Online Learning System in Bangladesh: Perceptual Views of the University Students

Hasan Ahmed[1]
Morium Akter[2]
Mohammad Abul Kashem[3]

Abstract

This study aims to explore students' perceptions of the online education system in newly emerging private universities in Bangladesh. It focuses on and justifies perceptions with respect to gender, academic discipline, and devices used for online classes utilizing correlation analysis, one-way ANOVA, and chi-square test. From a perceptual overview of a sample of 315 students, 49.8% of respondents prefer the face-to-face format. More specifically, students' perceptions varied by academic discipline and devices used for online learning, but not by gender according to the result. Thus, it has been inferred that the world of education has already been challenged with blended learning as a new paradigm of change that is supposed to be the ultimate solution for the future disruptions of university education systems. The study has duly found out advantages of online learning, such as effective motivation for learning, conducive teaching environment, diversity in teaching style, the flexibility of time and content availability, better academic performance, and disadvantages such as network problems, lack of interaction in practical courses, less acceptability, lack of technical support and lack of understanding lectures smoothly etc.

Keywords: *Online Learning System, Perceptual Views, University Students, Teaching Method*

1. Introduction

The COVID-19 pandemic has disrupted every aspect of life, and even led to widespread school and college closures across the globe (Tadesse and Muluye, 2020). Most of the countries minimize the effect of spreading the pandemic by taking some steps like restricting mass gatherings, limiting public events, restricting cross-border transfer on local and international transport, testing and

[1] Assistant Professor, Dept. of Management, Feni University, e-mail: hasan_0162@yahoo.com
[2] Assistant Professor, Dept. of Accounting, Feni University, e-mail: morium1989@gmail.com
[3] Associate Professor, Dept. of Marketing and Dean (In-Charge), Faculty of Business Administration, Feni University, e-mail: kashem@feniuniversity.ac.bd

contact identifying, as well as stopping jobs and closing educational institutions (Aristovnik et al., 2020). Due to the advancement of technology, online education systems have been experienced all over the world, but not so popular and in practice in Bangladesh before this pandemic (Khan, Rahman, and Islam, 2021).

However, the forcing closure of all educational institutions around the world addressed this online learning system as a new dimension to the education system for active participation of both teachers and students (Dhawan, 2020). Henceforth, transitions are difficult, and rapid adaptation to education in developing country contexts may not be necessary or even unexpected (Zoltan and Ewelina, 2021). even when students have difficulty understanding compared to attending physical classes (Kulal and Nayak, 2020). University closures have affected student performance at various educational levels, particularly as the effectiveness and extent of digital accessibility determines how well students learn (Muthuprasad et al., 2021). More specifically, internet access and appropriate devices as technological components of online learning affect both student performance and progress, Likewise, Bali and Liu (2018) found that physical learning is more interacting than virtual learning in terms of face-to-face interaction, cordial communication and amusement. Again, traditional classes help meet students' needs and improve their performance while the quality of online learning depends to the extent of digital availability and functionality.

Due to the covid-19 pandemic, the education system has been shifted from offline to online without extensive research on the impact, advantages and disadvantages of online education. At that time, it was the only means of communication between academics and students. However, in the developing country context with little familiarity for a few teachers, students, institutional infrastructure and other stakeholders, the rest are yet to adopt these changes. Private universities in Bangladesh are playing a major role in offering tertiary level education and producing more graduates along with public universities. There are a very few studies regarding the perceptions of private university students in the world including Bangladesh. And there is no study regarding the perceptions of students in Bangladesh towards online learning system. This research focused on regional private universities in Bangladesh such as Feni University, Royal University, Brahmanbaria University, First Capital University of Bangladesh, Varendra University, and Leading University where most of the students were not accustomed to the online education system before the pandemic. But adapting to this change during the pandemic has been a challenge for both teachers and students (The Daily Star, 2024). From three recent studies of universities around the world in terms of teachers' and students' perceptions of

online learning, such as India, Indonesia, and Sri Lanka (Howshigan and Nadesan, 2021; Muthuprasad, T. et al., 2021; Harefa, S. and Sihombing, G.L.A., 2022; Abdi, A.W. et al. 2021), the differences from these studies are quite subtle.

Online learning frameworks have become increasingly popular as a dynamic platform for learning and teaching methods for both teachers and students in the United Arab Emirates (UAE) (Sallum and Shallan, 2018). Although, developed countries have introduced online systems in some academic activities such as interviewing foreign admission candidates, online admission processing, online payment systems, online counselling and some online course offerings for international students, this system is completely new for developing and least developed countries like Bangladesh. As a new system of education in Bangladesh, students are faced with various problems, such as infrastructure, internet speed, load-shedding, devices, operating efficiency of devices and financial conditions, etc. Despite these limitations, the education system in Bangladesh worked in full swing during the pandemic which is considered interesting in the sense of the authors to gain insight into why and how students have adapted and whether gender, academic discipline or devices used may have something to do with it.

2. Literature Review and Hypothesis

2.1 Online Learning System and Perception

Online learning is becoming an increasingly popular and positive concept as it offers a wide variety of programs and is more affordable, flexible and convenient (Basilaia and Kvavadze, 2020). But in case of developing country, online courses will not be beneficial in the long run because higher education is primarily focused on practical, lab and field service and is very technical, professional and specialized (Mollah and Parvin, 2020). Nevertheless, online learning reduced the scope of classroom activities resulting in less engagement and preparation (Al-Amin et al., 2021). Similarly, the primary barriers to online education in underdeveloped countries are attention span, comprehension of lessons through online platforms, and unlikely compatibility of internet and electricity (Oluyinka and Endozo, 2019). The situation is further exacerbated by technological limitations, online drop out; inadequate data packs accessing material for classes, low connectivity, shortage of devices, inconvenient learning atmosphere, inability to use technology, poor feedback and teacher's incapacity to handle material and interaction (Rahman et al., 2023). By and large, student’s perception is significantly influenced by e-learner skills, external influences, system interactivity and social influence (Sharma, Sankapal and Gulati, 2020). Students' attitudes toward e-learning were not influenced by a student's discipline (Suri et

al., 2016). However, there is variation in online learning that results in ratings of unexpected outcomes for evaluating learning platforms by males and females (Islam and Mahmud, 2022; Shahzad et al., 2021). Yet, students still have strong ICT skills and positive attitudes towards online learning (Johnson et al., 2021). Kulal and Nayak (2020) studied on the perception of teachers and students toward online learning, students believe that online teaching are not comfortable than offline learning and find it difficult to grasp the online learning method. In contrast, Maphosa (2021) conducted a study and revealed that students' behavioral motive was assertive by the standard performance, higher effort and promoting environment. As a result, students had a favorable impression of online learning. But the lack of technology and the high cost of data have resulted in a major learning loss.

2.2 Disruption and Blended Learning

The perceptions of students' execution on the time of Corona pandemic and showed that, overall, students have favourable attitudes toward online learning (Anwar and Wahid, 2021). According to Paechter and Maier (2010), students prefer blended learning, where a mix of online and physical classes is conducted depending on course requirements. During the time of COVID-19, (Abbasi et al.,2020) assessed the attitudes of 382 students and found that 77% of students had a negative attitude towards online learning, which means that students prefer traditional physical learning to online learning. For instance, over 60% of students concurred that watching recording videos lessons and practical classes and replying brief questions was helpful (Azlan et al., 2020). Thus, the study found that students still feel face to face lecture classes as less monotonous, more interacting and they can ask questions directly to the instructors (Ahmad, 2020). Another study was conducted to examine how students perceive online learning on the time of Corona pandemic in Bangladesh and discovered that despite a number of difficulties when utilizing online platforms, students have a favorable attitude toward online learning. (Rahman and Islam, 2023), even to inadequate infrastructure (Priyadarshana et al., 2021) whereas Nishimwe et al. (2022) studied that there was no discernible difference between learning the material in-person and online in terms of comprehension. Furthermore, they stated that whether they were taking classes in person or online, they put about the same amount of time and effort into their studies.

2.3 Online Learning Movements, Advantages and Challenges

Dutta and Smita (2020) conducted a study to find out how Bangladeshi educators and students felt about virtual instruction during the COVID-19 pandemic and found a lack of gadgets, inadequate internet access, expensive internet, sluggish

internet connections, and trouble accessing websites. Bączek et al. (2021) examined the attitudes of Polish students toward online learning during the COVID-19 epidemic and discovered that although there were a number of difficulties when converting to online learning, most students were eager to continue their education online and felt good about it even after the outbreak., such as low enthusiasm, ineffective time utilization, and limited use of resources. The students listed a number of benefits of online learning, such as increased accessibility, convenience, and flexibility. Harefa and Sihombing's (2022) studied on the students' perceptions regarding the effectiveness of online learning during the COVID-19 pandemic; students in the remote Indonesian province of North Tapanuli believe that online learning is less effective due to not having sufficient support from infrastructure and communication networks. Martin (2020) found that most Australian students recognized the advantages of distance education. Since online learning allowed them to better manage their time and study at their own speed, students liked the freedom it afforded. Students faced difficulties when taking virtual classes and found it difficult to understand the material. Female students demonstrated a higher perception of online learning than male students did (Sarker et al., 2021). While teachers continue to educate in traditional offline classrooms in Bangladesh, students and teachers are using internet technology for the first time to carry out educational tasks (Ramij and Sultana, 2020). Majority of students responded that virtual learning would not the same offline learning (Unger and Meiran, 2020). Gelles et al. (2020); Henriksen, Creely and Henderson (2020) discussed the difficulties instructors experience while transitioning from a traditional classroom to an online one. Nigerian students mentioned in a study, the high cost of ICT devices has a negative effect on e-learning adoption in terms of social presence, social engagement, and satisfaction (Oyediran et al., 2020). Lischer, Safi and Dickson (2021) found that the majority of students choose to return to traditional classroom settings. However, in some circumstances, this preference is higher among students who have just had e-learning experiences, but it is much lower among students who have had both e-learning and face-to-face learning sessions (Gherheș et al., 2021). Singh et al. (2021) found that online education is ineffective because students find it difficult to transition to the online style of education, and offline education remains the most desired medium of education.

2.4 Hypothesis

The hypotheses of the study are as follows:

1. H1: Students' perceptions of online learning vary with respect to gender.
2. H2: Students' perceptions of online learning vary with respect to academic discipline.

3. H3: Students' perceptions of online learning vary with respect to devices used.

3. Research Objectives

The general objective of this research is to find out the students' perception of online classes in the universities of Bangladesh. The specific objectives of this study are:

1. To assess whether the perception of students varies according to gender, academic discipline, and devices used for online classes.
2. To develop a framework based on the benefits and challenges of the online learning system suggested by the respondents.

4. Conceptual Framework

Constructivism is a contemporary theory of learning that was initially introduced by Piaget and subsequently refined by Vygotsky. Constructivism, which primarily draws from the theories of Piaget and Vygotsky, is one of the contemporary theories of learning. This theory focuses on helping the learner form new knowledge by using the current and previous experiences to help them link the gap between what they know and what they need to know. By relying on their current knowledge, learners can select and transform existing ideas to shape new concepts of learning. A "dramatic lessening of reliance on a didactic, textbook-based, transmission of knowledge approach to teaching and learning in the classroom" is supported by this theory of learning, which is based on the notion that pupils actively produce knowledge (Prawat, 2008). According to constructivists, learning occurs when new information is "built into and added onto an individual's current structure of knowledge, understanding, and skills" (Pritchard, 2009). This is because they see learning as the outcome of mental construction. According to this notion, learning occurs most effectively when youngsters actively create their own understanding (Gigbels and Loyens, 2009; Loyens et al., 2009). Constructivism is marked by four features; knowledge building, cooperative learning, metacognition, and real learning task. First, students complete meaningful learning tasks by finding solutions to issues that are applicable to their everyday lives. Second, cooperative learning influences how learners develop new information through teamwork and engagement with others. Thirdly, metacognition is the process by which students become accountable for their own learning and gain new knowledge through self-regulating activities like goal-setting, self-regulation, and self-assessment. Lastly, knowledge construction: the student creates knowledge by learning.

Constructivism has two philosophies: social constructivism and cognitive or individual constructivism (Olsen, 2000; Powell et al., 2009). It implies that knowledge is created through both individual and collective labor. Based on Piaget's theory of cognitive development, individual constructivism primarily focuses on how an individual constructs knowledge on their own by using their own cognitive processes and working alone. In the context of education, this is regarded as an individual work approach. Conversely, Vygotsky's theory of social interaction between an individual and society, which emphasizes language and culture as the fundamental components of interaction, forms the basis of social constructivism. In the context of education, this is regarded as a group-working technique. This theory is supposed to articulate the variations in perceptions of online learning in terms of gender, academic discipline and device used considered as follows:

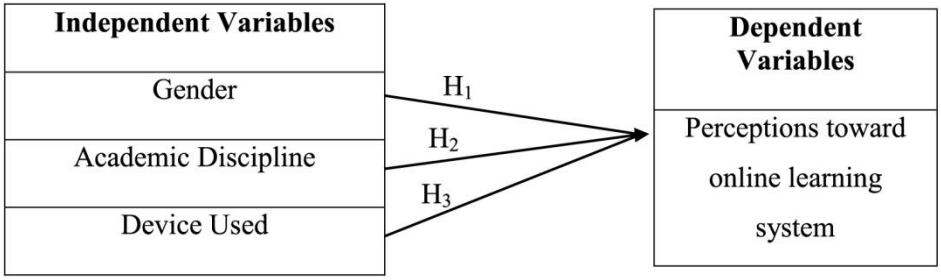

Figure 1: Students' Perception of Online Learning System

5. Research Methodology

Having both qualitative and quantitative data, the present study is mixed method research in nature.

5.1 Research Methods

The research was carried out using observation, interview and questionnaire survey. Observation and interview were employed as qualitative research methods.

5.1.1 Survey

The survey was conducted using questionnaire techniques. To assess students' perceptions, a questionnaire was prepared through extensive review of existing literature and outcome of the pre-study. We used Google Forms to solicit respondents' feedback through two-way questions for the period January 2024 –

June 2024. The structured questionnaire was used as self-administered questionnaire to collect data from respondents.

5.1.2 Observation

As the researchers of the study are directly involved in the teaching profession, it has become easier for them to observe and interact with students during online and offline classes and to evaluate student results through online and offline modes. As a pre-study, the researchers observed 60 students from various disciplines of Feni University who had experience in both online and offline learning systems from the faculties. Observation on the same students was conducted before pandemic on offline classes and during pandemic on online classes. Their responses were taken as content for designing questionnaire.

5.1.3 Interview

Interview method was applied as a qualitative technique in our pre-study. We interviewed a total of 15 students from three faculties of Feni University through face-to-face conversation to find out about the perceptions toward online learning system.

5.2 Population, Sample and Sampling Procedure

There are 112 private universities in Bangladesh (UGC, 2024). Among these universities, the study was conducted on six emerging private universities namely Feni University, Royal University of Dhaka, Brahmanbaria University, First Capital University of Bangladesh, Varendra University and Leading University. The students of three backgrounds namely Faculty of Business Administration, Faculty of Arts, Social Science and Law, Faculty of Science & Engineering were population for our study. All undergraduate level students who have experienced learning in both online and offline mode were taken as sample. Sample students were purposively selected from population. An online questionnaire was sent to the teachers of the respective sample universities to circulate among the targeted students within which responses of 315 students were found.

5.3 Analytical Tools

Both descriptive statistics (frequency, percentage, mean and standard deviation) and inferential statistics (correlation analysis, one-way analysis of variance test, chi-square test) were used for data analysis. Kaiser-Meyer-Olkin (KMO) and Bartlett's tests were used to measure sampling adequacy. IBM SPSS 25 was used as data analysis tool in this study.

6. Results of the Study

Table 1: Sample Adequacy Test Result

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.776
Bartlett's Test of Sphericity	Approx. Chi-Square	981.139
	Df	231
	Sig.	0.000

Table-1 showed the KMO value of the sample is 0.776 which is more than significance level 0.5 which shows that sample is adequate for factor analysis. However, the KMO value closer to 1.0 is considered ideal. The value of Bartlet's test of Sphericity is also at a level of significance.

6.1 Analysis of Respondents' Responses

Table 2: Demographic Analysis of Respondents

Students		
Variables	**Frequency (Total)**	**Percentage (%)**
Gender		
Male	152	48.3%
Female	163	51.7%
Academic Discipline		
Science	63	20%
Arts	87	27.6%
Business	165	52.4%
Device used		
Mobile	181	57.5%
Laptop	16	5.1%
Both	118	37.5%
Internet Connectivity		
Mobile data	39	12.4%
Wi-Fi	54	17.1%
Both	222	70.5%
Suggested teaching method		
Online	63	20.0%
Offline	157	49.8%
Blended	95	30.2%

From Table 2, it was apparent that out of 315 students, 48.3% male and 51.7% female. 52.4% from Business, 27.6% from Arts and 20% from science discipline. 57.5% of students used mobile during online classes, 37.5% students used both mobile and laptop who are and 5.1% students used laptop. To conduct the online classes, 17.1%, students used Wi-Fi, 12.4% students used mobile, and 70.5% students used both mobile and Wi-Fi. It also found that 49.8% students suggested offline teaching method, 20% students suggested online teaching and 30.2% suggested blended teaching method.

6.2 Perception Analysis of Students

Table 1A (Appendix), showed that 79.7% of students faced internet network problems, 53% students faced technical problems. The home environment was suitable said 81.9% of students. It's very interesting that 57.5% students enjoyed online classes, 64.8% student's response that online classes weren't interactive and 74.9% got motivation from teachers during online classes. 66.7% students gave more concentration during online classes. The academic result of 229 students, who are 72.7% was excellent. 224 students who 71.1% got adequate course materials. Of 203 students, 64.8% were not satisfied with the evaluation system. 73% said practical courses were not understandable though online. Understanding capability was not more of 217 students who are 68.9%. 245 students, 77.8% got courses outline. Online classes were convenient to 71.1%. 67.3% opined online learning system not better than offline. 68.3% found mathematical courses difficult, 59.4% didn't get any technical support from university, 62.2 % opined that response rate was more in online classes than offline classes

Table 3: Correlation Analysis (Students)

Correlation between Average Perception Score & Gender	Gender	Perception average
Pearson Correlation	1	0.026
Sig. (2-tailed)		0.647
N	315	315
Correlation between Average Perception Score &Academic Discipline	Perception average	Academic Discipline
Pearson Correlation	1	0.223*
Sig. (2-tailed)		0.003
N	315	315
Correlation between Mean Perception Score and the type of Student's Device to access online classes	Perception average	Device used for online

		classes
Pearson Correlation	1	0.283*
Sig. (2-tailed)		0.000
N	315	315

*Correlation is significant at the 0.05 level (2-tailed)

From the above Table-3, the study found no significant difference between perception of students towards online learning system and gender (0.647>0.05) but significant correlation was found between perception of students towards online learning system & the type of student's device to access online classes (0.00<0.05) and between perception of students towards online learning system & academic discipline (0.003<0.05). These results were also supported at one-way ANOVA analysis.

Table 4: One Way ANOVA Analysis

Perception Average by Gender (ANOVA)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.006	1	0.006	0.210	0.647
Within Groups	9.050	313	0.029		
Total	9.056	314			
Perception Average by Academic Discipline (ANOVA)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.002	1	0.355	15.686	0.003
Within Groups	9.054	313	0.029		
Total	9.056	314			
Perception Average by type of device used (ANOVA)					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.911	2	0.455	17.439	0.000
Within Groups	8.145	312	0.026		
Total	9.056	314			

Table-4 showed no significant difference (F 0.210, p-value 0.647) between average perception score and gender but significant difference between average perception score & academic discipline (F 15.686, p-value 0.003) and between perception of students towards online learning system and pattern of students' material accessing virtual classes (F 17.439, p-value 0.000)

7. Discussion

A new dimension of teaching and learning through online mode was explored in the field of education during the COVID pandemic for developing countries like Bangladesh. Using participant observation and interview techniques, the researchers also found out the challenges from the perspective of students that they faced mobile and internet network problems (Dutta and Smita, 2020; Harefa and Sihmbing, 2022), Lack of technical support, communication barriers, difficult to understand the mathematics course (Adnan and Anwar, 2020; Molla and Parveen, 2020; Al-Amin et al., 2021; Dhawan, 2020). From the students' point of view, online classes have advantages such as effective motivation, favourable home environment, diversity in teaching styles, time flexibility and content availability and improved academic performance. These were supported by (Basilaia and Kvavadze, 2020; Unger and Meiran, 2020; Rajabalee and Santally, 2020). The researchers aimed to explore perceptions whether these perceptions of respondents varied by gender, academic discipline, and devices used for online learning. Studies have shown that students prefer the face-to-face format (Lischer et al., 2021; Singh, et al., 2021; Azlan et al., 2020; Abbasi et al., 2020; Priyadarshana et al., 2021; Rahman et al., 2023) and students' perceptions vary according to academic discipline (Suri et al., 2016; Shahzad et al., 2021; Sarker et al., 2021) and device used for online learning but not according to gender (Sarker et al., 2021).

7.1 Benefits and Challenges of Online Learning System from Students' Perspective

Based on the findings of this research, the following advantages and disadvantages according to student's viewpoint have been pointed out. Most responses to the sample questions for data collection have taken as benefits and challenges of online learning system.

From the students' view points, 74.9% agreed that online teaching is the best for effective motivation for learning, home environment was conducive according to 81.9%, 80% found lots of diversity in teaching method, there were flexibility of time opined by 71.1%, adequate content provided by teachers confirmed by 71.1%, academic performance was better than offline opined by 72.7%, immediate feedback system was more easy according to 62.2%. 32.7% were satisfied with online learning, 66.7% able to give their full concentration and 35.2% were satisfied to the evaluation system during online classes. On the other hand, students faced lots of problems and difficulty during online classes such as network problem, lack of interaction and technical support, toughness to understand mathematical/practical courses, less acceptable and difficult to

understand lectures as79.7%, 64.8%, 59.4%, 68.3%, 67.3% and 68.9% consecutively.The findings of this article can help the readers to understand the actual situation of online education system in Bangladesh and to overcome the before fully implementing the online education system in the future.

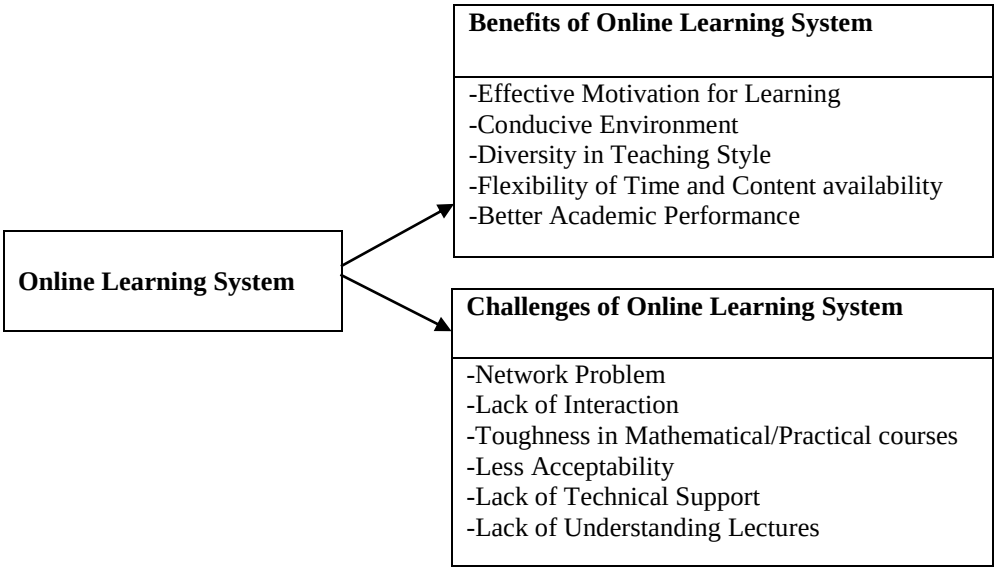

Figure 2: Benefits and Challenges of Online Learning System (Students' Perspective)

8. Theoretical and Managerial Implications

The theoretical contribution of the research highlights the benefits and challenges of online learning system in Bangladesh based on perpetual views of university students. The generalizability of the findings extends beyond regional private universities to public universities established in different regions of Bangladesh, colleges under National University of Bangladesh, as well as privately owned dental and medical colleges in different regions of Bangladesh.

The findings of this study underscore several managerial implications for educators, students, and researchers in the context of online learning during the COVID-19 pandemic at regional level. This study contributes to the existing literature by shedding light on the factors influencing student performance and satisfaction, particularly by examining the effect of perceptions on academic achievement, a previously neglected aspect. This echoes previous research,

highlighting the importance of investigating variables that influence student satisfaction. Educational institutions especially in remote areas can use these insights to improve the quality of education through blended learning approaches. By adapting to world-class education practices and creating conducive learning environments, universities can better prepare for future challenges, such as pandemics, and ensure continued access to education for all stakeholders.

9. Conclusion

Although, this study highlights significant differences and similarities in the perceptions of students regarding online learning system, it is essential to acknowledge its' limitations. The study sample, limited to regional private universities in Bangladesh, limits the generalizability of its findings.

This study focused on regional private universities in Bangladesh. The result of this study may be helpful for other regional universities in Bangladesh to choose the methods of learning like online or offline. The findings may also be used by the regional public universities in Bangladesh along with other countries for further extensive study on perception based on other variables. To address the highlighted challenges, collaboration between key stakeholders such as UGC, Ministry of Education, university authorities, teachers and students is essential. Future research should include a wider range, including public universities and more diverse private institutions with larger sample sizes. Moreover, comparative analysis between different types of universities in Bangladesh and abroad will provide valuable insights. Moving forward, research efforts should focus on developing strategies to exploit the identified advantages and mitigate the challenges of online learning while ensuring the resilience and effectiveness of the education system. Furthermore, exploring how perceptions vary across different demographic and academic factors and their implications for instructional approaches will significantly contribute to the advancement of knowledge in this area.

10. Recommendations

Though the study found some advantages of online learning like effective motivation for learning, conducive teaching environment, diversity in teaching style, Flexibility of time, content availability and online learning can be the best solution for continuing learning in case of disruptions. But it has lots to disadvantages too such as network problem, less acceptability, lack of technical support and lack of understanding lectures smoothly etc. In near future, distance learning, blending learning methods and different online based test are being popularized due to globalization, upgradation of modern technology and to face

normal disruptions in off-line learning system. So, the Bangladeshi universities should develop their infrastructures for blending learning and train up students to cope up with the system. The combined effort of Government and university authority can overcome the lacking in case of effective online learning system.

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Appendix-A

Table 1A: Survey Question Analysis

Survey questions	**Yes**		**No**
	Frequency	Percentage	Frequency
Have you faced any internet network problem during online classes?	251	79.7	64
Have you faced any technical problem during online classes?	167	53	148
Was the environment of your home suitable for conducting online classes?	258	81.9	57
Have you enjoyed the online classes than offline classes?	181	57.5	134
Do you think online classes were more interactive than offline classes?	111	35.2	204
Do you think teacher's teaching style varies according to mode of learning system?	252	80	63
Have you got any motivation from teachers through online during classes?	236	74.9	79
Were you more attentive to online classes than offline?	210	66.7	105
Was your academic result better in online than offline?	229	72.7	86
Have you been provided adequate course materials during online classes?	224	71.1	91
I prefer online evaluation system to offline evaluation system	111	35.2	203
Do you think practical courses were understandable through online?	85	27	230
Your understanding capability was more in online than offline?	98	31.1	217
Have you been given course outline of all courses during online classes?	245	77.8	70
Was the online class schedule convenient to you?	224	71.1	91

Do you think online learning system is better than offline system?	103	32.7	212
Have you found mathematical courses easy in online than offline?	100	31.7	215
Did you get any technical support from your university for online classes?	128	40.6	187
Your response rate was more in online classes than offline classes	196	62.2	119