

# Strategies to Improve Student Satisfaction Through the Quality of Online Learning Facilities and Infrastructure, Characteristics of Academic Staff, Lecturers Competence, and Good University Governance in Medan

Yeni Absah<sup>1</sup>, Beby Karina<sup>1</sup>, R.Hamdani Harahap<sup>2</sup>

<sup>1</sup>Department Management, Faculty Economic and Business Universitas Sumatera Utara, Indonesia

<sup>2</sup>Department Anthropology, Faculty Social and Politic Universitas Sumatera Utara, Indonesia

## ABSTRACT

In this era of the global Covid-19 spread, Indonesia is one of the countries affected in this pandemic problem. The Covid-19 pandemic has had a devastating impact on all sectors. One of the sectors affected is the education sector where the government makes an online learning policy. The purpose of this research is to know the influence of online learning facilities and infrastructure, characteristics of academic staff, competence of lecturers, governance of universities to the satisfaction of students in the city of Medan. The samples in this study were 250 students with purposive sampling and data processing methods using SPSS. Based on the results of the study, it is known that, simultaneously, the facilities and infrastructure of online learning, characteristics of academic staff, competence of lecturers, good university governance have a positive and significant effect on student satisfaction. Partially, the facilities and infrastructure of online learning, lecturer competence, and good university governance have a positive and significant effect on student satisfaction while the characteristics of academic staff negatively and insignificantly affect student satisfaction.

**Keywords:** Online teaching and learning facilities, characteristics of academic staff, competence of lecturers, good university governance, student satisfaction

## Correspondence:

Yeni Absah

Department Management, Faculty Economic and Business Universitas Sumatera Utara, Indonesia

Email: [yeni.absah@usu.ac.id](mailto:yeni.absah@usu.ac.id)

## BACKGROUND

In the current Covid-19 pandemic, Indonesia is one of the countries affected in this pandemic problem. The Covid-19 pandemic has had a devastating impact on all sectors. One of the sectors affected is the education sector where the government makes online learning policies. This policy is certainly made in order to suppress the spread of coronavirus. During the Covid-19 pandemic, online lectures are considered the most appropriate learning process for students. As stated by Fredy *et al.*, (2020), the intense pandemic has forced the global closures of universities and other higher education institutions.

Online learning allows students to maintain their learning processes under flexible scheduling. However, some students consider online learning more difficult than regular one due to such problems as internet data quotas, network stability, availability of laptops, better understanding of learning materials as opposed to face-to-face meetings, the readiness of universities to provide online learning facilities and infrastructure, and partial readiness of lecturers and students in operating online learning systems quickly, such as preparing digital lecture materials.

Teacher quality is an important educational issue that is connected to student achievement, and teacher qualifications and competence are important components of teacher quality (Long *et al.* 2017; Okapala & Ellis, 2005; Darling-Hammond, 2000). Brožová *et al.* (2018) find that innovative education, good communication skills, ability of improvisation, and democratic way of teaching are the most important lecturers' competencies from students' point of view. Oral - based presentation is preferred to IT based one. Knowledge of the most important managerial competencies can help lecturers and universities to increase quality of educational process and attractiveness of the university for students.

Nowadays, various media have been used in online or distance learning, ranging from free to paid such as virtual classes using Google Classroom, Edmodo, and Schoology services (Enriquez, 2014; Siat, 2015; Iftakhar, 2016), and instant messaging apps such as WhatsApp (So, 2016) as well as e-learning apps owned by each college. Despite their presence, the effectiveness of those online learning services is incomparable to studying offline or in person. Therefore, researchers are curious if online learning can provide better results and academic achievements when compared to offline learning. The answer is discoverable through checking student satisfaction and motivation. To prove this, many comparative studies have been conducted to examine whether face - to - face teaching methods are most effective, or whether online learning is the best (González-Gómez, Jeong, and Rodríguez (2016)). Therefore, it is very important in understanding student satisfaction with various programs in online learning. According to Rahamat *et al.* (2012), Chow and Shi (2014), and Al-Rahmi (2015), teaching staff, characteristics and technology, and teaching design significantly affect student satisfaction.

However, there are only few researches on how to improve student satisfaction strategy when viewed through online learning facilities and infrastructure, academic staff characteristics, lecturer competence, and good university governance. Previous research is still focused on looking at learning media such as Gaffar and Septyandi's research (2020) which sees how online learning media affect student satisfaction, Sharma *et al.*'s research (2020) which examines how medical campuses in Nepal in dealing with online learning in this pandemic, and Shahzad *et al.*'s research (2020) which investigates about how online learning affects students across genders. Therefore, this study tries to look at the overall aspects that affect the satisfaction of students from universities in Medan.

**LITERATURE REVIEW**

**Online Learning Facilities and Infrastructure**

According to Sukmadinata (2009:49), "Learning facilities are all that is needed in dynamic and static teaching and learning processes to achieve educational goals running smoothly, regularly, effectively, and efficiently. Mulyasa (2009) stated that educational facilities are tools and equipment directly used to support the educational process, especially the teaching and learning process such as buildings, classrooms, table, chairs, and learning tools and media, while educational infrastructure is a learning facility that indirectly supports the course of the educational or teaching process such as courtyards, gardens, parks, roads to campus, sports facilities, praying halls only when used directly for the teaching and learning process.

**Characteristics of Academic Staff**

Every university, institute, college, polytechnic, or academy has a governance unit which organizes technical and administrative services that include academic administration, financial administration, general administration, student administration, planning administration, and information systems. The quality of universities governance unit is visible in several aspects. Assessments can come in terms of form, reliability, responsiveness, certainty, and empathy levels. Assessment to form includes whether the facilities (equipment, equipment) used in administrative services is complete in range, sufficient in number, in good shape, and keeping with the latest development of office technology. Administrative staff have good performance, capable, reliable and willing to carry out their respective duties by paying attention to good and efficient procedures and methods and carrying out the work consistently and accurately. In their work, administrative staff requires speed, responsiveness, polite and learned actions and appearance, display of trust and conviction, and a show of genuine attention to every element that needs their service.

**Lecturer Competency**

Pirohová (2008) suggests that a lecturer's professional competence can be characterized as the ability to give lectures influenced by one's abilities, knowledge, experience and skills, but also one's willingness and capacity to use his or her potential functionally in adult teaching and assume responsibility for one's decisions during the educational process. That includes communication, development of learning skills, social competencies, problem solving, working with ICT, etc.

**Good University Governance**

Demands the implementation of good governance not only in non-governmental sectors, especially in public companies (Hidayah *et al.*, 2019). According to Trakman & South (2008) that good university governance (GUG) can be seen as an application of the basic principles of the concept of "good governance" in the system and the process of governance in higher education institutions.

This governance if implemented correctly, in accordance with the established rules, will encourage lecturers to work professionally, because the organizational structure is clear, the tasks, personnel functions and mechanisms are clear and applied. As well as management leadership favoring the teaching staff. Good university governance can create a conducive working atmosphere, so it will encourage lecturers to be more active in working. A conducive work environment, will further encourage lecturers willingly and willingly to carry out activities that develop, exert and maintain certain behaviors that contribute concretely to the completion of work. However, if control and control deviate from the rules that have been re-established, it will affect the performance of lecturers to be unprofessional.

**Student Satisfaction**

According to Parks, *et al.* (2013: 103): "Student Satisfaction is a form that someone acquires performance experience (or results) that meets his expectations, which includes; 1) service wait time, 2) service speed and accuracy, 3) accuracy in keeping appointments, 4) hospitality and courtesy of leaders, lecturers, and staff in behaving and speaking, 5) knowledge of lecturers and employees in giving service, 6) procedures in service and adjustment of services, 7) ease of contact of leaders, lecturers, and staff, 8) comfortable, clean service place for students, 9) creating smooth service, 10) service hospitality influencing student satisfaction."

**RESEARCH METHOD**

The research type is causal associative (causality). Data collection was conducted by distributing questionnaires to 250 students in Medan with minimal university criteria accredited B and has a minimum number of students of 500 people. In this research, the sampling is conducted by utilizing purposive sampling and accidental sampling with saturated sampling.

This research utilized two types of data resources: (1) distribution of questionnaires, and (2) documentations of studies. Linear regression analysis is used as data analysis technique to find out the influence of the independent variables: online teaching and learning facilities, academic staff characteristics, lecturer competencies, and university governance to the dependent variable, student satisfaction. Additionally, this research used descriptive statistical analysis method and depth interview as data analysis techniques.

**RESULTS AND DISCUSSION**

The results showed based on the table of coefficients of determination where the value of Adjusted R Square is 0.549 which means that variations in student satisfaction can be influenced by online learning facilities, lecturer competence, university governance, and academic staff characteristics of 54.9% while the remaining 45.1% is influenced by other factors not studied in this study.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.746 <sup>a</sup>	.557	.549	3.95887

a. Predictors: (Constant), Characteristics of Academic Staff, Good University Governance, Online Learning Facilities, Lecturer Competence

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4821.721	4	1205.430	76.913	.000 <sup>b</sup>
	Residual	3839.803	245	15.673		
	Total	8661.524	249			
a. Dependent Variable: Student Satisfaction						
b. Predictors: (Constant), Characteristics of Academic Staff, Good University Governance, Online Learning Facilities, Lecturer Competence						

Simultaneous test results showed that online learning facilities, lecturer competence, university governance, and academic staff characteristics positively and significantly

influence student satisfaction, which is known from a significant value smaller than alpha ( $0,000 < 0,05$ ).

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.993	1.927		-1.034	.302
	Online Learning Facilities	.401	.055	.425	7.249	.000
	Lecturer Competence	.328	.088	.231	3.746	.000
	University Governance	.411	.120	.211	3.418	.001
	Characteristics of Academic Staff	-.034	.061	-.027	-.560	.576
a. Dependent Variable: Student Satisfaction						

Based on the table it is known that:

Online learning means have a positive and significant effect on student satisfaction. It is known that the coefficient value of 0.401 has a positive value and a significant value smaller than alpha ( $0,000 < 0,05$ ). Lecturer competency has a positive and significant effect on student satisfaction. It is known that the coefficient value of 0.328 which has a positive value and a significant value smaller than alpha ( $0,000 < 0,05$ ). Good university governance has a positive and significant effect on student satisfaction. It is known that the coefficient value of 0.411 has a positive value and a significant value smaller than alpha ( $0,001 < 0,05$ ). and characteristics of Academic Staff negatively and insignificantly affect student satisfaction. It is known that the coefficient value is -0.034 which has a negative value and a significant value greater than alpha ( $0,576 > 0,05$ )

## DISCUSSION

It is known that online learning means have a positive and significant effect on student satisfaction. The presence of online meeting applications today such as Zoom, Google Meet or learning applications such as Google Classroom and *Ruang Guru*, and even on social media platforms such as WhatsApp have allowed students and teachers to maintain educational activities. Sun *et al.* (2008) found that the flexibility of time, learning methods, and places in online learning affects student satisfaction with learning. The competence of lecturers has a positive and significant effect on student satisfaction. It is discovered that all teachers have good competence in teaching, which is proven by students' understanding the courses taught by lecturers. Therefore, online learning, of course does not hinder the teaching and learning process. Sadikin *et al.* (2019) found that many students have difficulty in understanding the lecture materials provided online. On the other hand, some students may not be reluctant in listening to the lecturer's explanation of a material, but they find more comfort in presenting ideas and questions in online learning. Szpunar, Moulton, & Schacter, (2013) state that students spend more time daydreaming on

online lectures than when attending face-to-face lectures. Therefore, the ability of lecturers in encouraging active participation of students is necessary to allow students absorb lecture materials better. Helena Brožová, Jana Horáková, Jiří Fiedler (2018) find that the lecturers' skills in improvisation are also appreciated by the students because they want to be respected as the active recipients of transferred knowledge, they do not want to be just passive listeners. Muzenda (2013) states that lecturers should regularly review their knowledge of students and subject matter in order to be able to interpret the needs of their students.

Good university Governance has a positive and significant effect on student satisfaction, which shows that universities already have good governance in carrying out the teaching and learning process online. Good university Governance involves policies and procedures for decision - making and control over the direction and management of the organization to be effective (Lucianelli, 2017). Covid 19 pandemic certainly makes all universities have to adjust the governance of the teaching and learning process. Generally, universities in Medan use Zoom and Google Meet in the learning process. The internet data subsidy for students from the Government of the Republic of Indonesia makes the learning process easier because online learning applications certainly require sufficient internet connection. Therefore, students are satisfied with the existing online learning process thanks to the good university management on facilitating related students' needs.

The characteristics of academic staff negatively and insignificantly affect student satisfaction. In this online learning the involvement of academic staff is very little because due to the presence of Zoom application and other learning media, which remove direct contact with academic staff. The current web - based system keeps students away off campus to take care of files. They just need to upload their files in the system. Thus, in this case, the characteristics of academic staff do not affect student satisfaction because of the missing involvement of academic staff in the online teaching and learning process.

## CONCLUSION AND SUGGESTATION

Simultaneously known online learning facilities, competence of lecturers, governance of higher education and characteristics of academic staff positively and significantly affect student satisfaction while partially the characteristics of academic staff negatively and insignificantly.

With the many learning media today of course students have felt satisfied, moreover the online learning media is easy to use both on smartphones and on PCs, the competence of lecturers has also been very good where lecturers as faculty are able to explain courses clearly and easily understood by students, university governance has been perceived satisfactory by students which is known from the performance of lecturers who are always on time in teaching and there are also some PT that have their own learning media that is certainly very helpful for students in learning online. While internet network problems are a barrier to online learning, Powers, Brooks, Galazyn, and Donnelly's (2016) research shows that students tend to score less when they take exams online rather than face-to-face.

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