

Impact of Online Education System on Students Satisfaction at Pakistan Higher Education Institutions during COVID-19

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Abstract

In Pakistan, the situation of the education system has changed during the month of March, when govt. of Pakistan has closed the education institution throughout the country due to increased cases of COVID-19. This situation has forced the universities to change the traditional learning system and implement an online learning education system to complete the on-going spring-20 semester. The aim of this research is to discuss the impact of the online learning education system on students' satisfaction in the higher education institutions of Pakistan during the pandemic. To achieve the objective of the study the data is collected from 391 participants attending online classes through questionnaires from the higher education institutions of Pakistan. The result of this study shows that students satisfied with the online education system and also highlighted some issues such as availability of internet access, and many others. The findings of this research help educationists, practitioners, professionals, and policymakers formulate the policies on the online learning system in higher education institutions during the pandemic situation.

Keywords: COVID-19; students' satisfaction; higher education institutions; Online Learning System; Lockdown.

1. Introduction

A novel Coronavirus is an outbreak from Wuhan city of china in late December 2019, which spread worldwide including Pakistan in February 2020. When the number of cases is increasing the country has faced lockdown after a three-week since its first case reported on taftan border with Iran. To protect the students from the pandemic, the Government of Pakistan has closed all the educational institutions across the country on 13th March 2020 (Ali, 2020). The government of Pakistan has issued orders to the Higher Education Commission to direct higher education institutions to start their online/distance learning modes, reschedule the on-going exams and assistance to their student's regularly in online classes till pandemic condition (Ali, 2020). The closure of educational institutions affect the educational activities, students have faced many issues such as cancellation of classes and delay in the schedule of the examination which make theme disappointed in these circumstances (Almanthari, Maulina, & Bruce, 2020).

Many schools, colleges and universities have shifted temporarily laid off in their educational activities. In private sector educational institutions, teachers face a lot of problems like job loss, salary cuts, internet connectivity issues for online classes, less technical logical equipped, postponed or reduced employee bonuses and increments. The main root causes of this problem, low fee collection which may create problems to run and manage the institutions. In this situation, many institutions downsize their workforce to manage their budgets. This pandemic has effects on schools, colleges, and universities at the global level to shut down their campuses for face to face classes, so students should follow social distance measures to control over Covid-19 (Toquero, 2020). However, the virtual learning system may run smoothly needs proper training because it is not possible overnight.

An educational institution across the global is used available technical resources to transform the best online learning material handed over to students in all fields (KAUR, 2020). In this current situation, the impact of coronavirus on the education sector will increase, may face delay in the education process lead to slow growth to their maturity in the future especially if need to understand the policy of education. In this study, we discuss the impact of online education system on student satisfaction during this pandemic on the education sector of Pakistan and also highlight the problems faced by students during online learning systems related to the internet such as access to the internet at costly rates, effective use of the internet, and many other problems.

A very little recent literature has explored the challenges and opportunities linked with e-learning under this pandemic COVID-19. Researchers are trying to explore the recent online learning course/studies benefits & challenges and its impact on student satisfaction. This research is revolving around examining the impact of online education policy, challenges, associated with higher education institutions that need to be investigating on student's satisfaction (Almanthari et al., 2020). Therefore, this study highlights the impact of the online learning system to know the challenges and hurdles faced by the students under this pandemic COVID-19.

This research study is a frontline role towards depth exploration of the COVID-19 disaster, which is an unpredictable impact on people across the country. It is a serious need to know the cause in economics, governance model, human interaction, and education sector, and design framework on how to successfully deal with this disaster situation. This study can be helpful for policymakers and education researchers in devising prompt strategies for the multidimensional impacts of COVID-19 on Pakistan education institutions. The objective of this research is a deeper insight analysis during the COVID-19 phase to know the impact of the online learning system at higher education institutions on student satisfaction.

2. Literature Review

Coronaviruses are a group of related viruses that cause diseases in mammals and birds. Coronaviruses cause respiratory tract infections that can be mild, such as some cases of the common cold, and others that can be

lethal, such as SARS, MERS, and COVID-19 in humans (Hageman, 2020; Li et al., 2020; Velavan & Meyer, 2020). The government of Pakistan has closed the educational institutions to protect the students from this COVID-19. Currently, very limited literature is available on the impact of the Covid-19 situation on the education sector (Chinazzi et al., 2020). COVID-19 is not only impacted the education sector, also the rate of its impact rapidly spreading every sector of human life. Scientists are trying to find out a medical solution to control this panic situation with vaccines. This epidemic has shut down every sector of society including the education sector and other sector face a lot of restriction and following measures across the border (Kraemer et al., 2020).

The education sector is a key point of social interactions and activities, if university personnel working is suspended, many students miss the on campus activities that are necessary for them. This kind of academic institution suspension leads to instability may inflict psychological distress and depression among students (McCarthy, 2020). Information and communication technology is important for higher education, but a limited budget for education in Pakistan. There are no special funds are allocated for the latest technology initiatives in the institutions. This pandemic has pushed educational institutes towards an online learning system when no one was ready for this transition.

In this pandemic situation closure of educational institutions in Pakistan has to use e-learning and management systems to conduct online classes. Online education courses have provided by hundreds of institutions at the national or international level, but there are two kinds of issues are attached, first very little established setup regarding the effects and effectiveness of online education (McPherson & Bacow, 2015), second is the digital system varies on a worldwide range that every institution has a set of priorities (Liguori & Winkler, 2020). A digital learning world is partially missing real sharing ideas, information, and knowledge (Britt, 2006). Most of the educational institutions in Pakistan, follow the teaching methodology as well as administrative activities at a manual level (Salam, Jianqiu, Pathan, & Lei, 2017).

An online learning system is an environment there is the liberty of time and space, unlike a traditional learning system. Online learning system provides flexible and substitutes systems to those who are unable to attend the traditional classes. Online learning system with the advancement of technology has secured a better place in the academic institutions (Baber, 2020). Researchers and many others are very keen to know which learning system is better than others. To know the answer to this question it is important to measure the students' satisfaction. In the literature, many studies have been conducted to know the relation which one is better online learning or traditional learning system. In an online learning system, students perform very well to acquire more knowledge online and their course completion rate, level of motivation, and satisfaction is increasing (Bernard, Borokhovski, Schmid, Tamim, & Abrami, 2014). Many others have also concluded that online learning provides a better result than traditional learning system (Lockman & Schirmer, 2020; Ryan, Kaufman, Greenhouse, She, & Shi, 2016). On the other hand, traditional learning is

more successful such as face to face interaction with the tutor, student attendance, satisfaction and motivation than online learning system(Adams, Randall, & Traustadóttir, 2015).

This current pandemic situation has raised many questions, such as education institutions have enough resources available to shift on campus classes to online classes is any plan available to address difficulties and challenges faced by students as well as instructors, and most important is education institutions provide internet at low cost to students and instructors in both rural and urban areas. The lack of access to fast speed and costly internet connection barriers for students, especially living in rural areas (Wains & Mahmood, 2008). To address these issues, the aim of this study to examine the impact of online learning system on student satisfaction. in this study we highlight these problems faced by students during online learning system such as access to the internet at costly rates, effectively use of the internet, online interactions with instructors, challenges, and many other problems.

3. Research Methodology

The quest to achieve the purpose of this research data is collected through an online questionnaire technique from students currently attending online classes during pandemic at universities of Pakistan. The detail of universities is provided in Table 1. In this study, the questionnaire is adopted by (Bernard*, Brauer, Abrami, & Surkes, 2004) to assess the effectiveness of the online learning system. The sample included 391 education students: such as 166 male students and 225 female students. The participants included Intermediate (N=32, 8.2%), Bachelor (N=321, 82.1%), MPhil/MS (N=32, 8.2%) and PhD (N=6, 1.5%) students respectively. The detail of the results is shown in table 2, that shows that students (N=203, 51.9%) belong to rural areas and (N=188, 48.1%) belong to an urban area. Internet connection are used by participants to attend online classes such as (N=184, 47.1%) Mobile data, (N=206, 52.6%) Wifi/DSL and (N=1, 0.3%) used both. Software applications are used by participants to attend online classes such as Google Meet (N=31, 7.9%), Microsoft Team (N=43, 11%), Zoom Application (N=267, 67%), Whatsapp (N=7, 1.8%), and other applications (N=48, 12.3%).

Table 1

Institutes of Respondents

Name of Institute	No. of Respondent
Allama Iqbal Open University	6
Alnoor International Institute of Islamic Education and Research	3
Army public School & College	1
Comsats University Islamabad	1
Government College University Faisalabad	31
Islam Medical College Sialkot	16
Kaharian Girls Cadet College kallar kahar	1

Murray College Sialkot	1
Punjab Group of Colleges	42
Qaud e Azam University Islamabad	7
Superior College	4
University of Central Punjab	3
University of the Punjab	3
University of Gujrat	74
University of Sialkot	195
The University of Lahore	3

Table 2

Frequency distribution

Attributes	Categories	Frequency	Percentage
Gender	Male	166	42.5
	Female	225	57.5
Education level	Intermediate	32	8.2
	Bachelors	321	82.1
	Mphil/MS	32	8.2
	Phd	6	1.5
Internet Connection	Mobile Data Co	184	47.1
	Wifi/Dsl	206	52.6
	Both	1	0.3
Residence	Rural	203	51.9
	Urban	188	48.1
Software Application	Google Meet	31	7.9
	Microsoft team app	43	11
	Zoom	262	67
	whatsapp	7	1.8
	Others	48	12.3

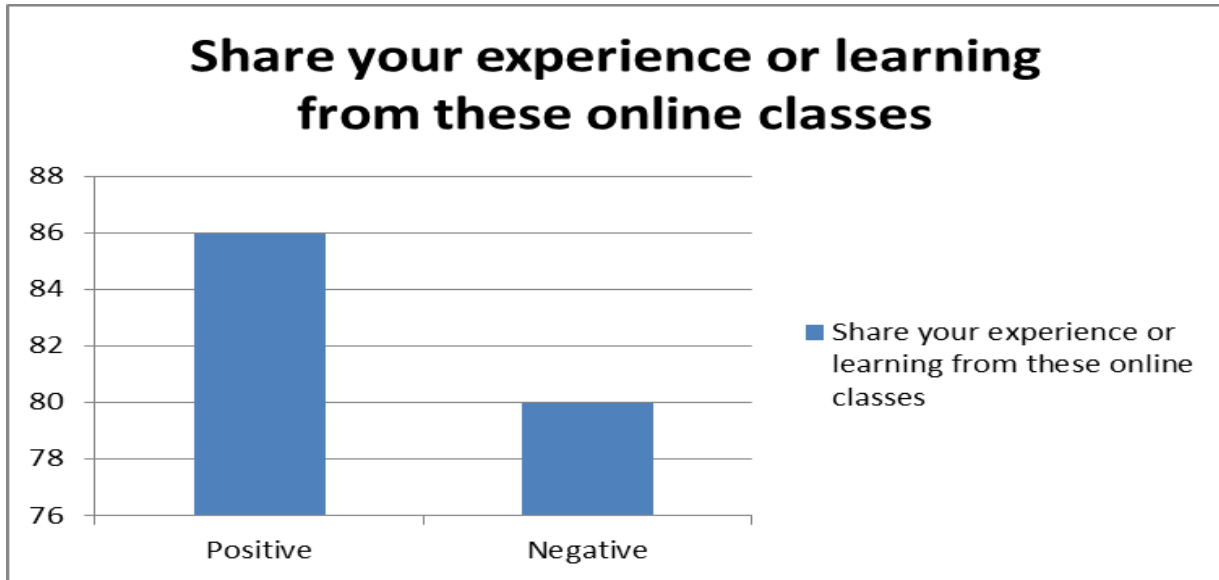


Fig.1. Male Students on experience on learning from online classes

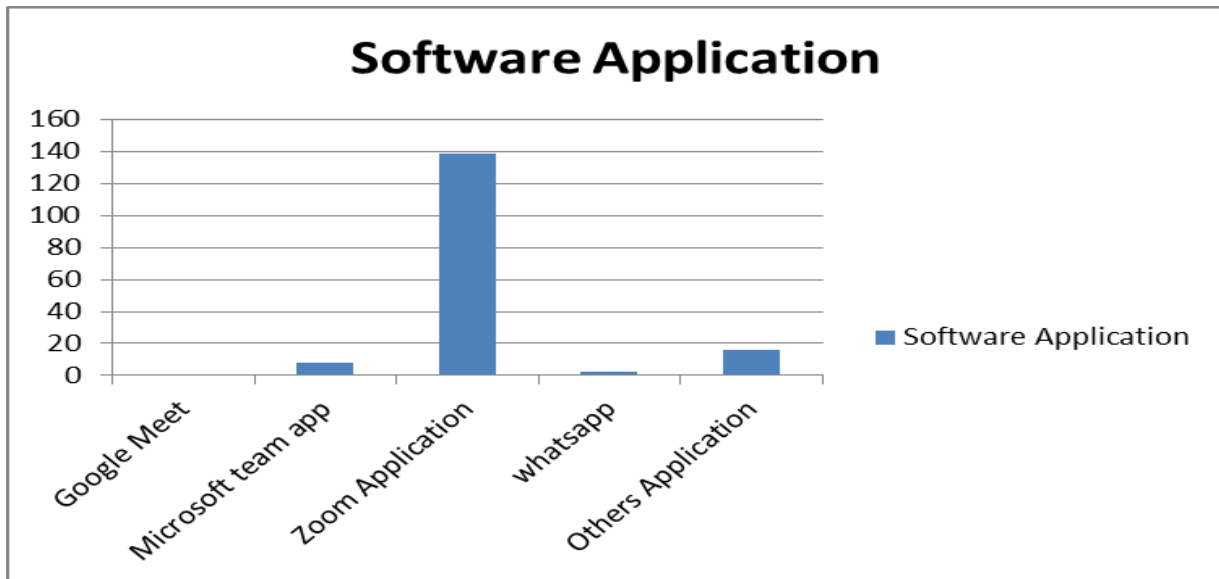


Fig.2. Male Students, selection of application for online classes

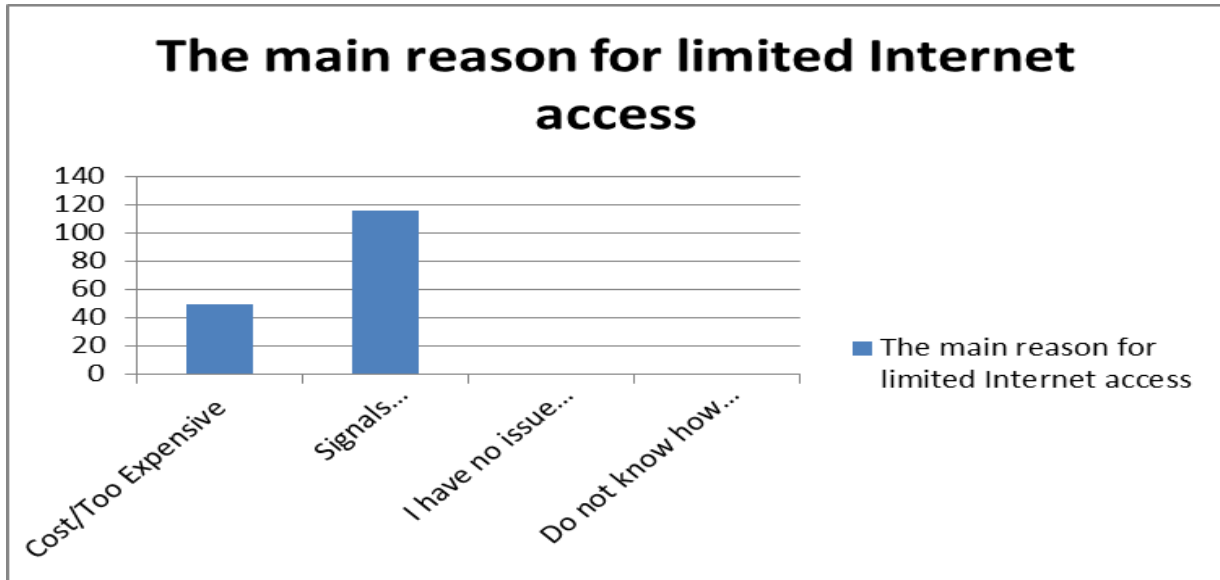


Fig.3. Male Students, Internet access issues

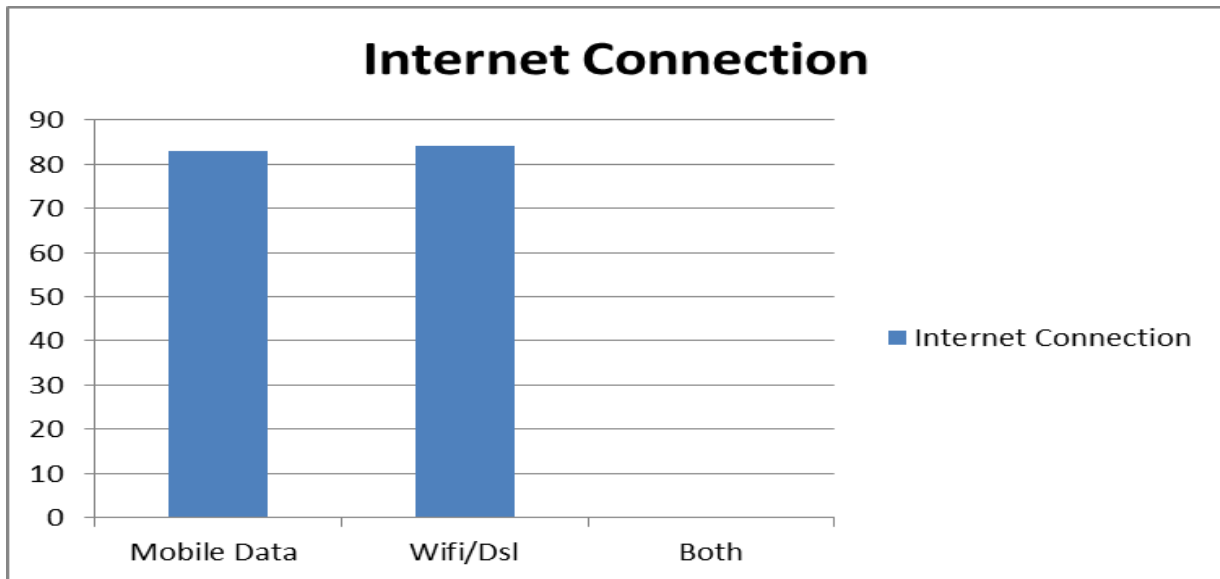


Fig.4 Male Students, Internet Connection

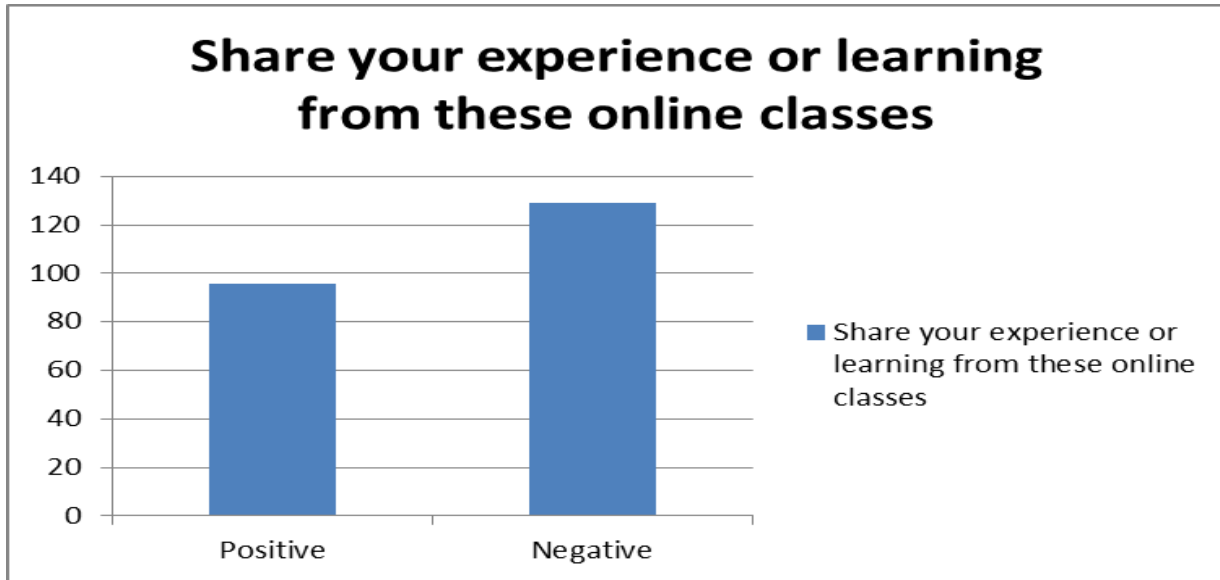


Fig.5. Female Students on experience on learning from online classes

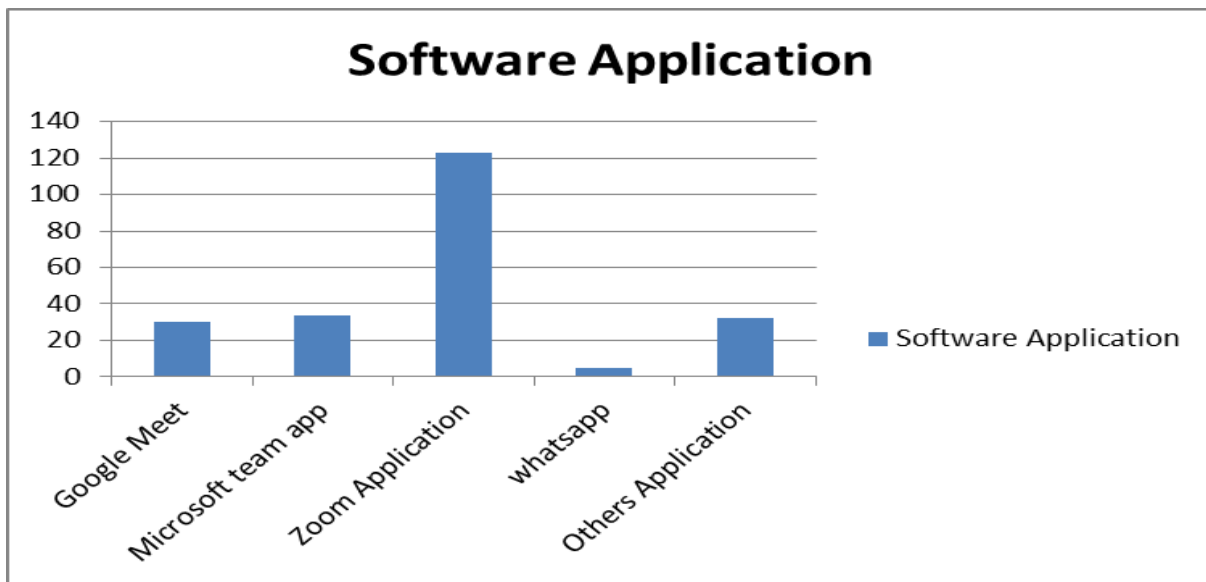


Fig.6. Female Students, Internet access issues

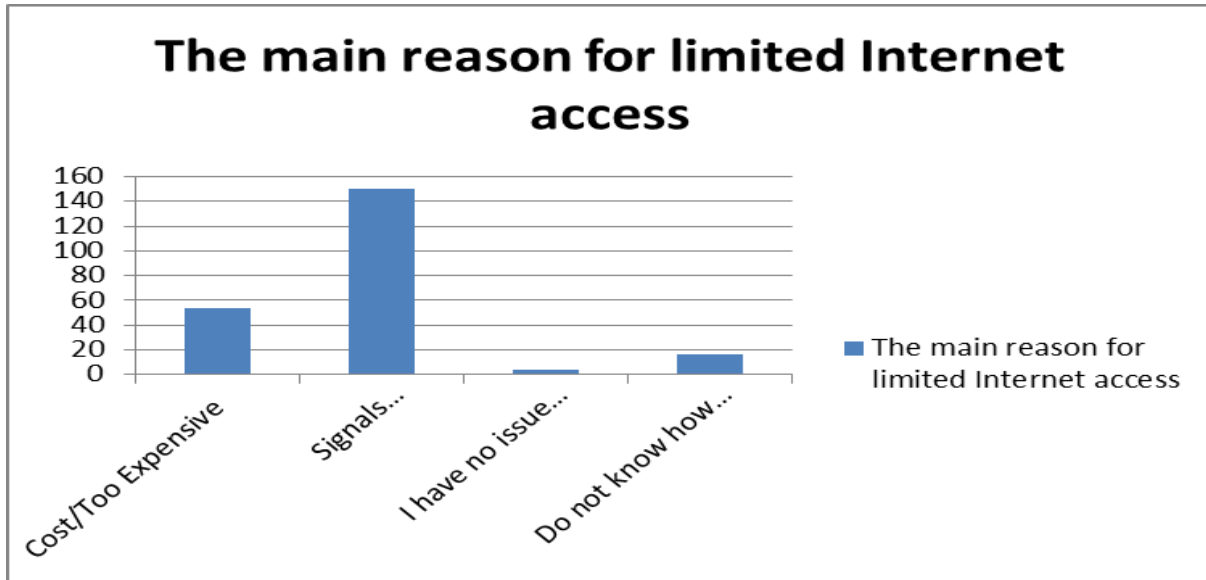


Fig.7. Female Students, Internet Connection

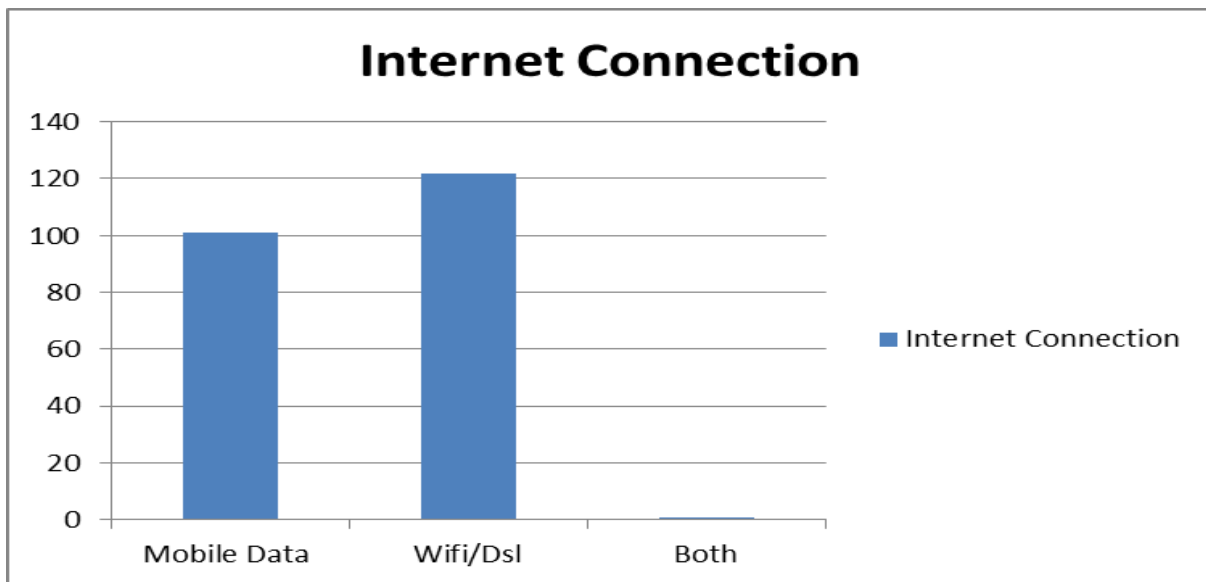


Fig.8. Female Students, selection of application for online classes

Figure 1 to figure 4 describes the result of the different question which we asked from male students such as 1) Share your experience or learning from these online classes 2) Software Application 3) The main reason for limited Internet access 4) Internet Connection. From figure 5 to figure 8 describes the result of the different question which we asked from female students such as 1) Share your experience or learning

from these online classes 2) Software Application 3) The main reason for limited Internet access 4) Internet Connection.

Table 3

Dependent Variable: Student Satisfaction			
Independent Variable	Coefficients	R-Square	F-test
Online Learning System	0.639***	0.41	268.72***

Note: P-values are significance at ***1%, **5%, and *10% respectively.

4. Result Discussion & Conclusion:

Table 3 shows the regression analysis results that describe positive and significant result between online learning system and student satisfaction. This finding supports the literature that the online learning system enhances student satisfaction and motivation, even some researchers concluded that online learning is provides a very friendly environment(Jeong & González-Gómez, 2016).

Students satisfaction and motivation is the main part to a successful learning outcome in both online and offline education systems. The student is not ready to adopt this transition, it is important the higher education commission of Pakistan has to build a proper framework according to the major challenges like a pandemic that motivate students, teachers, and other staff to adopt online learning system and to prepare strategies to implement online learning system in the education sector. To apply the effective online learning system at education institutions, interact with all stakeholders, and provide proper training to all stakeholders. There are many issues such as no such kind of fast and affordable internet access and the poor quality connection is another challenge for online learning in rural as well as some urban areas at educational institutions. In these areas, the majority of students have faced hinders (Wains & Mahmood, 2008). To implement an effective online learning system, first to develop a proper framework which helps to understand the challenges and problems in the online learning system, second to look after the student's problems during online classes such as internet issue, interaction with instructors, and mainly focus on training both students and instructors to produce better results.

5. Recommendation for future studies:

Pakistan should work to digitize its education system with the effective accessibility of the internet throughout the country. Pakistan transferred its higher education setup online but still exposed loopholes in its policy. Teachers are not well equipped and trained for online course classes, content design, and software apps to operate. A lack of IT infrastructure, which is the main hurdle this effective online teaching, student assessment, and internet connectivity significant challenges for students as well as faculty members (Rehman, Ahmad, & Ashraf). It is a good time for the ministry of education along with

other stakeholders to formulate strong strategies for the education sector. In the future, Pakistan should modernize its education system and low-cost accessible technology, including the internet in the most far off place in the country.

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