

# Technology Acceptance Model To Analyze Satisfaction And Loyalty Of Users Of Satuguru Blockchain-Based Online Media Platform

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## Abstract.

To find out user responses to the Satuguru Platform. One method that can facilitate this need is to use the method Technology Acceptance Model (TAM). The phenomenon that occurs with the loyalty of Satuguru users is quite a lot of users move to another platform. In this research, Technology Acceptance Model (TAM) will be used to understand how users accept and adopt new technologies, especially in terms of security and content with Blockchain. This study aims to determine and analyze the effect of perceived usefulness and perceived ease of use on loyalty mediated by user satisfaction on the Satuguru Blockchain-based online media platform. The method used in this research is quantitative with a descriptive approach. The sample of this research is 140 respondents selected by customers who are users of the Satuguru Blockchain-based Online media platform. The data collection method uses a questionnaire that has been tested for validity and reliability. This study uses the SmartPLS 3 software method. The results of the study show that there is a direct or indirect influence on perceived usefulness and perceived ease of use on loyalty mediated by user satisfaction on the Satuguru Blockchain-based Online media platform.

**Keywords:** Perceived Usefulness, Perceived Ease Of Use, Satisfaction and Blockchain Loyalty.

## I. INTRODUCTION

The industrial revolution 4.0 is often referred to as a cyber physical system. This revolution focuses on automation and collaboration with cyber technology. The main characteristic of this industrial revolution is the incorporation of information and communication technology in the industrial sector. The emergence of the industrial revolution caused changes in various sectors. If previously it required quite a lot of workers, now everything can be replaced by the use of technological machines. This communication interaction influences the formation of knowledge management 4.0, which aims to better integrate manufacturing and industrial processes by providing facilities for more efficient productivity, lower costs, precision in manufacturing, and massive scalability through automation. (Purba et al, 2021) Customer loyalty is a commitment to survive to re-subscribe or re-purchase a product or service in the future (Haq et al., 2022). Bhattacharjee et al., (2018) said that loyalty is divided into two different types, namely customer behavior and customer attitudes. Loyalty describes a person's behavior towards certain products or services as indicated by buying behavior (Babin et al., 2015). If customer satisfaction is an attitude, customer loyalty can be defined based on the behavior of service users. The phenomenon that occurs with the loyalty of Satuguru users is quite a lot of users move to another Platform. This is reflected based on fixed and non-permanent user data in Table 1

**Table 1.** Regular users of Satuguru and moved from Satuguru

Period	User	Still	Move	Still	Move
2022	3,032	2,122	910	70.0%	30.0%
2023	2,714	1632	1082	60.1%	39.9%

Source: Satuguru (2023)

Data Table 1 shows that there is still great loyalty from Satuguru users, but when compared between years it has decreased quite drastically from 70% in 2022 to 60% in 2023. Data on the decline in regular users and satisfaction is very useful for management as the basis for evaluation. But of course it needs to be supported with more comprehensive data, through a systematic data collection process, especially to find out user responses to the Satuguru Platform. One method that can facilitate this need is to use the Technology Acceptance Model (TAM) method. To increase the satisfaction and loyalty of online media users, a platform

is needed, namely Satuguru, one of which is the convenience and benefits of the platform. In this research, the Technology Acceptance Model (TAM) will be used to understand how users accept and adopt new technologies, especially in terms of security and content with Blockchain. In the context of Blockchain, users must see the benefits and value of this technology. They will be more likely to adopt Blockchain if they believe that this technology provides a better solution or benefit compared to traditional solutions or other technologies. Blockchain implementation can be complex and technical, especially for users who are not experienced with the technology. Therefore, Based on the explanation above, there is a desire to conduct research by analyzing the Technology Acceptance Model to Analyze Satisfaction and Loyalty of Users of the Satuguru Blockchain-Based Online Media Platform.

## II. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### **TPB theory**

*Theory of Planned Behavior* (TPB) explains that consumer behavior is shaped by attitudes, subjective norms, and perceived behavioral control (PBC) that shape intentions. Intention then influences how a person's behavior. This theory forms the basis of the current study that analyzes the effect of intention on online buying behavior. This model was developed by Icek Ajzen to enhance the predictive power of Theory of Reasoned Action (TRA), by adding the PBC variable.

### **Technology Acceptance Model (TAM)**

According to Davis, (1989) the main purpose of TAM is to provide a reference for analyzing external influences in the form of user beliefs, intentions and goals. TAM has two dominant factors that influence their acceptance of information technology. First, the user's perception of the perceived benefits of using technology, and secondly, the user's perception of the perceived ease of use of technology. information.

### **Blockchains**

The history of Blockchain itself began in 2008, where an individual or group by the name of Satoshi Nakamoto published a paper entitled "Bitcoin: A Peer-To-Peer Electronic Cash System". This paper describes a peer-to-peer version of electronic money that allows Online payments to be sent directly from one party to another without going through a financial institution. Bitcoin is the first realization of this concept. Today the word "cryptocurrencies" is used to describe all networks and exchange media that use cryptography to secure transactions, as opposed to systems where transactions are carried out through a centralized entity. (Crosby et al, 2015)

### **Perceived Usefulness**

According to (Triani, 2016) Perceived usefulness is defined as the level at which a person believes that using a particular system can improve his performance. Perceived usefulness is a thought regarding the use of information technology to improve performance and provide benefits for users (Andriyano & Rahmawati, 2016).

### **Perceived Ease Of Use**

Hinati (2019) states that convenience is a person's feeling when he can easily complete a job because he uses a system or technology. Musfiroh (2019) explains that convenience is a person's belief in choosing from several options in a decision regarding difficulties in using information technology.

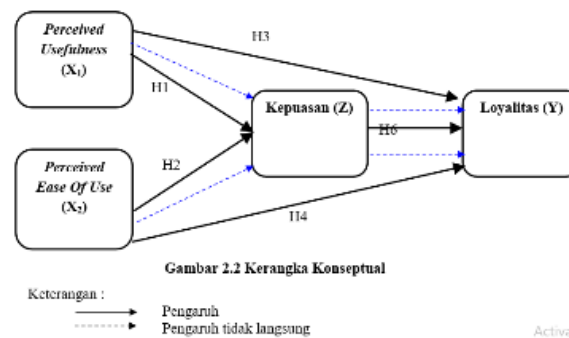
### **Satisfaction**

Satisfaction is a determinant of brand loyalty/with increased fulfillment results in increased loyalty. Alfakih et al. (2022) Satisfaction is a direct measure and is widely used to diagnose the conditions of use of a particular product. Since this is not directly observed, consumers are asked about their level of satisfaction with a product, with answers given on a Likert or interval scale in a survey questionnaire. (Kwon et al. 2020)

### **Loyalty**

According to Windana et al., (2022) User loyalty is an important thing that must be maintained by the company for the sustainability of the company and can improve good relations between service providers and their users. Loyalty is used in a business context, to describe the willingness of users to always use the company's products in the long term, especially if they use them exclusively, and recommend the company's products to friends and colleagues. In this study there is a direct effect of the return on assets variable, debt to

equity ratio and company growth on the variable dividend payout ratio, there is a direct effect on the variable return on assets, debt to equity ratio, company growth and dividend payout ratio on stock prices and there is an indirect effect on the variable return on assets, debt to equity ratio, and the company's growth to the variable stock price through the variable dividend payout ratio. In accordance with the research topic, the variables of this study use a structural model, that is, if each dependent variable is determined by a set of independent variables. The following is the conceptual framework of the research as follows:



## Research Model Development

### The effect of perceived usefulness on customer satisfaction

*Perceived usefulness* is a measure where the use of a technology is believed to bring benefits to the people who use it (Wibowo, 2016). Previous studies have shown that perceived usefulness has a positive and significant effect on customer satisfaction. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017) And Wilson et al., (2023) which says there is an effect of perceived usefulness on customer satisfaction

### The effect of perceived ease of use on customer satisfaction

*Perceived ease of use* defined as the extent to which a person believes that using a particular system will be free of effort. The benefits of perceived use are factors that influence acceptance in using new technology. Previous studies have shown that perceived ease of use will create a positive impact on customers and lead to customer satisfaction. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017), Haq et al., (2022), Apriliani & Widodo, (2023) And Wilson et al., (2023) that said there was influence *perceived ease of use* on customer satisfaction

### The effect of perceived usefulness on customer loyalty

The benefit of the application is one way to speed up work because all work is done in an organized manner. According to (Jagiyanto, 2019: 933) Perceived benefits mean the extent to which a person believes that using a particular technology will improve his job performance. Someone will use a technology if the technology can provide benefits to users. If someone feels confident that a technology is useful then he will use it. Conversely, if the technology is less useful then it will not use it. Someone will also use a technology if they know the positive benefits for its users (Ernawati & Noersanti, 2020). This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Kungumapriya & Malarmathi, (2018), Marso, (2023) And Wilson et al., (2023) which says there is an effect of perceived usefulness on customer loyalty

### The effect of perceived ease of use on customer loyalty

Ease of use is how far a person believes he will be limited from effort when using technology. According to (Jogiyanto, 2016: 134) perceived ease is a belief in the decision-making process. If someone feels confident that the information system is easy to use or not difficult to understand then he will use it. Conversely, if someone believes that the information system is not easy to use or difficult to understand then that person will not use it. Online media systems using digital applications provide many conveniences for its users. Digital application systems that are easy to understand and operate and can be used to carry out various types of business activities will provide greater benefits for users of digital applications. In the long

term, the convenience felt by users has an impact on the loyalty (user loyalty) of a digital application (Sambaiah and Reddy, 2019). The results of previous studies provide clear evidence of the effect of ease of use on user loyalty. This shows that the easier an application to use can significantly increase user loyalty. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Haq et al., (2022), Marso, (2023) And Wilson et al., (2023) that said there was influence *perceived ease of use* on customer loyalty

#### **Effect of customer satisfaction on customer loyalty**

According to Kotler (2014) consumer satisfaction is a person's feeling of pleasure or disappointment that comes from a comparison between his impression of the performance (outcome) of a product with his expectations. From the definition above, it can be interpreted that satisfaction is a comparison between the services or results received by consumers and consumer expectations, where the services or results received are at least the same as consumer expectations or can even exceed them. Satisfaction is an attitude that combines satisfaction with product or service attributes (Surprenant, 2015). Satisfied customers will be loyal for a long time, buy new products offered by the company, provide good information about the company and its products to others, customers ignore competing companies and do not really care about prices (Kotler & Keller, 2016). This is supported by previous research conducted by Harianto & Ellyawati, (2023), Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017), Haq et al., (2022), Apriliani & Widodo, (2023), Daud et al., (2018) And Wilson et al., (2023) which says there is an effect of satisfaction on customer loyalty

#### **The effect of perceived usefulness on customer loyalty through customer satisfaction as an intervening variable**

The benefit of the application is one way to speed up work because all work is done in an organized manner. According to (Jagiyanto, 2019: 933) Perceived benefit is the extent to which a person believes that using a particular technology will improve his job performance. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022) And Wilson et al., (2023) which says there is an effect of perceived usefulness on customer loyalty through customer satisfaction as an intervening variable

#### **The effect of perceived ease of use on customer loyalty through customer satisfaction as an intervening variable**

According to Davis (1989) ease of use means the extent to which a person will feel confident when using technology that is easy and does not require much effort. Ease also refers to an opinion about a process that leads to an end result. Ease of use refers to the ease of interaction with technology systems, the ease of use of technology systems to perform actions taken, the effort required to interact with the system and the ease of use. Convenience is one of the factors that influence customer satisfaction. If the services provided by the company are easier to use without any difficulties, then the opportunity to get satisfied customers will be even greater. And if the company has got satisfied customers, it will be easier to achieve customer loyalty. Results of previous studies conducted Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Daud et al., (2018) And (Wilson et al., 2021) explain supports that *perceived ease of use* has a positive and significant influence on customer loyalty through customer satisfaction variables

### **III. METHODS**

#### **POPULATION AND SAMPLE**

The survey method is a method used by researchers to collect survey data. (Sugiyono, 2019). states that the research method is basically a scientific method to obtain data with specific aims and objectives. The scientific method means scientific characteristics, namely rational, empirical and systematic research activities. The survey method reveals the significant impact of the surveyed variables in order to test the descriptions of the surveyed subjects and draw conclusions. Population is a complete collection of objects of interest to researchers. My research subjects include organisms, objects, systems and processes, and phenomena (Sugiyono, 2018). The general population in this study is an infinite number of users. The target group in this study are users of the Satuguru Blockchain-based online media platform. According to

Ferdinand (2016: 51) suggests that sample size depends on the number of indicators used in all variables. The number of samples is equal to the number of indicators multiplied by 5 to 10. In this study the number of variables studied was four variables, so that the total number of indicators or indicators is 14 indicators. With the following calculations:

$$\begin{aligned} n &= (5 \text{ to } 10 \times \text{Number of indicators}) \\ &= 10 \times 14 \text{ indicators} \\ &= 140 \text{ respondents} \end{aligned}$$

So that the minimum sample size in this study was 140 respondents. The number of samples based on the opinion of Gay and Roscoe argues that for comparative research a sample size of more than 30 and less than 500 respondents is the place for most research (Kuncoro, 2013). The sampling technique used in this study used a purposive sampling technique. Purposive sampling is a sampling technique with certain considerations in Sugiyono, (2016: 85). The reason for using this purposive sampling technique is because it is suitable for use in quantitative research, or studies that do not generalize according to Sugiyono, (2016: 85).

Where the respondents interviewed in this study were customers of Satuguru Online Media with the following considerations:

1. Age over 25 years. This age is an adult and already has a KTP. Respondents are expected to be able to objectively assess the statements made in the questionnaire regarding survey variables.
2. The selected respondents are regular customers who use Satuguru Online Media

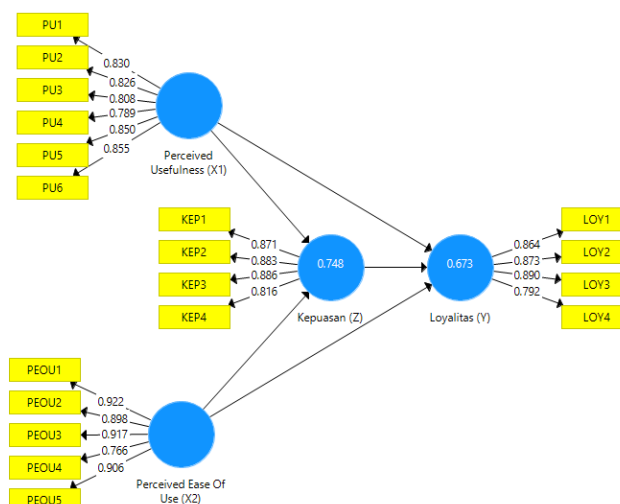
#### Data analysis method

Statistical analysis of survey data uses path analysis to identify direct and indirect effects between variables. Researchers used path analysis in this study because path analysis allows researchers to test theoretical statements about causality. Since the analysis is carried out using correlation and regression, we know that we need to go through direct paths or interventions to reach the final dependent variable. Because each variable in the model is the dependent (responder) variable and the other variables are causative, the model is represented as circles and arrows, with one arrow indicating the cause. In this study, data management was carried out using SPSS Ver. 26 To test the hypothesis, use SmartPLS 3 to test classical assumptions and path analysis in SEMPLS.

## IV. RESULTS AND DISCUSSION

### Inferential Statistics

Inferential statistics aims to draw conclusions about the population based on the collected sample data contained in the respondents. Inferential statistics in this study use Partial Least Square - Structural Equation Modeling or abbreviated as a word, namely PLS-SEM and starts from evaluating the outer model, evaluating the structural model (inner example) & testing hypotheses & assisted by the SmartPLS application.



**Table 4.7.** Loading Factor Value

	<b>Satisfaction (Z)</b>	<b>Loyalty (Y)</b>	<b>Perceived Ease Of Use(X2)</b>	<b>Perceived Usefulness(X1)</b>
KEP1	0.871			
KEP2	0.883			
KEP3	0.886			
KEP4	0.816			
LOY1		0.864		
LOY2		0.873		
LOY3		0.890		
LOY4		0.792		
PEOU1			0.922	
PEOU2			0.898	
PEOU3			0.917	
PEOU4			0.766	
PEOU5			0.906	
PU1				0.830
PU2				0.826
PU3				0.808
PU4				0.789
PU5				0.850
PU6				0.855

Source: Primary Data Processing (2023)

From Table 4.7, it can be seen that for all the variables contained in the loading factor value exceeds above the average of 0.7 this shows that all indicators are valid because  $> 0.70$ .

**Table 4.8.** PenCross Loading test

	<b>Satisfaction (Z)</b>	<b>Loyalty (Y)</b>	<b>Perceived Ease Of Use(X2)</b>	<b>Perceived Usefulness(X1)</b>
<b>KEP1</b>	0.871	0.631	0.768	0.705
<b>KEP2</b>	0.883	0.736	0.687	0.715
<b>KEP3</b>	0.886	0.766	0.778	0.704
<b>KEP4</b>	0.816	0.608	0.640	0.637
<b>LOY1</b>	0.728	0.864	0.611	0.646
<b>LOY2</b>	0.598	0.873	0.593	0.536
<b>LOY3</b>	0.750	0.890	0.646	0.670
<b>LOY4</b>	0.632	0.792	0.742	0.617
<b>PEOU1</b>	0.807	0.736	0.922	0.709
<b>PEOU2</b>	0.758	0.735	0.898	0.703
<b>PEOU3</b>	0.728	0.644	0.917	0.707
<b>PEOU4</b>	0.668	0.594	0.766	0.665
<b>PEOU5</b>	0.707	0.631	0.906	0.691
<b>PU1</b>	0.699	0.699	0.674	0.830
<b>PU2</b>	0.682	0.525	0.656	0.826
<b>PU3</b>	0.659	0.497	0.574	0.808
<b>PU4</b>	0.545	0.699	0.591	0.789
<b>PU5</b>	0.698	0.578	0.677	0.850
<b>PU6</b>	0.677	0.586	0.720	0.855

Source: Primary Data Processing (2023)

Based on Table 4.8, it can be found that the correlation of each item to its own variable has a greater value than the item correlation to other variables. Therefore, all items are categorized according to the rule of thumb for discriminant validity testing so that the data can be analyzed further. The next criterion to test discriminant validity is to look at the Fornell and Larcker Criterion and Heterotrait-Monotrait (HTMT) values which must be lower than 0.8. The results of the discriminant validity test with the Fornell and Larcker Criterion are shown in Table 4.9.

**Table 4.9.** Actual Discriminant Validity Test Results – Fornell and Larcker criterion

	<b>Satisfaction (Z)</b>	<b>Loyalty (Y)</b>	<b>Perceived Ease Of Use (X2)</b>	<b>Perceived Usefulness (X1)</b>
<b>Satisfaction (Z)</b>	<b>0.864</b>			
<b>Loyalty (Y)</b>	0.797	<b>0.855</b>		
<b>PerceivedEase Of Use (X2)</b>	0.833	0.760	<b>0.884</b>	
<b>PerceivedUsefulness (X1)</b>	0.799	0.726	0.786	<b>0.827</b>

Source: Primary Data Processing (2023)

Table 4.9 shows that the value of the Fornell Larcker Criterion discriminant validity test for all constructs is more than 0.70, with this each variable can be categorized as a valid discriminant. The next criterion in the discriminant validity test is to look at the Heterotrait-Monotrait Ratio (HTMT) value using the maximum HTMT value limit which is 0.95. The results of the Heterotrait-Monotrait discriminant validity test can be reviewed in Table 4.10.

**Table 4.10.** Actual Discriminant Validity Test Results - Heterotrait -Monotrait

	<b>Satisfaction (Z)</b>	<b>Loyalty (Y)</b>	<b>Perceived Ease Of Use (X2)</b>	<b>Perceived Usefulness (X1)</b>
<b>Satisfaction (Z)</b>				
<b>Loyalty (Y)</b>	0.894			
<b>PerceivedEase Of Use (X2)</b>	0.914	0.837		
<b>PerceivedUsefulness (X1)</b>	0.889	0.806	0.857	

Source: Primary Data Processing (2023)

Dari Table 4.10 can be seen for the HTMT value for each variable is below 0.95 meaning that the indicators are right for testing each construct

### Reliability Test Results

The results of the reliability test contained in this study can be carried out in data based on 140 respondents using the SmartPLS 3.3.9 implementation. This test uses analysis of cronbach alpha (CA) and composite reliability (CR) values. The rule of thumb for good CA and CR values is  $\geq 0.6$  and  $0.7$ , so this study uses these values as indicators or so that these variables can be said to be reliable. The results of the preliminary reliability test for each research variable can be observed in Table 4.11.

**Table 4.11.** Markcronbahch alpha and composite reliability

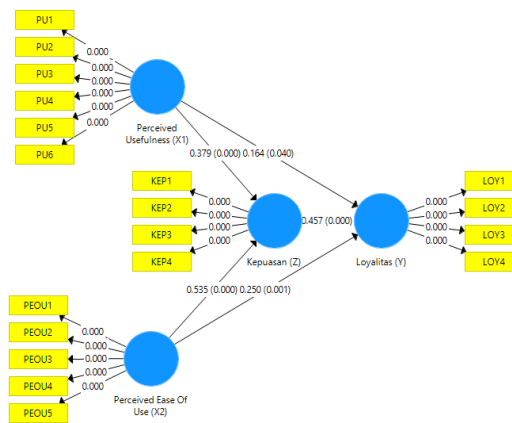
	<b>Cronbach's Alpha</b>	<b>Composite reliability</b>
<b>Satisfaction (Z)</b>	0.887	0.922
<b>Loyalty (Y)</b>	0.877	0.916
<b>PerceivedEase Of Use (X2)</b>	0.929	0.947
<b>PerceivedUsefulness (X1)</b>	0.907	0.928

Source: Primary Data Processing (2023)

Based on Table 4.11 it can be concluded that the CA and CR values, it can be seen that all CA and CR values also have a value greater than 0.6 and 0.7. These values indicate that all variables have reliability that fits the criteria as well. Therefore, it can be concluded that all items and variables from the sample are in accordance with the criteria in terms of validity and reliability tests so that they can be analyzed further in the structural model evaluation.

### Structural Model Analysis

In the structural model (Inner Model) is a model that can prove from an interaction on causality which refers to latent variables. In this study, structural samples can be assessed using the coefficient of determination test ( $R^2$ ) & multicollinearity test. The following is a path diagram display (example path) using PLS Bootstrapping calculations. The test results can be reviewed in Figure 4.3.



**Fig 4.2.** Path Models

Source: Primary Data Processing (2023)

Based on Ghozali and Latan (2015), the inner model is a structural model by describing the causal relationship between variables on the basis of existing theory. The inner model will carry out an analysis where the causality relationship between variables will be examined. In this section several things that will be tested are VIF or multicollinearity, coefficient of determination or R-Square (R<sup>2</sup>), effect size (f<sup>2</sup>), predictive value (Q<sup>2</sup>), T-Statistics, indirect effects.

**uji Collinearity**

Testi Collinearity aims to ensure that there are no independent variables that are interconnected. According to Hair et al. (2019), a good VIF value must be close to 3 or lower. Meanwhile, according to Ghozali and Latan (2015), the collinearity test is recommended to get a value below number 5. If the independent variable gets a value above number 5, there may be a problem with the research model being made.

**Table 4.12.** Collinearity Test Results (VIF)

	<b>Satisfaction (Z)</b>	<b>Loyalty (Y)</b>	<b>Perceived Ease Of Use (X2)</b>	<b>Perceived Usefulness (X1)</b>
<b>Satisfaction (Z)</b>		3,975		
<b>Loyalty (Y)</b>				
<b>Perceived Ease Of Use(X2)</b>	2,621	3,759		
<b>Perceived Usefulness(X1)</b>	2,621	3,191		

Source: Primary Data Processing (2023)

Table 4.12 shows that all variables get scores below number 5. It can be concluded that there is no problem between each variable

**R-Square**

Meaccording to Hair et al. (2019) the R<sup>2</sup> or R-Square test is a way to find out how much the percentage of endogenous constructs can be explained by their exogenous constructs. The coefficient of determination (R<sup>2</sup>) is expected to be between 0 and 1. The R<sup>2</sup> values are 0.75, 0.50 and 0.25, it is known that the model is strong, moderate and weak.

**Table 4.13.** R-Square Test Results (R<sup>2</sup>)

	<b>R Square</b>	<b>R Square Adjusted</b>
<b>Satisfaction (Z)</b>	0.748	0.745
<b>Loyalty (Y)</b>	0.673	0.666

Source: Primary Data Processing (2023)

PaFrom Table 4.13, it can be seen that both the variables perceived usefulness and perceived ease of use on customer satisfaction have a large R<sup>2</sup> value, the R<sup>2</sup> value is 0.748 with an Adjusted R<sup>2</sup> value of 0.745 indicating that the variables perceived usefulness and perceived ease of use on customer satisfaction are 74.8 % while the rest is the influence of other variables not used in this study. VaThe variable perceived usefulness, perceived ease of use and satisfaction with customer loyalty has an R<sup>2</sup> value with a large R<sup>2</sup> value of 0.673 with an Adjusted R<sup>2</sup> value of 0.666 indicating that the variables perceived usefulness,



perceived ease of use and satisfaction with customer loyalty are 67.3% while the rest are the influence of other variables that are not used in this study.

### Effect Size Test

The next step is testing the effect size or  $f^2$ . This test is used to simultaneously see the effect of the independent variables on the dependent variable. According to Ghazali and Latan (2015), the small  $f^2$  value is 0.02, the medium is 0.15, and the large is 0.35. Values less than 0.02 can be ignored or considered ineffective.

**Table 4.14.** Effect Size Test Results ( $f^2$ )

	Satisfaction (Z)	Loyalty (Y)	Perceived Ease Of Use (X2)	Perceived Usefulness (X1)
Satisfaction (Z)		0.161		
Loyalty (Y)				
Perceived Ease Of Use (X2)	0.434	0.051		
Perceived Usefulness (X1)	0.217	0.026		

Source: Primary Data Processing (2023)

From Table 4.14, it can be seen that the influence of the largest independent variable is on perceived usefulness on customer satisfaction with a value of 0.434 which means it has a large effect. Meanwhile, the smallest effect on customer loyalty is perceived usefulness with a value of 0.026 which means it has little effect.

### uji Q2

Setelah test  $R^2$  and  $f^2$ , the next test is the Q2 test. Q2 is one of the metrics used to assess the predictive quality of a model. This test uses blindfolding on PLS for processing. The purpose of using blindfolding in this test is to remove one point from the data matrix and connect the points removed with the average and estimated model parameters (Sarstedt, Ringle, & Hair, 2017). That way the results obtained are a mixture of predictions outside the sample and samples in the explanatory. According to Ghazali and Latan (2015) the Q2 value must be greater than 0 where the applicable rule of thumb is 0, 0.25, and 0.50. This number is defined as small, moderate, and large predictive relevance.

**Table 4.15.** Q2 Test Results

	SSO	SSE	Q <sup>2</sup> (=1-SSE/SSO)
Satisfaction (Z)	560,000	252,456	0.549
Loyalty (Y)	560,000	291,407	0.480
Perceived Ease Of Use (X2)	700,000	700,000	
Perceived Usefulness (X1)	840,000	840,000	

Source: Primary Data Processing (2023)

From Table 4.15 it can be seen that the Q2 value of the dependent variable, namely customer satisfaction, is 0.480, which means that the predictive relevance is moderate, as well as the effect on customer loyalty with a Q2 value of 0.480, which means that the predictive relevance is moderate.

### Hypothesis test

In the research data, this hypothesis test can be carried out by means of hypothesis testing on the direct effect, where the variables Perceived usefulness, Perceived ease of use, and price are hypothesized to have a direct effect on customer loyalty. This hypothesis test is carried out by looking at the values of the t-statistic data contained in the Path Coefficient Table and the data on the t-statistic must be more than 1.96 (Appendix Table t) for the one-tailed test hypothesis with a significance level of 0, 05. Based on the bootstrapping calculation results using the SmartPLS application, the values in the t-statistic data and path coefficient can be observed in Table 4.16.

**Table 4.16.** Path Coefficients (Direct Influence)

	Original Sample (O)	T Statistics ( O/STDEV )	P Values
Perceived Usefulness (X1) -> Satisfaction (Z)	0.379	4,387	0.000
Perceived Ease Of Use (X2) -> Satisfaction (Z)	0.535	6,507	0.000
Perceived Usefulness (X1) ->	0.164	2,057	0.040

<b>Loyalty (Y)</b>			
<b>Perceived Ease Of Use(X2) -&gt; Loyalty (Y)</b>	0.250	3,314	<b>0.001</b>
<b>Satisfaction (Z) -&gt; Loyalty (Y)</b>	0.457	5.105	<b>0.000</b>

Source: Primary Data Processing (2023)

Based on Table 4.16. above shows that of the five hypotheses that have a direct effect, there are 5 (five) hypotheses accepted because of value  $T\text{-Statistics} > 1.96 P\text{-Values} < 0.05$  which means there is a significant and direct positive direct effect.

**Table 4.17. Path Coefficients (Pindirect influence)**

	<b>Original Sample (O)</b>	<b>T Statistics ( O/STDEV )</b>	<b>P Values</b>
<b>Perceived Usefulness (X1) -&gt; Satisfaction (Z) -&gt; Loyalty (Y)</b>	0.173	3,566	<b>0.000</b>
<b>Perceived Ease Of Use (X2) -&gt; Satisfaction (Z) -&gt; Loyalty (Y)</b>	0.245	3,882	<b>0.000</b>

Source: Primary Data Processing (2023)

**Discussion**

**Table 4.18. Summary of Research Hypothesis Results**

Independent Variables - Bound	Results	Significance
1. <i>Perceived Usefulness</i> -Customer satisfaction	Significant	0.000< 0.05
2. <i>Perceived ease of use</i> - Customer satisfaction	Significant	0.000<0.05
3. <i>Perceived Usefulness</i> - Customer loyalty	Significant	0.040< 0.05
4. <i>Perceived ease of use</i> - Customer loyalty	Significant	0.001< 0.05
5. Customer satisfaction - Customer loyalty	Significant	0.000<0.05
Independent Variables - Intervening – Bound	Results	Significance
1. <i>Perceived Usefulness</i> - Customer satisfaction - Customer loyalty	Significant	0.000< 0.05
2. <i>Perceived ease of use</i> - Customer satisfaction - Customer loyalty	Significant	0.000<0.05

Source: Primary Data Processing (2023)

Based on the results of the research, it is described as follows:

**The Effect of Perceived Usefulness on Customer Satisfaction of the Satuguru Blockcha in Based Online Media Platform.**

There is a significant positive direct effect of Perceived Usefulness on customer satisfaction of the Satuguru Blockchain-Based Online Media Platform. Perceived Usefulness has a positive and significant effect on customer satisfaction, meaning that changes in Perceived Usefulness have a unidirectional effect on changes in customer satisfaction or in other words, if Perceived Usefulness increases, there will be an increase in customer satisfaction and statistically has a significant effect. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017) and Wilson et al., (2023) which says there is an effect of perceived usefulness on customer satisfaction. If users feel that the Satuguru Blockchain-based online media platform provides significant benefits in terms of data security, content authentication, transparency, and other elements presented by Blockchain technology, they are likely to be more satisfied with using this platform. When users feel that the Platform is truly useful in meeting their needs and goals, they will feel satisfied and may be more inclined to continue using the Platform on an ongoing basis. If users feel that this Platform provides better or innovative solutions in overcoming problems that exist in conventional online media, this can increase the perception of usefulness and ultimately increase customer satisfaction. Conversely, if users feel that the Platform does not provide the expected benefits or does not have a significant impact on their experience, they may feel dissatisfied and may seek other alternatives.

**The effect of perceived ease of use on customer satisfaction of the Satuguru Blockchain-Based Online Media Platform.**

There is a significant positive direct effect perceived ease of use for customer satisfaction on the Satuguru Blockchain-Based Online Media Platform. Perceived ease of use has a positive and significant effect on customer satisfaction, meaning that changes in perceived ease of use have a unidirectional effect on changes in customer satisfaction or in other words, if perceived ease of use increases, there will be an

increase in customer satisfaction and statistically has a significant effect. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017), Haq et al., (2022), Apriliani & Widodo, (2023) And Wilson et al., (2023) that said there was influence *perceived ease of use* on customer satisfaction. If users find the Satuguru Platform easy to use, with an intuitive interface and simple navigation, they will tend to be satisfied with their experience. The ease of interacting with this Platform can reduce barriers to use, so users can focus more on getting the benefits of the content and services offered by the Platform. A smooth and seamless user experience due to ease of use can create a sense of comfort and trust in the Platform, which in turn can increase user satisfaction. Users who feel that they can quickly and effectively access and interact with content and services on the Platform will be more satisfied and may be more inclined to continue using the Platform.

#### **The Effect of Perceived Usefulness on Customer Loyalty of the Satuguru Blockchain-Based Online Media Platform.**

There is a significant positive direct effect of Perceived Usefulness towards customer loyalty of the Satuguru Blockchain-Based Online Media Platform. *Perceived Usefulness* has a positive and significant effect on customer loyalty, meaning that changes in Perceived Usefulness have a one-way effect on changes in customer loyalty or in other words, if Perceived Usefulness increases, there will be an increase in customer loyalty and statistically has a significant effect. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Kungumapriya & Malarmathi, (2018), Marso, (2023) And Wilson et al., (2023) which says there is an effect of perceived usefulness on customer loyalty. If users feel that the Satuguru Platform provides significant benefits for them, such as overcoming existing problems in conventional online media or providing more useful content, they are likely to be satisfied with using this Platform. The perception that this Platform provides better or innovative solutions in meeting user needs and expectations can create a sense of attachment to and dependence on the Platform. If users feel that they are getting real and useful added value from using this Platform, they are more likely to continue using this Platform rather than looking for other alternatives. Customer loyalty can develop brand loyalty, where users feel bound to the Platform and feel that this Platform makes a positive contribution to their needs and goals. Users who find the Platform very useful may feel more emotionally attached to the Platform, which can encourage them to continue using the Platform consistently.

#### **The effect of perceived ease of use on customer loyalty of the Satuguru Blockchain-Based Online Media Platform.**

There is a significant positive direct effect on perceived ease of use the customer loyalty of the Satuguru Blockchain-Based Online Media Platform. *Perceived ease of use* has a positive and significant effect on customer loyalty, meaning that changes in perceived ease of use have a unidirectional effect on changes in customer loyalty or in other words, if perceived ease of use increases, there will be an increase in customer loyalty and statistically has a significant effect. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Haq et al., (2022), Marso, (2023) And Wilson et al., (2023) that said there was influence *perceived ease of use* on customer loyalty. If users feel that the Satuguru Platform is easy to use and has an intuitive interface, they will tend to feel more comfortable interacting with the Platform. Ease of use can reduce barriers that new or less technical users may encounter, thus increasing their chances of continuing to use the Platform. Users who feel that they can easily take advantage of the various features and services offered by the Platform will be more likely to continue using this Platform on an ongoing basis. Easy use of the Platform can create a smoother positive experience, which in turn can form a more positive relationship with the Platform and encourage loyalty. If users feel that they need not face difficulties or frustrations when using the Platform, they are more likely to choose this Platform as their first choice and perhaps even recommend it to others.

#### **The effect of customer satisfaction on customer loyalty of the Satuguru Blockchain-Based Online Media Platform.**

There is a significant positive direct effect on customer satisfaction towards customer loyalty of the Satuguru Blockchain-Based Online Media Platform. Customer satisfaction has a positive and significant effect on customer loyalty, meaning that changes in customer satisfaction have a unidirectional effect on

changes in customer loyalty or in other words, if customer satisfaction increases, there will be an increase in customer loyalty and statistically has a significant effect. This is supported by previous research conducted by Harianto & Ellyawati, (2023), Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Mandasari & Giantari, (2017), Haq et al., (2022), Apriliani & Widodo, (2023), Daud et al., (2018) and Wilson et al., (2023) which says there is an effect of satisfaction on customer loyalty. Users who are satisfied with their experience using the Satuguru Platform tend to have a positive view of the Platform. Satisfaction can be formed from various factors such as quality content, good customer service, ease of use, and unique features offered by the Platform. Users who are satisfied with their experience have a higher tendency to continue using the Platform on an ongoing basis. They tend not to look for other alternatives because they have found a solution that meets their expectations. Satisfied users tend to be more emotionally attached to the Platform. They will probably feel loyal to the Satuguru brand and have a greater incentive to maintain a relationship with the Platform. Customer satisfaction can be a factor that encourages users to recommend the Platform to their friends, family or colleagues. Positive recommendations can increase the user base and also strengthen customer loyalty. A satisfying experience can create a sense of trust between users and the Platform. High satisfaction can encourage users to continue using this Platform even in situations where there are other alternatives available.

#### **The effect of Perceived Usefulness on customer satisfaction and its implications for the customer loyalty of the Satuguru Blockchain-Based Online Media Platform**

Customer satisfaction is able to mediate Perceived Usefulness to customer loyalty of the Satuguru Blockchain-Based Online Media Platform. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022) and Wilson et al., (2023) which says there is an effect of perceived usefulness on customer loyalty through customer satisfaction as an intervening variable. If users feel that the Satuguru Platform provides significant benefits for them, such as providing quality content, better security through Blockchain technology, and solutions to problems that exist in conventional online media, they will be satisfied with their experience using it. High perceived usefulness can directly increase the level of customer satisfaction. Users who feel that the Platform helps them achieve their goals and meet their needs will tend to feel more satisfied. High customer satisfaction can lead to stronger customer loyalty. Satisfied users are more likely to continue using this Platform on an ongoing basis because they believe that this Platform provides consistent added value. Users who are satisfied and experience significant benefits from using the Platform may be more likely to recommend this Platform to others. These positive recommendations can strengthen the user base and drive customer loyalty growth. In the long run, if the Platform continues to maintain and improve the benefits experienced by users, customer loyalty is likely to remain strong. However, it is important to continuously monitor and update the Platform according to changing user needs and expectations. The implication of this relationship is that Blockchain-based online media platforms like Satuguru need to focus on bringing real and sustainable benefits to users. This can include providing high-quality content, enhanced security, transparency, and other value-adding features. By meeting user expectations and creating useful experiences, the Platform can build higher satisfaction and in turn increase customer loyalty.

#### **The effect of perceived ease of use on customer satisfaction and its implications for the customer loyalty of the Satuguru Blockchain-Based Online Media Platform**

Customer satisfaction is able to mediate perceived ease of use towards customer loyalty of the Satuguru Blockchain-Based Online Media Platform. This is supported by previous research conducted by Maryanto & Kaihatu, (2023), Suryatenggara & Dahlan, (2022), Daud et al., (2018) and (Wilson et al., 2021) explain supports that *perceived ease of use* has a positive and significant influence on customer loyalty through customer satisfaction variables. If users feel that the Satuguru Platform is easy to use and has an intuitive interface, they will feel more comfortable interacting with the Platform. Ease of use can reduce the potential for frustration and difficulty when interacting with the Platform. An easy-to-use interface and smooth navigation can help users explore various Platform features quickly and seamlessly. This has the potential to increase the feeling of satisfaction as users feel able to take full advantage of the Platform. Smooth and easy user experience contributes to higher levels of satisfaction. Users who are satisfied

with their usage experience are more likely to consider this Platform as their first choice. Users who find it easy to adapt to the Platform and do not experience significant problems may be more inclined to continue using the Platform on an ongoing basis. Customer satisfaction driven by ease of use can create a sense of comfort and trust between users and the Platform. This has the potential to increase customer loyalty as users feel comfortable and satisfied with their experience. The implication of this relationship is that the Satuguru Platform manager needs to ensure that the interface and user experience on this Platform meets expectations and is easy to use. This could involve customizing the interface design, providing clear user guidance, and ensuring that Platform features are easily accessible. By providing an easy and convenient user experience, Platforms can build higher levels of satisfaction and ultimately increase customer loyalty

## V. CONCLUSION

1. There is a significant positive direct effect of Perceived Usefulness on customer satisfaction of the Satuguru Blockchain-Based Online Media Platform, where every increase in Perceived Usefulness will increase customer satisfaction.
2. There is a significant positive direct effect of perceived ease of use on customer satisfaction of the Satuguru Blockchain-Based Online Media Platform, where any increase in perceived ease of use will increase customer satisfaction.
3. There is a significant positive direct effect of Perceived Usefulness on customer loyalty of the Satuguru Blockchain-Based Online Media Platform, where every increase in Perceived Usefulness will increase customer loyalty.
4. There is a significant positive direct effect of perceived ease of use on customer loyalty of the Satuguru Blockchain-Based Online Media Platform, where any increase in perceived ease of use will increase customer loyalty.
5. There is a significant positive direct effect of customer satisfaction on customer loyalty of the Satuguru Blockchain-Based Online Media Platform, where every increase in customer satisfaction will increase customer loyalty.
6. Customer satisfaction is able to mediate Perceived Usefulness to customer loyalty of the Satuguru Blockchain-Based Online Media Platform.
7. Customer satisfaction is able to mediate perceived ease of use towards customer loyalty of the Satuguru Blockchain-Based Online Media Platform

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