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Student Satisfaction and Perceived Value on Word of Mouth (WOM) During the COVID-19 Pandemic: An Empirical Study in Indonesia

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Abstract

Maintaining distance has become an effective pioneering measure in reducing the spread of the coronavirus outbreak (called COVID-19), so that distance learning has become an option for educators. This study seeks to explain the role of student satisfaction in mediating the effect of perceived value on word of mouth (WOM). The population of this study is students in Bali who had attended online lectures during the COVID-19 pandemic. The sample size consists of 260 people selected with a purposive sampling method. The analysis is using SEM-PLS. The results shows that perceived value had a positive and significant effect on WOM. Perceived value also has a positive and significant effect on student satisfaction and student satisfaction has a positive and significant effect on WOM. There are several variables that need to be added, such as the online system itself, the quality and ease of use of online media. Satisfaction can mediate the effect of perceived value on WOM partially. Therefore, it is important for higher education institutions in Bali to increase the perceived value obtained by students, especially in the functional value, to increase student satisfaction and ultimately have an impact on increasing positive WOM about online lectures.

Keywords: Online Learning, Perceived Value, Student Satisfaction, WOM

JEL Classification Code: D8, L1, L2, L22

1. Introduction

The COVID-19 pandemic has not ended and this condition has resulted in the Indonesian people, including students and lecturers, living a new or "new normal" life order, by always washing their hands, maintaining a safe distance from others and wearing masks. Higher education institutions

follow government directives to do as stated in the existing regulations, namely, offering online courses to students. Online lectures are indeed one way of learning at the tertiary level in Indonesia, including in Bali during the COVID-19 pandemic and the new normal period, and in the future online lectures will be a good learning method to develop. This learning method is one of the innovative methods (Meyer et al., 2014). Apart from existing regulations, the desire to continue to use online lectures can also be caused by students who feel the benefits of online lectures themselves (Watjatrakul, 2016). Seeing this phenomenon so far, there are still perceptions that are not always positive about online lectures from the point of view of students in Bali.

This negative perception of online lectures shows that the word of mouth (WOM) about online lectures is not optimal. There is relatively little research that discusses WOM from online lectures (Le, 2019; Brecht, 2012; Khor, 2015; Andrea & Lorenz, 2016; Kamboj & Rahman, 2017; Mi & Hongbok, 2018; Alwi et al., 2019). There are social benefits, emotional benefits, and functional benefits of attending online lectures. Rahman et al. (2020) state that positive WOM from online lectures is due to the

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informational benefits and relational benefits. There are similar results Gvili and Levy (2016) and Hassanzadeh et al. (2012). From this research, it can be concluded that the perceived value to students is determined by remaining loyal to online learning methods such as using social media and telling stories about positive things from online lectures. In contrast, Zhao et al. (2016) questioned the benefits of technology-based learning.

Similar results were also shown by Law (2019) who stated that technology-based learning should not be overestimated because technology is only one means of learning and more importantly the sharing of experiences from teachers; if it is exaggerated technology can damage the human element. Likewise, Mora et al. (2020) stated that good learning is better toward education about empathy, understanding of the world, people, and culture. There are also researchers who state that the use of interactions between humans and technology causes dissatisfaction, which has an impact on the intention to reuse (Pereira et al., 2015; Jou et al., 2016).

There is a research gap that needs to be filled about the effect of the benefits of online lectures or technology-based lectures on the desire to continue to use and WOM. The suitable variable to mediate is the student satisfaction variable. The reasons for considering the satisfaction variable as a mediating variable, among others, are because: 1) student satisfaction can create positive WOM about online lectures. If students get satisfaction in taking online lectures, they will become loyal (Kudeshia & Kumar, 2017) in addition; 2) student satisfaction also increases if they get greater benefits. Based on the background of the existing problems, this study aims to explain the role of student satisfaction in mediating the effect of perceived value on WOM.

2. Literature Review

2.1. Perceive Value and Satisfaction

Perceived value is a subjective concept because it varies depending on the different contexts of products known as determinants of consumer behavior (Suki, 2016). Perceived value is the benefit felt by consumers after consuming certain products (Asih et al., 2020). Perceived value has been measured from four dimensions, namely, functional value, conditional value, social value, and emotion value. Watjatrakul (2016) states that the perceived value felt by a consumer is indicated by functional value, emotional value, social value, epistemic value, and conditional value. In this study, the perceived value of online lectures refers to measurements from Hur et al. (2013) and Sangroya and Nayak (2017).

Perceived value is one of the variables that can influence WOM (Zhao et al., 2016; Ilyas et al., 2020). This is supported by Teng et al. (2014) and Mi and Hongbok (2018). The satisfaction felt by online learning users is also determined by the perceived value they get (Diep et al.,

2017). Several studies show the effect of perceived value on satisfaction, such as Wilkins et al. (2016); Martín-Rodríguez et al. (2015). Perceived value felt by students from online learning can increase student satisfaction to continue taking online lectures. The perceived value of the value quality received by users of online learning media will ultimately give satisfaction at the end by using online media (Tran & Le, 2020; Mulyono et al., 2020). The benefits of perceived value and perceived satisfaction give a green color in the use of online media (Juliana et al., 2020).

H1: The higher the perceived value, the higher the positive WOM.

2.2. Perceive Value and WOM

Shin et al. (2014) stated that word of mouth (WOM) appears when consumers are satisfied with the products they have consumed. Furthermore, according to Alwi et al. (2019), WOM is a behavior that always tells about positive things about products that have been consumed. Likewise, Kamboj and Rahman (2017), who conducted research at higher education institutions, stated that WOM was shown to always convey the advantages of the products used, always tell about positive things to others and to also use certain products (Alwi et al., 2019, 2020; Hemsley et al., 2016).

The perceived value felt by students from online learning was able to increase their satisfaction in continuing to attend online lectures (Lee et al., 2018). The same was shown by Lemos and Nueza (2012), which examined the effect of perceived value on student satisfaction. The greater the benefits felt, the more significantly increased the student satisfaction. Likewise, other researchers found that perceived value had a positive and significant effect on student satisfaction (Martín-Rodríguez et al., 2015; Diep et al., 2017; Wilkins et al., 2016).

H2: The higher the perceived value, the more student satisfaction increases.

2.3. Satisfaction and WOM

Customer satisfaction is the feeling of pleasure that is felt because consumers feel that their expectations have been fulfilled by presenting the performance of a product. In the adoption of online lectures, student satisfaction can be influenced by many factors, including the quality of service and the perceived benefits. According to Harrati et al. (2016), a student who takes online lectures where he interacts with technology can also feel satisfaction from the media used, is satisfied because he gets a value that matches what is needed (Ekawati et al., 2020). Alharbi et al. (2014); Appuhamilage and Torii, (2019) said that consumer satisfaction, in this case the satisfaction of students who take online lectures, is influenced

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by a feeling of comfort in using technology in learning media. Research results that are consistent with these conditions have also been studied by Davids et al. (2014); Dreheeb et al. (2016); Christudas et al. (2017); and Abdel-Jaber (2017).

Several studies show the effect of perceived value on satisfaction, including Wilkins et al. (2016); and Martín-Rodríguez et al. (2015). Furthermore, it is satisfaction that determines a WOM increase. If the application of online lectures is able to provide satisfaction to its users, positive WOM will increase (Duarte et al., 2012). The satisfaction obtained by students from online learning can increase positive WOM from online lectures (Jiewanto et al., 2012). The same is also shown by Chandra et al. (2018) in Riau, Indonesia, who examined the effect of service quality on student satisfaction and WOM. The higher the level of satisfaction felt by students leads to a significantly increase of WOM. Likewise, others found that student satisfaction had a positive and significant effect on WOM. Duarte et al. (2012) conducted research in higher education institutions in Portugal and stated that student satisfaction has a positive and significant effect on loyalty, which reflects positive WOM. The same is shown by Wilkins et al. (2016), which examines the effect of satisfaction on WOM. The higher the satisfaction of online college users, the significantly higher the WOM (Shahsavar & Sudzina, 2017). Likewise, other researchers found that satisfaction has a positive and significant effect on WOM (Fernandes et al., 2013; Fares et al., 2013; Chandra et al., 2018).

H3: The higher the student satisfaction, the more WOM increases.

2.4. Perceive Value, Satisfaction and WOM

The same results are also supported by Kudeshia and Kumar (2017). Besides perceived value, WOM is very much determined by the level of satisfaction felt by consumers. Satisfaction of online learning users is an important factor in improving WOM (Chandra et al., 2018). Perceived value felt by students from online learning can increase positive stories about online lectures (Mi & Hongbok, 2018). The same was shown by Teng et al. (2014) who examined the effect of perceived value on WOM. The greater the benefits felt by students, the greater WOM can be. Several researchers found that perceived value has a positive and significant effect on WOM (Kudeshia & Kumar, 2017; Durukan & Bozaci, 2012; Zhao et al., 2016). The perceived satisfaction will provide a good color story from sharing information between individuals and individuals resulting in the sustainable use of online learning (Abdelfattah et al., 2015). Satisfaction is the key to online media sustainability and how the perceived value will be shared from one individual to another (Aichner & Gruber, 2017).

H4: The higher the perceived value and the higher the student satisfaction, the more positive WOM is.

2.5. Research Model

The model demonstrates the sharing of information by word of mouth about perceived satisfaction from perceived value (see Figure 1).
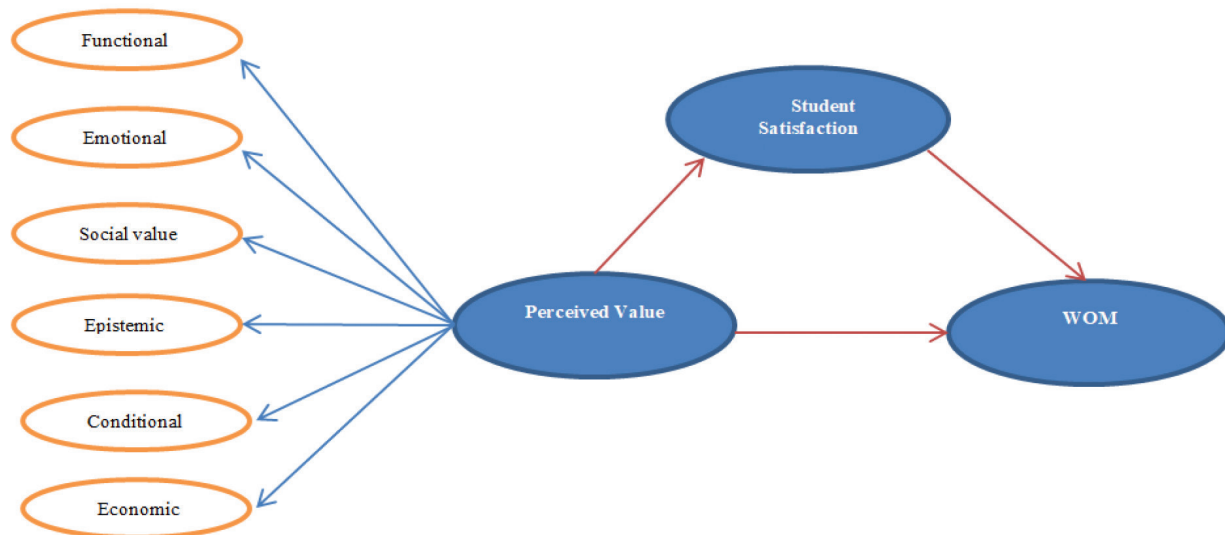

Figure 1: Research Conceptual Framework

3. Research Method

When viewed from the nature of the problem, this research is a type of causality research. This means that this study aims to examine the causal relationship between the variables of perceived value, student satisfaction, and WOM. This research was conducted on students who had attended online lectures during the COVID-19 pandemic in Bali. The size of the sample was 260 respondents taken with purposive sampling technique. Data were collected through distributing questionnaires as a research instrument, which was tested for validity and reliability on a sample of 30 respondents, the results of which are presented in Table 1. The data were then analyzed with the SEM-PLS tool.

4. Results

4.1. Respondent Characteristics

Based on the results of the study, the characteristics of the respondents in terms of gender, age, education level, and college shows that there are more female respondents (160) than male respondents (100). The majority of respondents (205) were aged 18–23. As regards the education level, 20 students have an associate degree, 210 students have a bachelor, 20 have a master, and 10 have a doctorate. Furthermore, 120 students came from state university and 140 people came from private university.

4.2. Convergent Validity

The outer model test is carried out to ensure the research indicators are feasible to use as their role in measuring the research variables, so to see whether a model is valid as the basis for research. Three criteria had to be met, namely, (1) all loading indicators must be above 0.65; (2) composite reliability (CR) must be above 0.8; and (3) average variance extracted (AVE) for each construct must exceed 0.5 (see Table 1).

4.3. Discriminant Validity

To evaluate discriminant validity, a research model is suggested to ensure that the root average variance extracted ($\sqrt{AVE}$) value of a latent variable must be greater (see Table 2).

Discriminant validity is considered good if the root value of AVE ($\sqrt{AVE}$) in Table 3 is greater than 0.5. The research model proposed in this study can be considered good; here the smallest $\sqrt{AVE}$ value is 0.739.

4.4. Inner Model Test

Structural models focus on the hypothesized relation-ships or pathways between latent variables. The results of the inner model test can be seen in Figure 2.

The structural model was evaluated using the R-square for the dependent construct and t-test and the significance of the structural path parameter coefficients.

4.5. Coefficient of Determination (R^2)

In this research, a bootstrap will be carried out which will produce two structural model measurements, namely, the t-test and R^2 values, which will be interpreted the same as multiple regression analysis in general. The predictive power of a research model can be seen by looking at the R^2 value generated by the bootstrapping process; the R^2 value for each exogenous variable contained in the model is presented in Table 4.

Based on Table 4, it can be explained that the highest R^2 value is in the WOM variable of 0.616, which means that as many as 61.60% of the WOM variables can be explained by the constructs contained in the model, namely, perceived value and student satisfaction, while the lowest score is in the student satisfaction variable with 0.518. This means that 51.80% of the student satisfaction variable can be explained by the constructs that affect these variables, namely, perceived value. From the examination of the R^2 value, it can be concluded that in general the predictive ability of this research model is good, seen from all variables that have R^2 values equal to or above 0.50.

4.6. Hypothesis Testing

The significance of the parameters estimated provides very useful information about the relationship between the research variables. The basis used in testing the hypotheses is the value contained in the output path coefficients, which are presented in Table 5.

Hypothesis testing is done using t-statistics and looking at the p-value. If the p-value < 0.05, the hypothesis is accepted. Based on Table 5, it can be explained that the perceived value of WOM has a t-statistical value of 2.395 with a p-value of 0.017 < 0.05, so H1 is accepted. This means that the higher the perceived value, the more positive WOM is about online learning from the perspective of students in Bali. Perceived value on student satisfaction has a t-statistic value of 18.569 with a p-value of 0.000 < 0.05, so H2 is accepted. This means that the higher the level of perceived value those students feel during online lectures, the higher student satisfaction. Student satisfaction with WOM has a t-statistic value of 11.172 with a p-value of 0.000 < 0.05, so H3 is accepted. This means that the higher the level of student satisfaction, the more positive WOM about online lectures. Test of the mediating role of student satisfaction on the effect of perceived value on WOM by examining the indirect effects, which can be explained that the t-statistic value is greater than the t-table value (9.613 > 1.96), then student satisfaction significantly mediates the perceived value of WOM.

Table 1: Results

Construct	Dimension	Indicator	Outer Loading	Composite Reliability	Average Variance Extracted (AVE)
Perceived value	Functional value	X1.1	0.849	0.928	0.720
		X1.2	0.869		
		X1.3	0.877		
		X1.4	0.816		
		X1.5	0.831		
	Emotional value	X2.1	0.978	0.981	0.945
		X2.2	0.966		
		X2.3	0.971		
	Social value	X3.1	0.923	0.926	0.807
		X3.2	0.888		
		X3.3	0.884		
	Epistemic value	X4.1	0.863	0.923	0.800
		X4.2	0.903		
		X4.3	0.917		
	Conditional value	X5.1	0.861	0.913	0.778
		X5.2	0.885		
		X5.3	0.900		
	Economic value	X6.1	0.913	0.917	0.847
		X6.2	0.928		
Satisfaction		Y1.1	0.927	0.952	0.867
		Y1.2	0.918		
		Y1.3	0.949		
WOM		Y2.1	0.893	0.937	0.788
		Y2.2	0.851		
		Y2.3	0.898		
		Y2.4	0.907		

Table 2: Correlation Between Latent Variables

Construct	Perceived Value	Satisfaction	WOM
Perceived Value	1.000		
Student Satisfaction	0.720	1.000	
WOM	0.632	0.778	1.000

Table 3: AVE Square Root Value

Construct	Average Variance Extracted (AVE)	AVE Square Root Value
Perceived Value	0.545	0.739
Student Satisfaction	0.867	0.931
WOM	0.788	0.888

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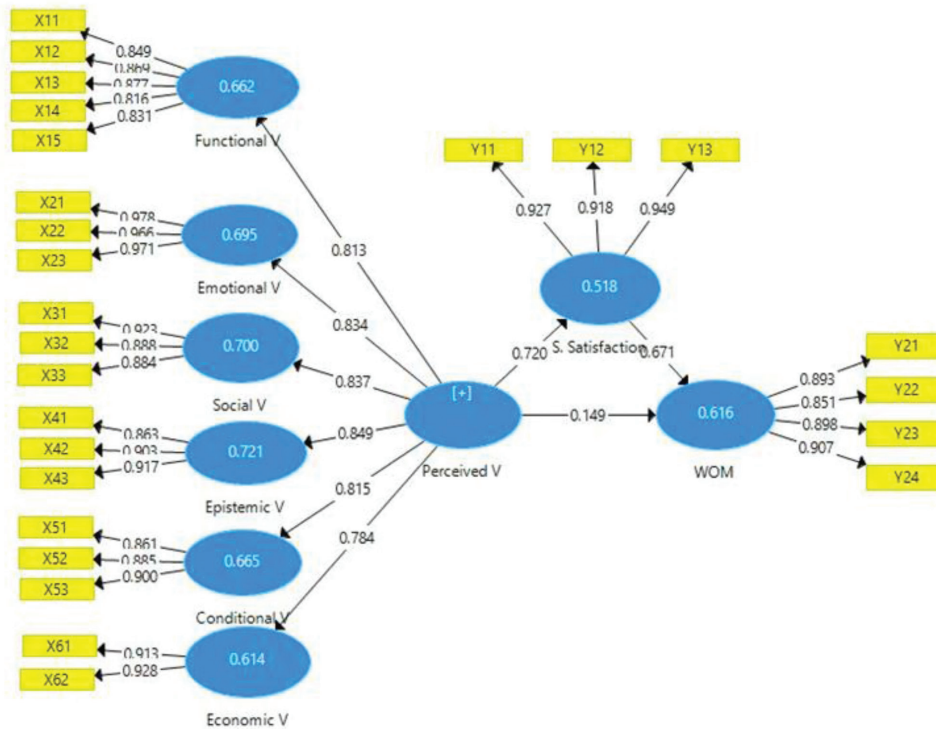
Figure 2: Structural Model

Table 4: Coefficient of Determination

Construct	R^2
Student Satisfaction	0.518
WOM	0.616

Note: only the endogenous (dependent) variable has a value of R^2.

5. Discussion

5.1. Effect of Perceived Value on WOM

Based on the results of the analysis of the effect of perceived value on WOM, the beta coefficient value is 0.149 with a significance level of $0.017 \leq 0.05$, which means that Ho is rejected and H1 is accepted. These results mean, the variable perceived value has a positive and significant effect on WOM. So, the higher the value perceived by students in Bali as indicated by getting functional values, emotional values, social values, epistemic values, conditional values, and economic values, the more positive WOM is.

The results of this study at the same time strengthen the results of previous studies (Durukan & Bozaci, 2012; Hur et al., 2013; Gvili & Levy, 2016; Diep et al., 2017; Chandra et al., 2018), which state that the variable perceived value

has a positive and significant effect on WOM. This result is reinforced by Mi and Hongbok (2018) who found the results of the variable perceived value have a positive and significant effect on WOM so that it can be concluded that perceived value has a positive and significant effect on WOM. This means, with the increasing value perceived by students in Bali who take online lectures are able to increase positive WOM about online lectures.

5.2. Effect of Perceived Value on Student Satisfaction

Based on the results of the analysis of the effect of perceived value on student satisfaction, the beta coefficient value is 0.720 with a significance level of $0.000 \leq 0.05$, which means that Ho is rejected and H2 is accepted. These results mean, the variable perceived value has a positive and significant effect on student satisfaction. This means that, the more the perceived value increases, the more student satisfaction increases.

The results of this study also strengthen the results of previous studies conducted by Lee et al. (2018); Lemos and Nueza (2012); Martín-Rodríguez et al. (2015), which states that perceived value plays an important role in increasing student satisfaction. Similar results have also been obtained previously by Jiewanto et al. (2012), stating that the variable

Table 5: Path Coefficient

Correlation Between Variables	Path Coef.	*t*-statistic	*P*-values	Information
$PV \rightarrow$ WOM	0.149	2.395	0.017	Accepted
$PV \rightarrow$ SS	0.720	18.569	0.000	Accepted
SS $\rightarrow$ WOM	0.671	11.172	0.000	Accepted
PV (X) $\rightarrow$ SS (Y1) $\rightarrow$ WOM (Y2)	0.483	9.613	0.000	Accepted

perceived value has a significant effect on student satisfaction. The results of this study are also confirmed by Fares et al. (2013), who found that the perceived value variable has a positive and significant effect on the satisfaction variable. It can be concluded that the perceived value has a positive and significant effect on student satisfaction, this means, the higher the perceived value perceived by students, the higher the student satisfaction in attending online lectures.

5.3. The Effect of Student Satisfaction on WOM

Based on the results of the analysis of the effect of student satisfaction on WOM, the beta coefficient value is 0.671 with a significance level of 0.000 ≤ 0.05), which means that H0 is rejected and H3 is accepted. These results mean that student satisfaction has a positive and significant effect on WOM. This means, the higher the satisfaction felt by students in Bali in taking online lectures, the more positive WOM is about online lectures.

The results of this study at the same time strengthen the results of previous research conducted by Andre and Lorenz (2016); Pereira et al. (2015) stating that customer satisfaction can increase WOM. Zhao et al. (2016) show that student satisfaction being able to make WOM about online lectures always positive. Dreheeb et al. (2016) found that student satisfaction has a positive effect on positive WOM. This result is also reinforced by Setini et al. (2020) who found that student satisfaction has a positive and significant effect on WOM. The influence of perceptions about consumer satisfaction has an impact on higher education institutions to increase positive stories from online lectures. It can be concluded that student satisfaction has a positive and significant effect on WOM; this means that the higher the level of student satisfaction in taking online lectures, the more positive WOM increases.

5.4. The Role of Student Satisfaction Mediates the Effect of Perceived Value on WOM

Student satisfaction, which is indicated by feeling that their hopes were achieved when attending online lectures, feeling that online lecture performance is in accordance with what is needed, being satisfied with online course material, and being overall satisfied have been shown to have a positive and significant effect on WOM. Likewise, the perceived value obtained includes functional value, emotional value, social value, epistemic value, conditional value, and economic value, which have a positive and significant effect on WOM. Based on hypothesis testing on the role of student satisfaction mediating the effect of perceived value on WOM is accepted with a total effect value of 0.483. This implies that student satisfaction can strengthen the effect of perceived value on WOM.

6. Conclusion

The results of this study are: 1) Perceived value has a positive and significant effect on WOM. This result means that, the higher the perceived value obtained by students, the higher the positive WOM about online lectures; 2) Perceived value has a positive and significant effect on student satisfaction. This result means that, the higher the perceived value obtained by students who use online lectures, the more their satisfaction increases; 3) Student satisfaction has a positive and significant effect on WOM. This result means that, the higher student satisfaction, the more positive WOM about online lectures; 4) Student satisfaction significantly mediates the perceived value of WOM. The mediation that occurs in this research model is partial. In other words, the satisfaction variable serves to bridge the effect of perceived value on WOM, but due to partial mediation, without student satisfaction, perceived value is still able to have a positive and significant effect on WOM. This result means that if the perceived value of online lectures is further improved, it will be able to increase student satisfaction, and in the end build positive WOM about online lectures.

This study can enrich the concept of perceived value and WOM by considering the consumer satisfaction variable as a mediating variable. Likewise for higher education institutions in Bali in the future it is necessary to increase the benefits felt by students in using online lectures, especially in increasing the functional benefits of online lectures. This research was only conducted on students who used online lectures in Bali, so the results of the study could not be generalized to different regions. Likewise, the mediation

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variable used is only the student satisfaction variable, while there are still many alternative mediation variables, so that in the future it is necessary to consider other mediation variables, such as student commitment, student trust, and student experience. In addition, it can also consider the ability of the Internet to moderate the relationship between perceived value and WOM. This study also only examines the adoption of online lectures from a student perspective, and it can still be developed to research online lectures from a lecturer perspective because those involved in the adoption of online lectures are students and lecturers.

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