer technology therefore; universities should embrace it in true letter and spirit to benefit students at large.

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Appendix-A

Table 1. Satisfying Determinants of Online Education in Pakistan

Student Code	Verbatim
CSE 2	"One of the biggest and imperative benefits of online education in Pakistan is that it allows students to cover their studies just by sitting at home... it saves them from educational institution classes and arranging time table. They do not need to catch the bus early in the morning and do not need to run for class attendance".
CSE 4	"The satisfying element of online education is that it permits students to attend classes from any location...access the training material at any time...".
CSE 3	In digital classes, parents are free to buy uniforms or spend travelling expenses and save money".
CSE 5	"The advantage of online education is reduced financial costs. Online education is far more affordable as compared to physical learning... online education allows students to attend classes from any location of their choice".
CSE 7	"...satisfying of online education is to permit students from any location. additionally, online lectures can be recorded...and referred for future reference".
CSE 8	"Through online education students get chance of getting closer with different educational system of whole world. They can interact with students and professors of different universities through accessibility...".
CSE 9	"Online learning offers teachers an efficient way to deliver lessons to students. Online learning has a number of tools such as Videos, PDFs, Podcasts, and teachers can use all these tools as part of their lesson plans... another advantage of online education is that it allows students to attend classes from any location of their choice and online education has advantage of saved lectures and notes...".
CSE 17	"Well, I am quite agreeing with online classes in Pakistan because what I perceive that through online classes, we can save lots of things especially we can save our most precious time...".
CSE 19	"Online education is the support of poor students those who can't pay fees for higher education".
CSE 21	"One of biggest benefits of online education is that it allows the student to take their classes just sitting at home with laptop and a proper internet connection... it saves commute expenses. It also saves the cost of additional tuition as...all learning material under one roof, i.e., post paper, books notes, test. It allows student to set their own schedule. They can access learning platforms at any time...this way they get to keep up with their other responsibilities without affecting their study and exam preparation. E-learning platforms engage professionals who have specialized in concerned subject to design the learning material. Students find it hard to access authentic study material. Online education platforms can help them in this regard...".
CSE 25	"The best part of online learning is it is much more affordable compared to old fashioned learning in digital class, parents are free to buy uniforms or spend travelling expenses and can save extra money with digital classes".
CSE 39	"Online learning has a number of tools such as video, pdf, podcasts, and teacher can use all these tools as part of their lesson plan behind textbooks to include online resources teachers are able to become more efficient educators. Another advantage of online education is that it allows students to attend classes from any location of their choice and online education has the advantage of saved lectures and notes. Thus, online education offers students accessibility of time and place".
SW11	"The advantage of online education is that it allows students to attend classes from any location... since online classes can be taken from home... thus; there are low chances of missing lessons. Another advantage of online learning is low financial costs...".

Appendix-B

Table 2. Dissatisfying Determinants of Online Education in Pakistan

Student Code	Verbatim
CSE 10	"Online education system in Pakistan means...problem. During online classes internet issue is very common...lack of internet means no classes. Online classes mean a waste of time. Loadshedding is common in Pakistan. During Loadshedding internet cannot work properly so please teaching physically".
CSE 6	"Barriers are present in online education system of Pakistan such as internet issue, technical issues, home disturbance are the major reasons towards dissatisfaction of online education in Pakistan".
CSE 7	"Many parents are worried about their children's health as it is unhealthy to sit for hours in front of a computer screen, looking at the screen for too long can also change their eyesight".
CSE 8	"It is expensive for economically weak student parents who are jobless due to COVID cannot afford smartphone or computers".
CSE 9	"For online education there is need of internet packages, if parents could not afford those expenses, they do nothing and children are discouraged".
CSE 10	"The key challenge for online classes is internet connectivity issue".
CSE 11	"I am somehow dissatisfied with online education in Pakistan because in online education... many issues arise due to bad network or poor people or middle-class can't afford the expenses of laptops or internet bills for their children so they can't be able to get knowledge and they become backward that's why I am dissatisfied with online education in Pakistan".
CSE 12	"Online learning requires teachers to have a basic understanding of using digital forms of learning... with online learning, there is also a greater challenge for students to be easily distracted by other social media sites. Another key challenge of online classes is internet connectivity".
CSE 13	"But in online education students can't gain skills those who understand physical education. Because some poor students can't afford laptop or mobile or any other online source".
CSE 14	"In online education Professors offer only offer the brief and comprehensive answer that might allow the students misunderstanding for any question".
CSE 19	"...one of the biggest challenges of online learning is the struggle with focusing on the screen for a long period of time. There is also a greater challenge for students to be easily distracted by social media sites. Therefore, it is imperative for teachers to keep their online classes crisp, engaging, and interactive to help students stay focused on the lesson. Another key challenge of online classes is internet connectivity...".
CSE 24	"...there are some bad experiences which I had personally felt during online classes, one of the biggest challenges was to focus on the screen for the long period of time because visual learning gives you somehow motivation, teachers expression of face and body language gives you the most wonderful experience for learning and also the other reason was that there were also great chance of distraction by social media and other sites. During online classes due to network issue most of the students were unable to join the classes as a result a smaller number of students were able to attend classes. Also, it was most difficult for a teacher to keep his students engaged and focused throughout the lecture. The conclusion is that it was just need for a necessary part".
CSE 25	"Without having proper care for students while online classes by teachers they can easily lose focus on studies. Many parents were worried about their children's health as it was unhealthy to sit for hours in front of a computer screen. Looking at a screen for too long can also affect their eye sight. It is expensive for economically weak students whose parents are jobless due to COVID and cannot afford smartphones or computers".
SW11	"For many students, one of the biggest challenges of online learning is the struggle with focusing on the screen for long periods of time. With online learning, there is also a greater chance of students to be easily distracted by social media and other sites. Another key challenge of online classes is internet connectivity".
SW14	"...the biggest challenges of online learning are the struggle focusing on screen for long periods of time...there is also greater chance for students to be distracted by social media or other sites. Another key challenge of online classes is internet connectivity...without a consistent internet connection for students or teachers, there can be a lack of continuity in

	<i>learning for the child. Students can learn from the peer company. However, in an online class, there are minimal physical interactions between students and teachers. This often results in a sense of isolation for students. Many parents are concerned about the health of their children because they spend many hours staring at screen...".</i>
SW17	<i>"The government has good reason to push more e-learning, but internet accessibility is too low in the country. There are very few institutions that have the option of recording the online sessions".</i>