



## WHAT DRIVES STUDENTS' SATISFACTION WITH E-LEARNING AMID COVID-19 PANDEMIC?

Fachrudin Fiqri Affandy<sup>1</sup>, Ira Eka Pratiwi<sup>2</sup>

<sup>1</sup>Fakultas Ekonomi dan Bisnis Islam, IAIN Fattahul Muluk Papua, Jayapura, Papua Province

<sup>2</sup>Graduate School of Pan-Pacific Kyung Hee University-International Campus, South Korea

---

### Article History

Received May 10, 2021

Revised Jun 1, 2021

Accepted Jun 5, 2021

---

### Keyword:

Students' Satisfaction,  
E-learning, Pandemic

---

### Abstract

This study aims to analyze the students' satisfaction in the Faculty of Economics and Islamic Business, State Islamic Institute (IAIN) Fattahul Muluk Papua with the online learning process during the COVID-19 pandemic. It is necessary to have an evaluation of the online learning carried out during the COVID-19 pandemic so that the process can be measured and the learning quality may be improved. This study uses five Servqual dimensions, namely Tangible, Reliability, Responsiveness, Assurance, and Empathy to measure student satisfaction with the online learning process during the COVID-19 pandemic. This study uses quantitative methods with data analysis using multiple linear regression. Data were collected from 143 students of the Faculty of Economics and Islamic Business IAIN Fattahul Muluk Papua using a questionnaire that had been tested for validity and reliability. The results of this study indicate that the tangible variable and empathy variable has a significant effect on student satisfaction, while the Reliability, Responsiveness, and Assurance variables do not significantly influence students' satisfaction with online learning during the COVID-19 pandemic.

This is an open access article under the [CC BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



---

### Corresponding Author:

Ira Eka Pratiwi

Graduate School of Pan-Pacific Kyung Hee University-International Campus, South Korea

E-mail: [pratiwi.iraeka@khu.ac.kr](mailto:pratiwi.iraeka@khu.ac.kr)

---

### INTRODUCTION

This study aims to analyze students' satisfaction at the Faculty of Islamic Economics and Business, State Islamic Institute (IAIN) Fattahul Muluk Papua with the online learning process during the COVID-19 pandemic. It is important to conduct an evaluation regarding the online learning system to get the information and

improvement in the implemented policy (Herliandry et al., 2020). COVID-19 is a disease caused by the coronavirus which was officially announced by the World Health Organization (WHO) as a pandemic outbreak on March 11, 2020. Until now, based on World meters data accessed on January 26, 2021, there are around 219 countries in the world infected with the coronavirus with a total of more than 100 million cases. Since then, efforts have been made around the world to reduce the spread and transmission of this virus by prioritizing social distancing, wearing masks, and washing hands. There are even many countries that limit the entry of foreign nationals to implement lockdowns.

The affect caused by the implementation of distance restrictions has an impact on all sectors of public life, including the education sector. As a result, the government through the Ministry of Education and Culture issued a policy regarding the implementation of education during the spread of COVID-19 by implementing non-face-to-face learning or distance learning (PJJ) which utilizes online applications or media ranging from elementary to tertiary levels.

Until now, online learning is still the main choice for all educational institutions in the world because the spread of COVID-19 is still increasing. Various applications ranging from Google Classrooms, ZOOM, WebEx, or even e-learning media are designed individually by each institution so that learning objectives can be maximally achieved while still paying attention to quality during this outbreak. While some other using the hybrid system which combine the online and offline system with several conditions, many of the institutions developed their e-learning platform for online lecturers and quality achievements.

The implementation of online learning amid COVID-19 pandemic raises some arguments in many parties of the society. However, they are who mostly affected by this intervention are the students as beneficiaries. Several studies related to this topic have been conducted before, such as conducted, (Zaheer, et al. 2020) who found that the majority of students were satisfied with the e-learning model in Pakistan, especially for higher education, even though the institutional capacity was limited Zaheer et al (2015). In addition, research was also conducted, (Khan et al. 2020) and (Aristovnik et al, 2020) who recommend e-learning systems in pandemic conditions with the need for quality improvement to make it better.

Therefore, so that the quality or quality of learning amid the COVID-19 pandemic can be measured and continuously improved, it is necessary to evaluate the online learning process carried out during the COVID-19 pandemic. The State Islamic Institute (IAIN) Fattahul Muluk is one of the public universities in Indonesia located in Papua Province which implemented this policy during the COVID-19 pandemic. Previously, IAIN Fattahul Muluk Papua implemented face-to-face lectures in the classroom, but due to COVID-19, the lecture system was carried out online. Thus, the results of the analysis of this study are expected to be a recommendation to improve the quality of higher education learning in Indonesia in general and in Papua more specifically.

## METHODS

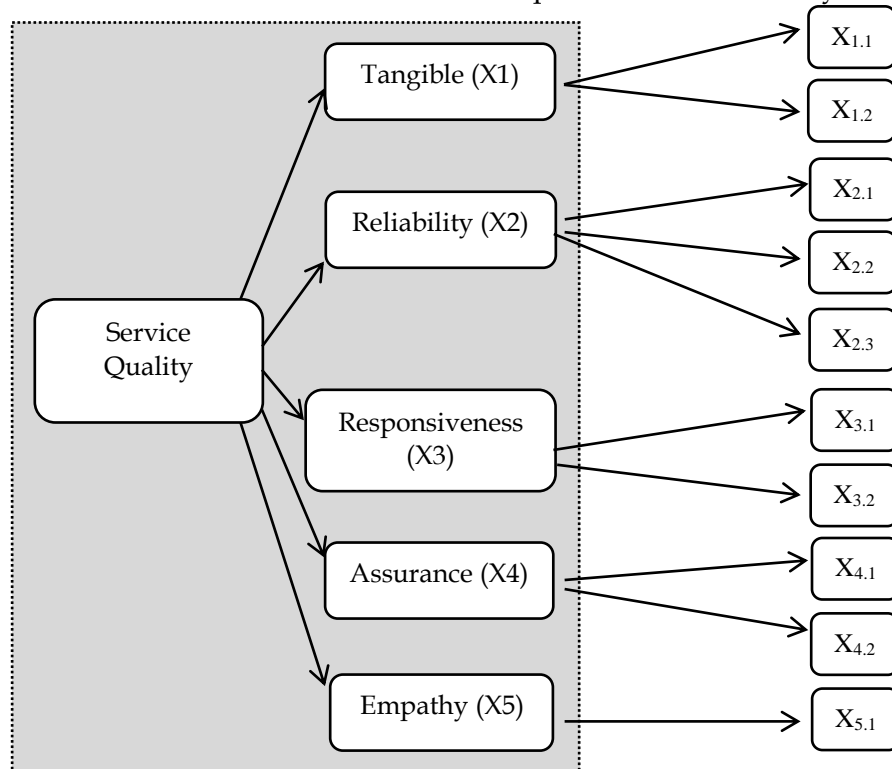
This research method is quantitative using descriptive statistics with primary data collected through questionnaires to 143 students of the Faculty of Economics and Islamic Business using the nonprobability sampling technique. There are 10 attributes in the questionnaire that the respondent must respond to. These attributes are derived according to the five Servqual dimensions that are generally used to measure a

person's level of satisfaction with the services provided (Wagner et al, 2017). Figure 1 shows the five dimensions of Servqual and its attributes.

Validity and reliability tests were carried out first on the questionnaire used as an instrument in data collection before the data was collected and analyzed. This is done to ensure that the data obtained comes from valid and consistent instruments to provide results that are following the situation in the field (Yusup, 2018). Based on the Pearson product-moment test, the instrument is said to be valid if the correlation value is positive and the probability is less than 0.05, while the reliability test is based on the Cronbach's Alpha test where if the  $r$  value is greater than the  $r$  table value, it indicates that the instrument used is reliable (Widi, 2011).

Furthermore, data analysis was carried out to examine the effect of each dimension of service quality on student satisfaction in online learning during the COVID-19 pandemic using multiple regression analysis. In this case, the independent variable consists of the tangible dimension, the reliability dimension, the responsiveness dimension, the assurance dimension, and the empathy dimension. Meanwhile, the dependent variable is student satisfaction.

**Figure 1.** Dimensions and the Attributes of Servqual Used in This Study



Source: Wagner et al. (2017)

Where,

X1.1 : E-learning media used by lecturers in providing online learning.

X1.2 : The Internet network supports online learning.

X2.1 : The clarity of the lecturers conveyed the lecture plan, syllabus, rules, and evaluations to be carried out at the first meeting.

X2.2 : Number of lecturers meetings in delivering lecture materials online.

X2.3 : Lecturers start online learning on time.

- X3.1 : Lecturers are responsive in responding to student questions/problems.
- X3.2 : Lecturers have used interactive activities in the e-learning system, such as chat, forums, comment fields, properly.
- X4.1 : The lecturers have prepared activities (attendance, chat, and other online communication facilities) and material sources (files, URL links, etc.) that can be accessed during lecture hours.
- X4.2 : The activities and resources prepared by the lecturers represent the learning objectives and have satisfied the students.
- X5.1 : Assignments given by lecturers during e-learning.

## RESULTS

### Validity and Reliability Test

Based on the validity test result, the value of Pearson correlation and the significance for all attributes indicate that the instrument used in this study is valid. Since, the R-value of each attribute is higher than the r-table, while the probability of all items is less than 0.05. Also, the value of Cronbach's Alpha is 0.675 reveals the stability of each item used in the instrument and indicates that it is reliable. Therefore, the data collected and measured can be free from random error variance (Irawati & Jonatan, 2020).

**Table 1.** Result of Validity Test

Items	Pearson Correlation	Sig.(2-tailed)
X1.1	0.286	0.001
X1.2	0.331	0.001
X2.1	0.651	0.000
X2.2	0.271	0.001
X2.3	0.516	0.000
X3.1	0.419	0.000
X3.2	0.576	0.000
X4.1	0.763	0.000
X4.2	0.764	0.000
X5.1	0.297	0.001

*Source: Processed from Primary Data*

### Result of Servqual Survey

As mentioned before that there are five dimensions of Servqual used in this research, which is derived into ten attributes. The result of the survey from 143 students as the respondents reveals each attribute, as shown in Table 2 below. It can be seen from the tangible dimension that the majority of the students are satisfied with the e-learning media applied by lecturers when delivering the materials, with 67.1% of the respondents are satisfied, 24.5% are very satisfied. Meanwhile, most of the students are not delighted with the internet network that supports online learning. In this survey, 67.8% of the students are dissatisfied, and 25.9% are very dissatisfied with the internet network.

The statistic result for the reliability dimension indicates that most of the students are satisfied with the lecturers' explanation of the lecture plan, syllabus, rules, and evaluations in the first online learning meeting. Around 49.7% of the students are

satisfied, 33.6% are very satisfied, 8.4% are neutral, while 7.7% of others are dissatisfied. Besides, 59.4% of the students and 37.1% are very satisfied with the lecturers' punctuality in conducting e-learning. Most of them also feel happy with the total of e-learning meetings. Approximately 62.2% and 14% of the respondents are respectively satisfied and very satisfied.

Furthermore, 65% of the students are satisfied with the lecturers' responsiveness in replying to their questions or problems, and 35% of others are very satisfied. The respondents are also delighted with the interactive activity in the e-learning system, especially the use of comments columns, forums, or chat windows by lecturers. Around 55.9% and 30.8% of the students are satisfied and very satisfied. The assurance dimension result reveals that the students are also pleased with the lecturers' online activities such as attendance, chat facilities, and material sources. Around 79% of the respondents find that the lecturers assure them of good e-learning preparation and accessible system.

Meanwhile, 72% of the students perceive that lecturers' activities and resources have represented the learning objectives. However, most of the students are not delighted with the lecturers' assignments during online learning. Around 39.9% and 15.4% of the respondents are dissatisfied and very dissatisfied with the tasks respectively and find that it is too much and hard for them. While 13.2% of the students are very satisfied and 21% are satisfied with the lecturers' assignment.

**Table 2.** Descriptive Statistics of the Servqual Dimensions

Item	Frequency (%)					Mean	St.Deviation
	VS	S	N	DS	VDS		
<b>Tangible</b>							
E-learning media used by lecturers in providing online learning. (X1)	35 (24.5%)	96 (67.1%)	0 (0%)	11 (7.7%)	1 (0.7%)	4.07	0.784
Internet network supports the online learning. (X2)	0 (0%)	0 (0%)	0 (0%)	97 (67.8%)	37 (25.9%)	3.45	0.947
<b>Reliability</b>							
The clarity of the lecturers conveyed the lecture plan, syllabus, rules, and evaluations to be carried out at the first meeting. (X3)	48 (33.6%)	71 (49.7%)	12 (8.4%)	11 (7.7%)	1 (0.7%)	4.08	0.889
Number of lecturers meetings in delivering lecture materials via online. (X4)	20 (14%)	89 (62.2%)	34 (23.8%)	0 (0%)	0 (0%)	3.90	0.609
Lecturers' punctuality in starting online learning. (X5)	53 (37.1%)	85 (59.4%)	5 (3.5%)	0 (0%)	0 (0%)	3.71	1.013
<b>Responsiveness</b>							
The responsiveness of the lecturers in responding to every student questions/	50 (35%)	93 (65%)	0 (0%)	0 (0%)	0 (0%)	4.35	0.479

problem in online system. (X6)

The use of lecturers for interactive activities in the e-learning system, such as chat, forums, comments column, was well done. (X7)	44 (30.8%)	80 (55.9%)	15 (10.5%)	2 (2.8%)	0 (0%)	4.15	0.712
--	---------------	---------------	---------------	----------	--------	------	-------

#### Assurance

Lecturers have prepared activities (attendance, chat facilities and other online communication) and material sources (files, URL links, etc.) that can be accessed during lecture hours. (X8)	47 (32.9%)	66 (46.2%)	23 (16.1%)	5 (3.5%)	2 (1.4%)	4.06	0.870
---	---------------	---------------	---------------	----------	-------------	------	-------

The activities and resources prepared by the lecturers represent the learning objectives and have satisfied the students. (X9)	31 (21.7%)	74 (51.7%)	28 (19.6%)	7 (4.9%)	3 (2.1%)	3.86	0.085
--	---------------	---------------	---------------	----------	-------------	------	-------

#### Empathy

Assignments given by lecturers during e-learning. (X10)	19 (13.2%)	30 (21%)	15 (10.5%)	57 (39.9%)	22 (15.4%)	2.76	1.185
---	---------------	-------------	---------------	---------------	---------------	------	-------

Source: Processed from Primary Data (2021)

Note: VS = Very Satisfied, S = Satisfied, N = Neutral, DS = Dissatisfied, VDS = Very Dissatisfied

### Multiple Regressions Analysis

The Linear regression result showed that the R-square value of the model was 0.438 and the adjusted R-square was 0.417. Thus, these results explain that the determination of the independent variable consisting of tangible variables, variable reliability, variable responsiveness, variable assurance, and empathy for the dependent variable (student satisfaction) is 43.8%, while the remaining 56.2% is explained by other variables not included in this model. Table 3 presents the summary results of the regression model.

**Table 3.** Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.662 <sup>a</sup>	0.438	0.417	0.599	1.742

Dependent Variable: Students' satisfaction with e-learning

Meanwhile, the t-test results show the significance of each independent variable on the dependent variable. Based on these results it can be seen that the tangible variable and empathy variable have a significant effect on student satisfaction at the 1% and 5% significance levels. This is indicated by the t-test value of the tangible variable of 10,037



with a p-value of  $0.000 < 0.05$ , while the empathy variable has a t-test value of  $-2.887$  with a p-value of  $0.005 < 0.05$ . While variable reliability, variable responsiveness, and variable assurance did not have a significant effect on student satisfaction in the learning process during the COVID-19 period. A summary of the regression results can be seen in Table 4 below.

**Table 4.** Regression Result

Independent Variable	Coefficient of Regression	Standard of Error	t-value	p-value
Constant	0.142	0.637	0.222	0.824
Tangible	0.892	0.089	10.037	0.000***
Reliability	0.162	0.128	1.267	0.207
Responsiveness	0.124	0.111	1.116	0.267
Assurance	-0.033	0.089	-0.369	0.713
Empathy	-0.139	0.048	-2.887	0.005**

Dependent variable: Students' Satisfaction on E-learning

Significant level: \*\*\* 0.001, \*\* 0.01, \* 0.05

## DISCUSSIONS

The result of the survey from 143 students in the Faculty of Islamic Economics and Business, State Islamic Institution Fattahul Muluk Papua gives a clear picture the majority of the students are satisfied with the e-learning system conducted in the COVID-19 pandemic. The five dimensions of Servqual used in this research consist of tangible reliability, responsiveness, assurance, and empathy to reveal the students' satisfaction. This study is in line with research conducted, (Carolina et al, 2020) which finds that students are satisfied with online learning during the pandemic. However, in terms of internet connections and assignments, the students seem unsatisfied. The geographic condition of Papua province leads to the limitation of internet connection in several regions, therefore many of the students have difficulty connecting to the internet. Even since the early to mid-2021, there have been lost of internet connection twice due to natural factor, and it obstructs the online learning process amid the pandemic. In addition, students also complain about the number of assignments given by the lecturers during the pandemic. Other studies suggest that students do not feel satisfied with the e-learning conducted by their schools or universities (Megawanti et al., 2020; Priyasturi & Suhadi, 2021; Rahmawati & Putri, 2020) because of several reasons, including the internet connection, and interaction between students and lecturers.

Based on the regression result, it can be interpreted that the variable of tangible and empathy has a positive and negative influence on students' satisfaction. If there is an improvement on online media used by lecturers in delivering online classes or materials, it leads to an increasing in students' satisfaction with e-learning. Also, if the support of internet education is a very important factor in the students' satisfaction. If the internet connection is down, the students' satisfaction with e-learning decreases. The study also reveals that the variable of empathy significantly has a negative effect on students' satisfaction. It indicates that when lecturers give more assignment during the e-learning, it minimizes the students' satisfaction. In contrast, the study conducted (Madesrinadi & Nilakusumawati (2008) finds that the reliability factor is

the most important variable to increase the satisfaction of students, including professionalism, the hospitality of the academic staff, and accuracy in estimating the final score. The study conducted by (Napitupulu, 2020) also suggests that the students do not satisfied with the e-learning system in many aspects including the technology, the lecturers, and the materials. However, the research done by (Asrul, 2020) indicates that several important variables can increase the students' satisfaction in online learning, such as knowledge and skills in e-learning, responsiveness to the student, as well as giving the assignment to the students.

Base on the study result, it can be concluded that overall, the students in the Faculty of Islamic Economics and Bussiness, State Islamic Institution Fattahul Muluk Papua are satisfied with online learning conducted during the COVID-19 pandemic. In addition, using the dimensions of Servqual, the results of this study indicate that the tangible variable and empathy variable has a significant effect on student satisfaction, while the Reliability, Responsiveness, and Assurance variables do not significantly influence students' satisfaction with online learning during the COVID-19 pandemic. The policy implication can be drawn from these results, including the improvement of lecturers' skills and knowledge, developing infrastructures and technology both in the scale of internal institutions and the government as the external parties to support the learning process. In addition, the evaluation of the learning quality has to be implemented continually to measure the process and provide enhancement.

## REFERENCES

- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability (Switzerland)*, 12(20), 1–34. <https://doi.org/10.3390/su12208438>
- Asrul, N. A. M. (2020). Ekspektasi dan Tingkan Kepuasan Mahasiswa terhadap Kualitas Layanan Pendidikan secara Daring selama Pandemi COVID 19. *Jurnal Administrasi Publik*, 16(2), 111–122. <https://makassar.lan.go.id/jap/index.php/jap/article/view/53>
- Carolina, I., Supriyatna, A., & Puspitasari, D. (2020). Analisa Tingkat Kepuasan Mahasiswa Terhadap Perkuliahan Daring Pada Era Pandemi Covid 19. *Prosiding Seminar Nasional Riset dan Information Science (SENARIS)*, 2, 342–347.
- Herliandry, L. D., Nurhasanah, N., Suban, M. E., & Kuswanto, H. (2020). Pembelajaran Pada Masa Pandemi Covid-19. *JTP - Jurnal Teknologi Pendidikan*, 22(1), 65–70. <https://doi.org/10.21009/jtp.v22i1.15286>
- Irawati, D. Y., & Jonatan, J. (2020). Evaluasi Kualitas Pembelajaran Online Selama Pandemi Covid-19: Studi Kasus di Fakultas Teknik, Universitas Katolik Darma Cendika. *Jurnal Rekayasa Sistem Industri*, 9(2), 135–144. <https://doi.org/10.26593/jrsi.v9i2.4014.135-144>
- Khan, M. A., Vivek, V., Nabi, M. K., Khojah, M., & Tahir, M. (2020). Students' Perception towards E-Learning during COVID-19 Pandemic in India: An Empirical Study. *Sustainability*, 13(1), 57. <https://doi.org/10.3390/su13010057>
- Madesrinadi, G., & Nilakusumawati, D. (2008). Faktor-faktor Penentu Kepuasan



- Mahasiswa Terhadap Pelayanan Fakultas sebagai Lembaga Pendidikan. *Cakrawala Pendidikan*, 3(3), 217-231.
- Megawanti, P., Megawati, E., & Nurkhafifah, S. (2020). Persepsi Peserta Didik terhadap PJJ pada Masa Pandemi COVID-19. *Jurnal Ilmiah Pendidikan*, 7(2), 75-82.
- Napitupulu, R. M. (2020). Dampak pandemi Covid-19 terhadap kepuasan pembelajaran jarak jauh. *Jurnal Inovasi Teknologi Pendidikan*, 7(1), 23-33. <https://doi.org/10.21831/jitp.v7i1.32771>
- Priyasturi, M. T., & Suhadi. (2021). Journal of Language and Health. *Journal of Language and Health*, 1(2), 49-56.
- Rahmawati, & Putri, N. E. M. I. (2020). Learning From Home dalam Perspektif Persepsi Mahasiswa Era Pandemi Covid-19. *Prosiding Seminar Nasional Hardiknas*, 1, 17-24. <http://proceedings.ideaspublishing.co.id/index.php/hardiknas/article/view/3>
- Wagner, A., Merino, E., Martinelli, M., Polacinski, É., Wegner, R. da S., & Godoy, e L. P. (2017). the Quality of Services in a Higher Education Institution: an Evaluation for the Integration of Ahp , Servqual and. *Disciplinarium Scientia*, 12(1), 109-129.
- Widi, R. (2011). Uji Validitas Dan Reliabilitas Dalam Penelitian Epidemiologi Kedokteran Gigi. *Stomatognatic*.
- Yusup, F. (2018). Uji Validitas dan Reliabilitas Instrumen Penelitian Kuantitatif. *Jurnal Tarbiyah : Jurnal Ilmiah Kependidikan*, 7(1). <https://doi.org/10.18592/tarbiyah.v7i1.2100>
- Zaheer, M., Gondal, U. H., & Qadri, M. M. (2015). E-Learning and Student Satisfaction. *9th Annual conference of Asian Association of Open Universities (AAOU), At Kuala Lumpur, Malaysia, June 2016*, 1-12. [https://www.researchgate.net/publication/295400881\\_E-Learning\\_and\\_Student\\_Satisfaction](https://www.researchgate.net/publication/295400881_E-Learning_and_Student_Satisfaction)