The Effect of E-Learning Service Quality on Loyalty Medited by Satisfaction on Private Universities Students In Banten Province During Covid 19 Pandemic

M. Rachman Mulyandi, Farida Jasfar, Sarfilianty Anggiani

Abstract. *This study aims to examine the effect of e-Learning System Quality, e-Learning Instructor Quality, e-Learning Course Material Quality, e-Learning Administrative Service Quality and e-Learning Support Service Quality on overall e-learning service quality and to examine the effect of overall e-learning service quality. e-learning service quality on student satisfaction and student loyalty. The number of respondents involved in this study were 370 respondents. All respondents are students in Banten Province until January 2021. This research is research with a quantitative approach that uses an instrument in the form of a questionnaire. The research data were analyzed using the Partial Least Square analysis technique with the help of the Smartpls program. Based on the results of the analysis in this study, several results were obtained that -Learning System Quality, e-Learning Instructor Quality, e-Learning Course Material Quality, e-Learning Administrative Service Quality and e-Learning Support Service Quality had a positive and significant effect on overall e-learning. service quality and overall e-learning service quality on student satisfaction and student loyalty. The Managerial implications in this study need to be considered in the implementation of online learning, especially during the covid 19 pandemic, student satisfaction and loyalty will be achieved if there is good quality teaching and good administrative services. Student satisfaction can be part of a marketing promotion strategy for the University. The novelty in this research is by using online learning methods can create satisfaction and student loyalty in Private Universities in Banten.*
Keywords: *e-Learning Quality, student satisfaction, student loyalty, Partial Least Square*

I. Introduction

In Indonesia the first case of Covid 19 was detected on March 2, 2020 where the transmission was obtained from Japanese citizens who were visiting Indonesia. On April 9, 2020, the pandemic had entered all provinces in Indonesia, totalling 34 provinces with DKI Jakarta, West Java, and East Java being the provinces in Indonesia with the highest number of Covid-19 virus numbers in Indonesia (Sukur, Kurniadi, & Faradillahi, 2020).

The President issued a regulation to control the spread of the virus by carrying out large-scale social restrictions (PSBB) through Government Regulation Number 21 of 2020 concerning Large-Scale Restrictions in the Context of Accelerating the Handling of Covid 19. This PSBB will be implemented by all regions in Indonesia suspected of being infected. covid 19 which will be held by the respective Regional Governments through the Regional Head's decision. As for the requirements for implementing the PSBB, it must have the number of cases or the number of deaths increasing and rapidly expanding into other adjacent areas and there is an epidemiological link with similar events in other regions or countries. Where PSBB will regulate school and work activities, restrictions on religious activities and restrictions on activities in open public places (setkab.go.id, 2020).

To avoid the spread of the Covid-19 virus which is increasingly spreading from the education sector, the government through the Minister of Education and Culture (Mendikbud), Minister of Religion (Menag), Minister of Health (Menkes), and Minister of Home Affairs (Mendagri) issued a Joint Decree on Guidelines for the Implementation of Learning. in the 2020/2021 school year during this covid 19 pandemic. Lecture activities can be carried out in a mixed manner or commonly known as hybrid learning with a note that they must carry out the health protocol as strictly as possible and can be carried out in areas that have only yellow zones and green zones. To support these activities, a Circular Letter of the Minister of Education and Culture of the Republic of Indonesia was issued regarding Circular Letter Number 4 of 2020 concerning the Implementation of Education Policies in the Emergency Period for the Spread of Covid-19. This policy also applies at the higher education level, where private universities (PTS) are required to provide comprehensive services to students using an online system with the aim of minimizing face-to-face activities (Pratam, Rio, & Mulyati, 2020).

In Banten Province, the rate of spread of the COVID-19 virus is very significant, the development of its spread in densely populated areas, namely in Tangerang City, Tangerang Regency, and South Tangerang City (bantenprov.go.id, 2020). Therefore, the implementation of University-level education needs to be regulated to prevent the spread of covid 19, so Banten Governor Regulation Number 25 of 2020 was issued concerning Guidelines for Large-Scale Social Restrictions in Handling Covid 19 in Tangerang Regency, Tangerang City and South Tangerang City which regulates the implementation Education from beginner level to student level. In this regulation, the Governor of Banten expressly gives instructions to temporarily suspend all activities at schools or universities and change the implementation of all learning activities by conducting learning at home using distance learning methods.

According to research from (Junaedi, 2020) of 158 students as much as 75.3% still feel more comfortable to do face-to-face learning because there are obstacles from boredom when doing online learning, where they are only able to focus on online learning for 1 to 2 hours. In addition, students also feel the ineffectiveness of online learning due to network constraints, online learning information is not optimally obtained by students and students only feel able to participate in online learning for a maximum of only 2 months.

If the service industry is not supported by the right services, it will result in dissatisfaction by consumers, in this case if online or remote education services are not provided properly to students, it will result in these students feeling dissatisfied with university services. Therefore, improving the quality of education services, especially regarding online learning procedures, is very necessary so that students will remain satisfied with the services provided by the University. If student satisfaction is not met, it is feared that students will become bored in participating in online learning, decrease student grades, decrease student loyalty and the university will lose its competitiveness (Irawati, 2020).

In digital marketing, customer loyalty means that loyal visitors come back virtually continuously. Loyal customers are willing to give referrals to potential new customers, therefore PTS must try hard to maintain the loyalty of their students. This shows that customer loyalty is a very important thing built by service providers to avoid customers switching to other service providers (Romadhoni, Hadiwidjojo, & A, 2019).

According to research conducted by (Pham, Limbu, Yam, Bui, & Trung, 2019) the factors of Online learning service quality which consists of 3 dimensions, the main key in creating satisfaction and loyalty than students in Vietnam. Meanwhile (Ayuni & Mulyana, 2019) stated that Online Service Quality consists of 4 dimensions providing significant results on student satisfaction and loyalty.

Based on the description above, the title adopted from this research is "The Effect of Online Learning Service Quality on Loyalty mediated by Satisfaction on Private Higher Education students in Banten Province during the Covid 19 Pandemic Period".
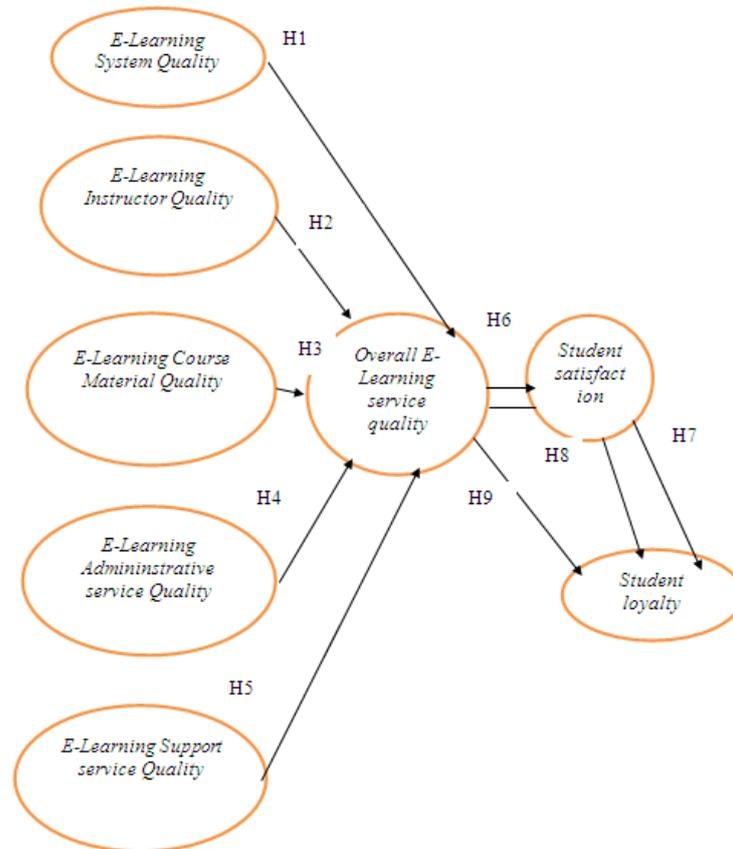
II. Methods

The population in this study were all students studying in Banten Province until January 2021. Based on the calculation of the hair formula regarding the sample, the sample number of respondents in this study was three hundred and seventy respondents, which is ten times the number of indicators needed to answer the questionnaire that will be distributed via Google Form. The selected respondents are samples that meet the criteria that have been determined by the researcher. In this study, the researcher used a non-probability sampling analysis technique with the convenience sampling method because in this study the researcher took a sample that coincided with what he encountered at that time. In this study, the authors used two methods of data collection, namely questionnaires and literature study. The data collection method in this study uses a questionnaire because the questionnaire is an efficient data collection method if the researcher knows with whom the variables will be measured and knows what can be expected from the respondents. A questionnaire regarding the analysis of the relationship between the quality of online learning services and student loyalty through student satisfaction at private universities in Banten Province. The data that has been obtained comes from the distribution of questionnaires conducted online using a Likert scale questionnaire. In this study, the researcher used data collection methods with literature studies in search of deeper and more complete information or theories on research topics through several sources such as articles or scientific journals, books, and electronic sources (Ghozali & Latan, 2015).

In this study, researchers used PLS as a method of data analysis to test the research hypotheses that had been formulated. Data analysis method using PLS is used to explain the correlation of several latent variables at the same time. PLS has two models, namely the outer model or measurement model and the inner model or structural model. The outer model or measurement model is used with the aim of measuring the reflective model through validity and reliability testing and then using the inner model with the aim of knowing the correlation of latent variables (Ghozali & Latan, 2015).

Hypothesis testing in this study was carried out using the Partial Least Square (PLS) analysis technique with the help of the Smartpls program. The stages in this PLS analysis include the outer model testing phase and the inner model testing phase. In the outer model testing stage, testing of the validity and construct reliability of

all indicators in the model is carried out, while at the inner model stage, hypothesis testing will be carried out based on the significance value and path coefficient between the independent and dependent variables (Ghozali & Latan, 2015). Hereby is the research framework for this research:

III. Results and Discussion

Based on the results of the discriminant validity test in the table above, all indicators have the highest indicators in their constructs not in other constructs so that it can be stated that all indicators have met the requirements of discriminant validity.

The reliability of the constructs can be assessed from the Cronbach Alpha value and the Composite Reliability value of each construct. The recommended value of composite reliability and Cronbach alpha is more than 0.7, but in development research, because the limit of the loading factor used is low (0.5), the value of composite reliability and low Cronbach alpha is still acceptable if the requirements for convergent validity and validity are met. discriminant has been met.

Based on the results of the analysis in the table above, the Cronbach alpha and composite reliability values of all constructs have also exceeded 0.7, this indicates that all constructs have met the required reliability, so it can be concluded that all constructs are reliable. Based on the results of the analysis in the table above, the R Square value of all dependent variables is in the moderate and strong categories so that the model is stated to be strong in predicting the relationship between variables in the model. The calculation of Q Square in the table above shows that the Q Square value of all independent variables has exceeded 0.35, so it can be stated that the PLS model is very good because it has great predictive relevance so it is suitable to be used to test research hypotheses. Based on the results of the analysis in the table above, the results of the analysis show that the SRMR value of the model is 0.064. Because the SRMR model < 0.08, it is stated that the model is perfect fit in predicting the influence between variables in the model.

Based on the results of testing the hypothesis, the following test results are obtained e-learning system quality has a positive and significant effect on the overall e-learning service quality, this indicates that the better the e-learning system quality, the higher the overall e-learning service quality, e-Learning Instructor Quality has a positive and significant effect on Overall e-learning service Quality, this shows that the better the e-Learning Instructor Quality, the higher the Overall e-learning service Quality, e-Learning Course Material Quality has a positive and significant effect on Overall e-learning service Quality, this shows that the better the e-Learning Course Material Quality, the higher the Overall e-learning service Quality, e-Learning Administrative Service Quality has a positive and significant effect on Overall e-learning service Quality, this shows that the better the

e-Learning Administrative Service Quality, the higher the Overall e-learning service Quality, e-Learning Support Service Quality has a positive and significant effect on the Overall e-learning service Quality, this shows that the better the e-Learning Support Service Quality, the higher the Overall e-learning service Quality, Overall e-learning service Quality has a positive and significant effect on Student Satisfaction, this shows that the better the Overall e-learning service Quality, the higher, Student Satisfaction has a positive and significant effect on student loyalty, this shows that the better the student satisfaction, the higher the student loyalty, Overall e-learning service Quality has a positive and significant effect on Student Loyalty, this shows that the better the Overall e-learning service Quality, the higher the Student Loyalty, and the higher the Overall e-learning service Quality, the Student Satisfaction will increase which in turn will increase Student Loyalty.

The value of adjusted R Square variable Overall e-learning service Quality is 0.652, this means that 65.2% variance Overall e-learning service Quality is influenced by e-Learning System Quality, e-Learning Instructor Quality, e-Learning Course Material Quality, e-Learning Administrative Service Quality and e-Learning Support Service Quality. Furthermore, the adjusted R Square of the Student Satisfaction variable is 0.870, this means that 87% of the Student Satisfaction variance is influenced by the Overall e-learning service Quality variable, then the adjusted R Square of Student loyalty is 0.888 indicating 88.8% Student Loyalty is influenced by Overall e-learning. learning service Quality and Student Satisfaction.

From this study it can be concluded that the better the e-learning system quality, the higher the overall e-learning service quality, so that every private university that is currently running online learning should prepare and or improve the learning quality system, which may not have rules in this regard. PTS which regulates it so that it is immediately approved by PTS. If this is not carried out immediately, it will result in the Overall e-learning service Quality running not optimally and will not provide satisfaction to students who are taking online learning at the PTS. From the results of this study it is said that the better the e-Learning Instructor Quality, the higher the overall e-learning service quality. So PTS need to provide training and development to teaching staff and educators who provide learning and support learning programs at PTS so that they are able to provide or deliver material that can be accepted by students. The challenge in providing online learning is quite different from the challenges in ordinary face-to-face courses, because the obstacles in the class implementation process are different from online classes which often occur obstacles such as internet network disturbances, sound disturbances or interference from activities that do not support learning so that students find it difficult to concentrate compared to regular face-to-face classes. The results of this study state that the better the e-Learning Course Material Quality, the higher the overall e-learning service quality, so that private universities must really pay attention to the quality of teaching materials prepared by the existing educators and must really provide good quality. and good because it can give satisfaction to students in carrying out learning and provide good service quality to students. From the results of the above discussion, the better the e-Learning Administrative Service Quality, the higher the overall e-learning service quality. So PTS must also prepare administrative services when doing online learning because even though it looks unimportant, online services are also needed during this covid 19 pandemic. Examples of document requests that must be prepared by students where PTS must be able to provide facilities for making these documents online without having to meet face-to-face. The results of this study indicate that the better the e-Learning Support Service Quality, the higher the overall e-learning service quality. Therefore, PTS must also prepare standard rules regarding the support system in the implementation of the online learning system. The support system, among others, that must be prepared by PTS is a new student admission system, class transfer system, class schedule replacement system where all of these things must be prepared completely online without having to meet face to face and also set by PTS so that it does not provide confusion for students. From the results of the study, it is said that the better the Overall e-learning service quality, the higher the Student Satisfaction at PTS. From this, PTS must pay full attention to the entire online learning service system that has been provided to carry out online learning to students. PTS must pay attention to the quality of lecturers, the quality of lecturer learning, the quality of teaching materials provided, the quality of administrative and support services in online learning, and other services that have been stipulated in the PTS rules to support online learning provided by PTS to students. If the overall has been considered, it will create a good quality of service so that it can provide satisfaction to the PTS students. The results of this study say that the better the Student Satisfaction, the higher the Student Loyalty. This needs to be considered by PTS to be able to pay attention to the factors that form satisfaction from students to PTS. Because one of the factors forming student loyalty is if the student is satisfied with the quality of online learning services provided by PTS to them. The advantage for PTS when they have loyal students is that they are a good marketing strategy to invite prospective new students to join the PTS. Loyal students will invite or inform their closest people about the quality of services provided by the PTS. The results of this study indicate that the better the Overall e-learning service quality, the higher the Student Loyalty. So that private universities must also think about the quality of online learning services provided by private universities to them. The quality of online learning services can occur if the support system or the core of online learning is provided and inaugurated by PTS the procedures for using it so that it does not cause a new problem to its students. The results of this study indicate that the higher the Overall e-learning service Quality, the Student Satisfaction will increase which in

turn will increase Student Satisfaction. This matter must be considered by PTS how student loyalty can be formed in the service quality factor of online learning. It is said that the higher the quality of services provided by online learning, it will create satisfied students and from those satisfied students will form loyal students. From this, private universities must be very, very careful so as not to make students dissatisfied with the quality of online learning services provided by the campus, because if students are not satisfied, loyalty will not be formed. Students who are not loyal to PTS will result in the possibility that these students will not complete their education at the PTS so that it will create a bad image in the eyes of consumers to the PTS. So in this case PTS must really prepare good quality services in terms of online learning to students during this covid 19 pandemic.

IV.   Conclusions

The conclusion of this research stated that E-learning system quality has a positive and significant effect on the overall e-learning service quality, this shows that the better the e-learning system quality, the higher the overall e-learning service quality, E-Learning Instructor Quality has a positive and significant effect on Overall e-learning service Quality, this shows that the better the e-Learning Instructor Quality, the higher the Overall e-learning service Quality, E-Learning Course Material Quality has a positive and significant effect on Overall e-learning service Quality, this shows that the better the e-Learning Course Material Quality, the higher the Overall e-learning service Quality, E-Learning Administrative Service Quality has a positive and significant effect on Overall e-learning service Quality, this indicates that the better the e-Learning Administrative Service Quality, the higher the Overall e-learning service Quality, E-Learning Support Service Quality has a positive and significant effect on the Overall e-learning service Quality, this shows that the better the e-Learning Support Service Quality, the higher the Overall e-learning service Quality, Overall e-learning service Quality has a positive and significant effect on Student Satisfaction, this shows that the better the Overall e-learning service Quality, the higher the Student Satisfaction, Student Satisfaction has a positive and significant effect on Student Satisfaction, this shows that the better the Student Satisfaction, the higher the Student Loyalty, Overall e-learning service Quality has a positive and significant effect on Student Loyalty, this shows that the better the Overall e-learning service Quality, the higher the Student Loyalty, and Student Satisfaction can mediate the indirect effect of Overall e-learning service Quality on Student Satisfaction. This means that the higher the Overall e-learning service Quality, the Student Satisfaction will increase which in turn will increase Student Satisfaction.

To create student loyalty, it is necessary to pay attention to how to implement the online learning system that has been carried out by PTS, especially during this covid 19 pandemic. Before becoming loyal, students will experience student satisfaction, to achieve satisfaction in terms of e-learning learning services, it is necessary to have good quality teachers and good administrative services as well in its implementation. Student satisfaction can also be part of a marketing and promotion strategy through loyalty because with student loyalty, students will tell others, at least to their closest family and With the results of this study, it is hoped that it will be able to provide an overview to private universities in Banten Province to pay more attention to the quality of online learning during the COVID-19 pandemic.

Bibliography

[1].   Ayuni, D., & Mulyana, A. (2019). Applying Service Quality Model as a Determinant of Success in E-Learning: The Role of Institutional Support and Outcome Value. *Review of Integrative Business and Economics*.
[2].   *bantenprov.go.id*. (2020). Retrieved from bantenprov.go.id: https://www.bantenprov.go.id/covid-19
[3].   Ghozali, I., & Latan, H. (2015). *Partial Least Square Konsep, teknik dan aplikasi menggunakan program Smart PLS 3.0 untuk penelitian empiris.* Semarang: Badan Penerbit Universitas Dipenogoro.
[4].   Irawati, Y. (2020). Evaluasi Kualitas Pembelajaran Online Selama Pandemi Covid 19: Studi Kasus di Fakultas Teknik, Universitas Katolik Darma Cendekia. *Jurnal Rekaya Sistem Industri*.
[5].   Junaedi, E. (2020). Pembelajaran Melalui Online atau Daring dalam Perspektif Mahasiswa. *Jurnal Horizon Pedagogia*.
[6].   Pham, L., Limbu, B., Yam, L., Bui, & Trung. (2019). Does e-learning service quality influence e-learning student satisfaction and loyalty? evidence from Vietnam. *International journal of educational technology in Higher education*.
[7].   Pratam, E., Rio, & Mulyati, S. (2020). Pembelajaran Daring dan Luring pada masa Pandemi covid 19. *Gagasan Pendidikan Indonesia*.
[8].   Romadhoni, B., Hadiwidjojo, S., & A, N. (2019). Relationship Between E-Service Quality, E-Satisfaction, E-Trust, E-Commitment in Building Customer E-Loyalty: A Literature Review. *International Journal of Business and Management Innovation*.
[9].   *setkab.go.id*. (2020). Retrieved from setkab.go.id: https://setkab.go.id/inilah-pp-pembatasan-sosial-besar-besaran