



Original Article

SWOT Analysis of Online Education System During COVID-19 at University of Agriculture Faisalabad

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ABSTRACT

All educational institution in Pakistan have shifted from physical classes to online classes. The unexpected outbreak of COVID-19 pandemic due to Corona Virus (SARS-CoV-2) has shocked the complete world. **Objective:** Analysis of Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis of online education system during COVID-19. **Methods:** The population of this study was all the students of M.Phil. 2nd Education 2Semester students at the University of Agriculture Faisalabad. The sample size of 84 respondents was obtained by using the survey software technique, available online at <http://www.surveysystem.com> with a confidencelevel of 93% and a confidenceinterval of 7%. Well- structured questionnaire was designed for data collection from the respondents. Then the data were analyzed by using Statistical Package for Social Sciences (SPSS). **Results:** Online learning has many strengths like free access, saves time, promotes retention of learning and reduces the cost of commuting/transportation. Its high dependency on the network connection, teachers' inability to check on every student and limited assessment are among weaknesses of online learning. **Conclusion:** The major opportunity of online education is to connect with teachers and students residing far-away places.

INTRODUCTION

The COVID-19 pandemic was declared as a Public Health Emergency of International Concern on January 30, 2020, by World Health Organization and as a pandemic on March 11, 2020. More than 188 counties and territories globally are affected resulting in the death of people. Almost all governments had imposed lockdown in their countries to deal with this pandemic. Various educational institutions have been closed. There are many challenges which are being faced by the educational institution caused by the Coronavirus epidemic. This disaster additionally disturbed the education sector. This pandemic bound many faculties and schools to stay temporarily closed. Various faculties, schools and universities have shifted to online education [1-21]. These challenges are discussed in the SWOT analysis. SWOT is an abbreviation of strengths, weaknesses, opportunities, and threats.

Higher Education Commission (HEC) of Pakistan also directed all universities and organizations to start online classes during COVID-19. The COVID-19 infection has a fast spreading rate globally. It has also a deep effect on economics, health cultures and education.

Strengths of online education: COVID-19 helps redefine the role of teacher in the classroom. The online education has taught future skills such as creativity, communication and life skills necessary for collaboration [2-14]. It is a new program that aims to unlock technology to provide education using the latest and greatest technical tools available to students in all fields to create remote learning materials [3]. In some countries, for example, the Ministry of Education, youth and sports began to accept learning. Teachers travel far and wide, use many classroom platforms such as Telegram and Zoom [4-15]. With the transition from traditional education to online learning,

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Weaknesses of Online Learning: Online learning has numerous strengths; it also has a certain weakness when it comes to study and teaching in higher education. The absence of instructors is a significant difference between traditional and online learning which has a negative impact on academic growth and personal development. The loneliness of learners or students is caused by a lack

METHODS

The study was descriptive enlighten "The SWOT analysis of online education system during covid-19 at the University of Agriculture, Faisalabad". The research was conducted in District Faisalabad which is located in

Punjab province of Pakistan. The Population of this study was consisting of 146 students of M.Phil. Education 2 Semester students at the University of Agriculture Faisalabad. A list of all students was collected from the Institute of Agricultural Extension, Education and Rural Development. A sample is a small subset of a larger population. The sample is the true representative of the population. The characteristics of a sample represent the characteristics of the whole population from which the sample was drawn. A study was conducted in district Faisalabad. In the present study online survey calculator was used to identify the sample size for data collection among the total population with a Standard confidence level of 93% and 7% confidence interval. Total 84 respondents were selected as sample size purposively (who show a willingness to participate in the study). The process of selecting a group of people for research in such a way that they represent the larger group from which they will be chosen is known as sampling. A convenient sampling technique was used to select the sample. A questionnaire is a tool for collecting information from human beings/respondents. The questionnaire consists of questions/statements that ask the respondents to provide the required information [2]. For data collection during the present research a questionnaire for students was constructed by the researcher under the guidance of a supervisor. All required information and views of respondents were obtained through a questionnaire. The researcher prepared these questionnaires with the help of a supervisor.

Validity of research instrument: Validation of research in the survey is related to the extent to which the survey measures the correct elements that need to be measured [8]. Validity and additionally make sure the accuracy of all the results of the questions. The validity of the instrument was ensured through checking of the instrument to the experts from Institute of Agricultural Extension Education and Rural Development.

Reliability: The reliability of the research instrument is the counterpart of the validity. Both reliability and validity of research instruments are essential for getting quality data. Reliability in statistics is the overall consistency of a measure. The result of the research is consistent and repeatable [2]. The reliability of the data is checked through SPSS.

Data Collection: The information was collected via a questionnaire. The researcher collected data online. Due to the COVID-19 pandemic situation, the researcher also sent questionnaires to respondents. During the collection of data, different problems were faced by the researcher.

These problems consisted of non-serious behavior of respondent's issues regarding privacy/confidentiality unavailability of respondents. The Likert scale was used for questionnaire-type questions which are commonly used and involved in the research study.

Data Analysis: After the collection, the data were tabulated and entered into the required softwares and analyzed with the help of the Statistical Package for Social Sciences (SPSS). Such as frequency, percentage, weighted score, rank order and measures of central tendency (mean value, standard deviation) were also used to describe the data. Tables were also used to provide a brief and comprehensive understanding of results [9].

RESULTS & DISCUSSION :

Demographic information:

Table 1 shows the demographic information of participants in the category of gender, age, father background, CGPA, last semester and residential area. Data given in the Table 1 showed that 57.5% of the respondents were females and 39.1% were males. Most of the respondents were female participated in this research. Online female learners prove more perseverant and engaged than males while males tend to hold more stable positive attitudes toward online learning [10].

| Variables | Frequency | Percentage |
|-----------------------------|-----------|------------|
| Gender | | |
| Female | 50 | 57.5 |
| Male | 34 | 39.1 |
| Age | | |
| 21-25 year | 32 | 36.8 |
| 26-30 year | 27 | 31.0 |
| Above 30 | 25 | 28.7 |
| CGPA | | |
| 2.5-3.00 | 4 | 4.6 |
| 3.01-3.50 | 10 | 11.5 |
| 3.50-4.00 | 70 | 83.9 |
| Father Qualific tion | | |
| Literate | 65 | 74.7 |
| Illiterate | 19 | 21.8 |
| Residential Area | | |
| Rural | 38 | 43.7 |
| Urban | 46 | 52.9 |

Table 1: Distributed of the respondents regarding background information

The Table 1 showed that 36.8% of the respondents were 21-25 years old, 31.0% respondents were 26-30 years old and almost online learning third 28.7% respondents were above to 30 years old. The age might affect the teaching-learning and managerial process in school as observed that senior teachers have more experience and

knowledge than youngster's [11]. The information about the current semester CGPA of the respondent's results revealed that 4.6% of respondents fall in the CGPA 2.5-3.00 and 11.5% of respondents fall in the CGPA group 83.9% of respondents fall in the CGPA group in the current semester. It is indicated from the table 1 that a large number of the respondents fall in the current semester CGPA 3.51-4.00 which is 83.9%. Results revealed that the participants who belonged to the rural area were 43.7% and belonged to the urban area were 52.9%. It is indicated from the table that a large number of the respondents were living in rural area which is 43.7% (Table 1).

| Strengths | Mean | S.D |
|--|-------|-------|
| Reduces cost of commuting transportation | 3.893 | 1.140 |
| Saves time | 3.690 | 1.108 |
| Convenient and fl xible | 3.619 | 0.903 |
| Distance learning is possible | 3.651 | 0.955 |
| Reduces refreshment cost | 3.583 | 1.174 |
| Gives access anytime anywhere | 3.488 | 1.135 |
| Saves money | 3.452 | 1.236 |
| Sharing screen online makes learning easier | 3.417 | 1.165 |
| Less distraction among students during online learning | 3.190 | 1.156 |
| Enhances the knowledge of the student | 3.095 | 1.093 |

Table: 2 Distribution of the respondents regarding strengths of online education during COVID-19

Table 2 indicated the overall major strengths of online learning as perceived by students. The major strength was reduction in the cost of commuting and transportation with the highest mean value (3.893) among all. This was followed by saving money (Mean =3.690) and being convenient and flexible (Mean =3.619). After attending online classes, students felt that through online learning distance education could be attained (Mean = 2.61). This was followed by the advantage of online learning reduced the refreshment cost (Mean= 3.583). Students further agreed that online learning gave access anytime anywhere (Mean=3.488). Besides these, students agreed that it facilitated saving time and is flxible to use. However, students opined that it saved money (Mean =3.452). It was sharing of screen online make easier (Mean=3.417). Most of the student said that it was enhancing the knowledge of the student (Mean =3.095). The strength of online education was less distraction among students during online learning was medium (Mean=3.190).

| Weaknesses | Mean | S. D |
|--|-------|-------|
| During online learning, the student may not be attentive | 4.179 | 0.907 |
| The problem of load shedding | 4.108 | 0.811 |
| Student feedback is limited in online learning | 4.012 | 0.898 |
| Lack of coordination among teachers and students | 3.881 | 1.155 |
| Face technical problem | 3.869 | 1.003 |
| During online learning, the teacher cannot have a check on every student | 3.869 | 1.229 |
| Inability to focus on screens | 3.774 | 0.700 |
| Increase the habit of cheating | 3.690 | 1.119 |
| Economic reason | 3.675 | 0.898 |
| Computer literacy is low | 3.548 | 0.883 |
| The costs time | 3.119 | 1.134 |

Table 3: Distribution of the respondents regarding the weaknesses of online education during COVID-19

Table 3 indicated that the most leading weakness of online learning as perceived by the respondents during online learning was lack of attentions (mean =4.179). Online learning gave information and instruction for practical sessions but the student is unable to assess their performance or get real-world experience. It's pointless to know something and then transfer it in an unsystematic manner [12-18]. This was followed by the problem of load shedding (mean =4.108) which was followed by students' feedback being limited in online learning (mean =4.012), lack of coordination among teachers and students (mean =3.881). Face technical problems (mean=3.869) and during online learning, the teacher cannot have a check on every student (mean=3.869). Inability to focus on screens, (mean=3.774) increase the habit of cheating (mean =3.690), economic reason (mean=3.675) lack of computer literacy (mean=3.548). The costs time (mean=3.119)(Table 3).

| Opportunities | Mean | S. D |
|--|-------|-------|
| Online learning is the best-suited option during a lockdown like situation | 3.786 | 1.018 |
| Development of new online resources | 3.643 | 1.001 |
| Up skilling in new technologies and resources | 3.571 | 0.935 |
| Provides one platform to connect students and teachers from faraway place | 3.590 | 0.950 |
| Provide technical instructions | 3.518 | 1.063 |
| Working remotely | 3.446 | 0.784 |
| Allows students to contact the teacher as and when need arises | 3.274 | 0.961 |
| Academic collaboration | 3.226 | 0.935 |
| Increase the academic achievements of students | 3.190 | 1.023 |
| Frequent meetings are possible online | 1.750 | 0.519 |

Table 4: Distribution of the respondents regarding opportunities of online education during COVID-19

It is revealed from table 4 among all opportunities, online learning is the best-suited option during a lockdown like situation (Mean=3.786) was at 1 position. It is opined that online learning was the best option during the lockdown

as they knew that due to only online learning they were able to continue their classes. Students also felt that it allows the development of new online resources (Mean=3.643). A significant number of medical students have reported that they find online resources helpful (Smith et al., 2014). The frequent meetings are possible online (Mean=1.750). Most of the students (Mean=3.571) reported up-skilling in new technology and resources to be an opportunity. This is an opportunity to develop technological skills. One academic stated was a "chance to upskill and incorporate alternative software and novel resources into our teaching." This sudden leap in upskilling and innovation by a large proportion of academics has the potential to transform medical education by incorporating online learning into all aspects of the curricula [13-20]. The opportunities provided by online learning are academic collaboration (Mean=3.512). The opportunities provided by online learning as perceived by university students. Most of the students (Mean=3.590) response that it enables students and teachers from faraway places to join at one platform. The opportunities of online education increase the academic achievements of students (Mean=3.190). The opportunities of online education provide technical instructions (Mean=3.518)(Table 4).

| Threats | Mean | S. D |
|--------------------------------------|-------|-------|
| Effects on eyes | 4.061 | 0.806 |
| Unsecure Wi-Fi | 3.768 | 1.092 |
| Damage the creativity skills | 3.732 | 0.969 |
| Reduces the habit of regularity | 3.720 | 0.972 |
| Risk of damage of electronic devices | 3.634 | 1.000 |
| Issue with assessment | 3.561 | 1.066 |
| Effects overall health | 3.488 | 1.146 |
| It affects private life | 3.476 | 1.102 |
| Reduces student management | 3.506 | 0.896 |
| Insecure website | 3.305 | 1.096 |

Table 5: Distribution of the respondents regarding the threats of online education during COVID-19

In Table 5, most of the respondents reported that technologies tool's effect on eyes (Mean=4.061) was one of the dominant threats of online education during COVID-19. This was due to attending online classes that students felt the strain on their eyes and shoulders. This threat was followed by the threat of unsecured Wi-Fi (Mean=3.768), their damage of creativity skill (Mean=3.732), the threats of online education system reduced the habit of regularity (Mean=3.720). Other threats as perceived by the students regarding online classes were risk of damage of electronic devices, issue

with assessment, effects overall health, life, management and insecure website (Table 5).

CONCLUSION

The online programs offer technology-based instructional environments that expand learning opportunities. The major strength was reduction in the cost of commuting and transportation, while the most leading weakness of online learning during online learning students was lack of attention

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