Antecedents of Customer Loyalty: Study from the Indonesia’s Largest E-commerce*

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Abstract

This study examines the effect of service quality and perceived value on customer loyalty with the intervening role of customers’ satisfaction in the e-commerce industry. The research method uses a quantitative research design with a survey model. The sample used in this study is Tokopedia consumers who live in DKI Jakarta and have done online shopping at Tokopedia at least twice in the last six months. All variables used were reliable and valid and met the research requirements. The object of this research were the 200 customer respondents who had made purchases on the largest e-commerce platform of Indonesia, Tokopedia. Data analysis was done by using SPSS and Structural Equation Modeling (SEM). The results show that: first, the service quality and perceived value affect customer satisfaction positively. Second, there is a mediating effect of customer satisfaction on the relationship between service quality and perceived value on customer loyalty. Third, service quality and perceived value directly affect customer loyalty positively but insignificantly. The result implies that the role of customer satisfaction is significant in creating loyalty. In the e-commerce industry, good quality and perception could positively influence customers but not necessarily form loyalty. For that, e-commerce players should pay a lot of attention on customer satisfaction.

Keywords: Service Quality, Perceived Value, Customer Satisfaction, Customer Loyalty, E-commerce

JEL Classification Code: E44, F31, F37, G15

1. Introduction

The development of digitalization in industries has grown at a rapid pace globally in the recent times. The development of technology has provided many conveniences for people in carrying out their daily activities. Activities like shopping, financial transactions, traveling, sending goods, and looking for information, is now more accessible. The development of computer technology and network infrastructure has revolutionized the use of the internet. This phenomenon has led to the development of business through the internet known as e-business. Electronic transactions done on an e-business is known as e-commerce. The existence of e-commerce has also made an impact in Indonesia. With the development of e-commerce now sellers can sell their products on e-commerce platforms such as Tokopedia, Zalora, Bukalapak, Lazada, Shopee and other stores.

Indonesia is a country which has witnessed a relatively fast growth in e-commerce. Merchant Machine, a British research institute, released a list of 10 countries with the fastest growing e-commerce industry in the world, and Indonesia was found to be the leader among these countries. The growth of e-commerce in Indonesia in 2018 reached up to 78 percent (wearesocial.com, 2019). Moreover, one of the largest e-commerce sites, Tokopedia is in Indonesia. Tokopedia is the number one e-commerce in Indonesia with the highest number of visits per month, with 65,953,400 visits and over 90 million users active every month.
However, if one looks at other aspects of the assessment, it turns out that Tokopedia has second place for the App Store Rank, and third place for the Playstore Rank, the first position was successfully occupied by its business competitor, Shopee (iprice.co.id, 2020). Valuation on the App Store and Play Store applications is an essential for e-commerce platforms to build brand equity. According to Tadelis (2006), one shaper of the reputation of the online marketplace platform is the online rating and online review. The decline is understood to be a result of decreased customer loyalty caused by decreased customer satisfaction with Tokopedia services (Kussusanti, 2019).

The decrease in the level of customer satisfaction is allegedly due to a decrease in the quality of Tokopedia services digitally. Paying attention to the quality of services provided to customers becomes important because it dramatically influences the customer’s assessment of a brand or company. According to Spreng and Mackoy (1996), since dealing with customer satisfaction, service quality has become a matter of much consideration in marketing topics. The perception of favorable service quality leads to increased customer satisfaction. In other words, there is a relationship between customer satisfaction and service quality.

High-quality service will result in customer satisfaction. Customer service needs to exceed customer expectations so that customers feel satisfied and are loyal to the company’s services rather than to that of competitors. This is also in line with previous research conducted by Gounaris, Dimitriadis, and Stathakopoulos (2010), Rita, Oliveira, and Farisa (2019), and Ningsih, Haryono, and Sawitri (2019). In addition to service quality, perceived value is thought to be another essential thing that can affect customer satisfaction. Some previous studies also considered that to attract more consumers, it is essential to develop the perceived value to the customer (Chang & Wang, 2009; Parasuraman et al., 2005).

There are many ways in which companies can build a positive perception of value. Tokopedia, as one of the major e-commerce companies, has also maximized this, which is evident in Tokopedia’s position as an e-commerce platform with a high reputation. However, there are several issues related to values that Tokopedia still faces. Some of them are related to the development of Tokopedia’s loyalty program, which is still low, that is only 0.01% and product quality compared to the price, which is still in the bottom (dailysocial.id, 2018). Value is interpreted as an overall assessment by customers about the usefulness or utility of a product as well as about the assessment of products based on the perception of what is received and what is paid or given (Parasuraman & Grewal, 2000).

Based on this definition, researchers can argue that the perceived value of customers will contribute to loyalty to the company and minimize the possibility of customers switching to alternative products. Perception of good value offered by brands and companies can be one important factor why customers choose a specific company and be loyal to them rather than its competitors. El-Adly (2019). With service quality and high perceived value, customers are expected to feel satisfied and choose the company’s products rather than competitors’ products. The existence of satisfaction leads to customers buying behavior which creates a sense of loyalty and the customer tends to re-choose the company’s products.

This paper seeks to complement several previous studies with a focus to examine the effect of service quality and perceived value on customers’ loyalty with customer satisfaction as an intervening factor.

2. Literature Review

2.1. Customers’ Loyalty

According to Lovelock (2016), loyalty is an old expression that has traditionally been used to describe enthusiastic devotion to a country, a certain cause, or a human being. Loyalty in the business context is a depiction of the customer’s willingness to continue to patronize any specific company and its products and services in the long run, and prefer it in a particular context, and recommend it to friends and colleagues (Lovelock, 2016). Then in the context of e-commerce or e-store, customer loyalty predisposes buying behavior. Chang and Chen (2009) explain that theoretical support generally emphasizes the dimensions of loyalty and repeat purchase behavior to predict the level of repurchase. However, it is considered insufficient because it cannot distinguish between true customer loyalty and false customer loyalty (Nguyen, 2020).

For this reason, in their research, Chang and Chen (2009) define customer loyalty as the preferred attitude of customers towards e-commerce sites or e-stores and a tendency of customers to repeat buying behavior. According to Pareira et al. (2016), current research assumes customer loyalty as a representative of the intention to repurchase or make a return visit on a specific site. Researchers later described customer loyalty in e-commerce terms or online customer loyalty as loyalty to the site, conducting transactions through the site, and recommending the site to others (Suhartanto et al., 2019).

2.2. Customers’ Satisfaction

Customer satisfaction, according to Kotler and Keller (2016), is said to be a feeling of pleasure or disappointment of an individual, which results from comparing the performance or the results felt from shopping online in connection with an expectation. While quoted from Rizan et al. (2019), Consumer satisfaction is a special relationship
originating from the effect of a series of meetings between discrete services or transactions, such as searching, buying, and continuing to use products in a platform or online vendor for a specified period.

Kotler et al. (2001) also explain that satisfaction is a feeling of pleasure or disappointment someone has after comparing the performance obtained with current expectations. Some of Kotler’s other definitions are to assess satisfaction as a function of the comparison of perceived performance and expectation. According to Kotler (2011), if the performance obtained is lower than expectations, consumers will feel dissatisfied. If the performance obtained is the same as expectations, consumers will feel satisfied. If the performance obtained exceeds expectations, consumers will feel very satisfied (delighted).

2.3. Quality of Service

To get customer satisfaction and achieve their loyalty, companies must be able to provide services in these research services with good quality. Companies must be able to see what customers want and meet the quality of services sold according to the needs sought. According to Kotler et al. (2001), product quality (services or goods) is the ability of a product to carry out its functions, which encompass durability, reliability, strength, ease of use, and product repairs, as well as other valuable features.

According to Tjiptono (2002), service quality is the level of expected excellence and control over elective excellence, so that customer desires are fulfilled. So it can be concluded that the two main factors that influence the quality of service for customers are the expected service and the service received. In this study, the dimension used to measure indicators use E-SERVQUAL model. The seven dimensions used are (1) efficiency, (2) availability, (3) fulfillment, (4) privacy, (5) responsiveness, (6) compensation, and (7) contact. Parasuraman, Zeithaml, and Malhotra (2005)

2.4. Perceived Value

Kotler and Keller (2016) explain customer perceived value as a comparison between overall customer assessments of the benefits received with the costs needed to obtain these benefits. Kotler and Keller (2016) also explained that perceived value is the difference from what customers get from what is offered, what the market or service provider provides, and what customers pay for the benefits they want to enjoy. Gallarza, Artega, and Gil (2019) formulate the dimensions of perceived value into five groups that are also used in this study: 1) Functional value (the relationship between attributes, usefulness benefits) 2) Social value (social benefits or symbolic benefits) 3) Emotional value (benefits emotional experience or benefits) 4) Epistemic value (benefits derived from curiosity) 5) Conditional value (benefits of certain situations).

This study aims to determine the effect of service quality and perceived value on customer loyalty with the intervening role of customers’ satisfaction with the e-commerce industry. It synthesized prior empirical findings and relevant theories to develop a logical relationship between the variables. There are four proposed hypotheses that can be summarized in the following research model (Figure 1).

Customer satisfaction is a sign of customers believing in the probability or ability of services to be able to provide positive feelings or effects (Pereira et al., 2016). Previous literature has confirmed that there is a significant relationship between service quality and customer satisfaction. The research of Kresnamurti et al. (2020), in which the sample was 200 hotel customers in Jakarta, found a significant positive effect of service quality offered on customers’ satisfaction. Then, according to research on website and online shopping, Kuo (2009) found that customer satisfaction on the internet and e-commerce industry is the total response of consumers to all experiences felt. In this research, customer satisfaction is defined as total customer consumption when using the service.

H1: Service quality affects customer satisfaction.

Research shows perceived value is different from customer satisfaction in several ways, first in the concept components that make up both (Kotler & Keller, 2009). Both customer satisfaction is conceptualized as unidimensional arrangements or constructs, while the perceived value in research is shown as multidimensional values. Third, perceived value is the value that brings customers to various stages of the purchase, including the level before the purchase. In contrast, customer satisfaction only affects the level after the purchase or use of the product (Sweeney & Johnson, 1999). The study indicated that perceived value could be the cause of customer satisfaction. Several previous studies have also shown that perceived value has a positive effect and is directly the cause of customer satisfaction (Gallarza & Gil, 2019; Konuk, 2019).

H2: Perceived value affects customer satisfaction.

Customer satisfaction is considered to act as an antecedent (cause) of loyalty and arises from previous consumption experiences (Chang & Chen, 2008). Other research shows that satisfaction is the cause of loyalty, where an increase in satisfaction can also cause an increase in customer loyalty (Reichheld & Schefter, 2000). Other studies also show that customer satisfaction has a significant and positive effect directly on customer loyalty. The research shows that delighted customers will have the characteristics of being more loyal, buying more, talking good things about the
company, and comparing services with competitors a little. (El-Adly & Eid, 2016; Rizan, Warokka, & Listyawati, 2014).

**H3: Customer satisfaction affects customer loyalty.**

Chang et al. (2014) shows that service quality is a particular assessment factor of the services offered by companies. Loyalty to individual services will bring customers to buy back desirable behavior. While other studies show, customer loyalty is determined by customer experience of service quality (Pee et al., 2018). The relationship between the two implies that the role of service quality perceived by customers will also influence their loyalty to the product or company. Whereas in the e-commerce industry, excellent service quality is the expectation of customers when shopping online (Suhartanto et al., 2019). This study also found the effect of service quality on customer loyalty.

**H4: Service quality affects the customer loyalty.**

In previous studies, there were many direct and positive influences between customer perceived value and customer loyalty (Chen & Tsai, 2008; El-Adly & Eid, 2016). Seen in the El-Adly (2016) study, which researched the retail service industry, it was found that perceived value significantly affected loyalty. Another research also argues that when customer perceived value decreases, customers will start to make product consumption changes to other company brands, which indicates a decrease in customer loyalty (Cristobal, Flavian & Guinaliu, 2007).

**H5: Perceived value affects customer loyalty.**

Service quality has been proven to have a significant influence on both customer satisfaction and customer loyalty (Parasuraman, Zeithaml, & Berry, 1985). According to Caruana (2002), its role as a mediating or intervening variable, customer satisfaction has been shown to have a positive and significant relationship with customer loyalty based on research conducted by Zeithamal and Berry (1985). The literature on services reporting empirical results suggests customer satisfaction as an intervening variable that mediates the relationship between service quality and customer loyalty (Taylor & Baker, 1994).

**H6: Service quality affects the customer loyalty through customer satisfaction as intervening.**

In addition to being directly related to customer loyalty, other research indicates that the relationship between customer perceived value and customer loyalty is better explained by presenting customer satisfaction as a mediating or intervening variable (Lee & Lin, 2005). Research conducted by Lee and Lin (2005) found that customers who make purchases online have a high perceived value to the company, and the role of customer satisfaction is explained as a better variable in interpreting those values. Other research also states that customer perceived value has an indirect effect on customer loyalty (Adly & Eid, 2016) (see Figure 1).

**H7: Perceived value affects the customer loyalty through customer satisfaction as intervening.**

### 3. Research Methods and Materials

This research uses an approach with quantitative methods. The design of this research is to use descriptive and causal types (Malhotra, 2010). The sample used in this study is Tokopedia consumers who live in DKI Jakarta and have done online shopping at Tokopedia at least twice in the last six months. The validity conducted using the Pearson Product Moment Correlation technique and for reliability using the Cronbach Alpha technique with SPSS 22. Meanwhile, the analysis using SEM (Structural Equation Model) using LISREL software version 8.8.

![Figure 1: Research Model](image-url)
The number of samples taken in this study was 145 respondents. However, the size of the sample chosen was as many as 200 people with consideration given to reducing the errors (Hair et al., 2011). Analysis conducted using 5% significance for r-table values is 0.138, and for reliability, a test is it appears to be > 0.6. All variable statuses are valid and reliable if they meet the requirements.

### 3.1. Validity and Reliability Test

Test the validity of this study using the Pearson test. Pearson values are considered valid if the r values are greater than the r-table. The r table in this study with a significance of 5% and the number of samples 200 is 0.1388. Furthermore, to test reliability, researchers used the Cronbach’s Alpha test of each variable. If the Cronbach’s Alpha value is less than 0.6 then it can be said to be unfavorable, if 0.7 then it can be accepted, and if the value of 0.8 can be said to be good (Ghozali & Latan, 2012) (see Table 1).

Based on Table 1, it can be seen that all r values for each indicator are greater than 0.318. So it can be concluded that each research indicator is valid. Results in Table 2 it can be seen that the Cronbach’s Alpha value of each variable is more than 0.6 and is more than 0.8 so it can be said to be reliable (see Table 2).

| Variable                      | Indicator | R-values | r-table 5% (n=200) | Information |
|-------------------------------|-----------|----------|-------------------|-------------|
| Service Quality (X1)          | SQ1       | 0.615    | 0.1388            | Valid       |
|                               | SQ2       | 0.626    | 0.1388            | Valid       |
|                               | SQ3       | 0.537    | 0.1388            | Valid       |
|                               | SQ4       | 0.706    | 0.1388            | Valid       |
|                               | SQ5       | 0.611    | 0.1388            | Valid       |
|                               | SQ6       | 0.682    | 0.1388            | Valid       |
|                               | SQ7       | 0.654    | 0.1388            | Valid       |
|                               | SQ8       | 0.718    | 0.1388            | Valid       |
|                               | SQ9       | 0.622    | 0.1388            | Valid       |
|                               | SQ10      | 0.650    | 0.1388            | Valid       |
|                               | SQ11      | 0.614    | 0.1388            | Valid       |
|                               | SQ12      | 0.721    | 0.1388            | Valid       |
| Perceived Value (X2)          | PV1       | 0.739    | 0.1388            | Valid       |
|                               | PV2       | 0.737    | 0.1388            | Valid       |
|                               | PV3       | 0.722    | 0.1388            | Valid       |
|                               | PV4       | 0.723    | 0.1388            | Valid       |
|                               | PV5       | 0.736    | 0.1388            | Valid       |
|                               | PV6       | 0.776    | 0.1388            | Valid       |
| Customer Satisfaction (Y)     | CS1       | 0.795    | 0.1388            | Valid       |
|                               | CS2       | 0.835    | 0.1388            | Valid       |
|                               | CS3       | 0.836    | 0.1388            | Valid       |
|                               | CS4       | 0.798    | 0.1388            | Valid       |
|                               | CS5       | 0.805    | 0.1388            | Valid       |
| Customer Loyalty (Z)          | CL1       | 0.759    | 0.1388            | Valid       |
|                               | CL2       | 0.750    | 0.1388            | Valid       |
|                               | CL3       | 0.816    | 0.1388            | Valid       |
|                               | CL4       | 0.764    | 0.1388            | Valid       |
|                               | CS4       | 0.798    | 0.1388            | Valid       |
|                               | CS5       | 0.805    | 0.1388            | Valid       |
3.2. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is an analysis that aims to identify the relationship between variables by conducting a correlation test (Table 3). This test is also to confirm whether the model is built as hypothesized. This research uses first order confirmatory factor analysis, because the software used is LISREL. This used to test the construct of each variable to get a model that matches the index criteria (Hair et al., 2011).

**Service Quality.** In the instrument test results, the service quality variable has 12 indicators. After processing the model in the first order construct, no indicators are wasted, but adjustments are made to the recommended value of LISREL to produce a good Goodness of Fit Indices value. In this case, the test result indicated that the service quality variable model produces acceptance. The result of the model fitness test with all criteria are accepted. Result of testing product quality variable consist of GFI 0.97; RMSR 0.01; RMSEA 0.02; AGFI 0.97; TLI/NNFI 1.00; CFI 1.00 (see Table 3).

**Perceived Value.** In the instrument test results, the perceived value variable has 6 indicators. After processing the model in the first order construct, no indicators are wasted, but adjustments are made to the recommended value of LISREL to produce a good Goodness of Fit Indices value. In this case, the test result shows that the perceived value variable model produces are acceptable. The result of the model fitness test with all criteria are accepted. Result of testing product quality variable consist of GFI 0.97; RMSR 0.01; RMSEA 0.00; AGFI 0.91; TLI/NNFI 1.00; CFI 1.00.

**Customer Satisfaction.** In the instrument test results, the perceived value variable has 6 indicators. After processing the model in the first order construct, no indicators are wasted. All results look valid because the value of each indicator is above 0.5 and the goodness of fit test is good. In this case, the test result shows that the customer loyalty variable model produces is acceptable. The result of the model fitness test with all criteria are accepted. Result of testing product quality variable consist of GFI 0.97; RMSR 0.01; RMSEA 0.04; AGFI 0.94; TLI/NNFI 1.00; CFI 1.00 (see Table 3).

**Customer Loyalty.** In the instrument test results, the variable customer satisfaction has 5 indicators. After processing the model in the first order construct, no indicators are wasted. All results look valid because the value of each indicator is above 0.5 and the goodness of fit test is good. In this case, the test result shows that the customer loyalty variable model produces is acceptable. The result of the model fitness test with all criteria are accepted. Result of testing product quality variable consist of GFI 0.97; RMSR 0.01; RMSEA 0.00; AGFI 0.91; TLI/NNFI 1.00; CFI 1.00 (see Table 3).

3.3. Test for Direct and Indirect Effects.

Direct and indirect influence tests are carried out to determine whether there are direct or indirect influences between the independent variables and the dependent variables tested. If the t-value on the structural equation results is > 1.96, then there is a significant influence between variables and vice versa, then if it is positive then the resulting effect is unidirectional. In this case, service quality and perceived value are independent variables, customer loyalty is a dependent variable and customer satisfaction is a mediating variable.

Based on the results of data analysis (Table 4), the variable service quality (X1) has a direct effect of 0.38 on customer satisfaction (Y), the perceived value (X2) has a direct effect of 0.53 on customer satisfaction (Y). Furthermore, customer satisfaction (Y) has a direct effect of 0.51 on customer loyalty (Z). Service quality variable (X1) on customer loyalty (Z) has a direct effect of 0.47 and an indirect effect of 0.19. While the variable perceived value (X2) on customer loyalty (Z) has a direct and indirect effect of 0.27 (see Table 4).

4. Results and Discussion

Figure 2 shows the results of the structural model equation, which answers the seven hypotheses of this study. The first hypothesis, service quality affects customer satisfaction. According to Figure 2 and Table 4, service quality variable (X1) to customer satisfaction (Y) has a standardized total effects value of 0.38 and t-value 2.62 > 1.96. So the first hypothesis that service quality affects customer satisfaction can be accepted. The relationship between the two variables is significantly positive. These results are in line with research by Rita, Olivera, and Farisa (2019), and Ningsing et al. (2019), which found that service quality has a positive and significant effect on customer satisfaction.
Table 3: First Order Construct

| Items                  | Goodness of Fit Indices | Cut-off Value | Result | Model Evaluation |
|------------------------|-------------------------|---------------|--------|------------------|
| **Service Quality**    | Df                       | <3            | 0.01   | Perfect Fit      |
|                        | GFI                      | ≥ 0.90        | 0.94   | Fit              |
|                        | RMSR                     | <0.05         | 0.01   | Good Fit         |
|                        | RMSEA                    | ≤ 0.08        | 0.00   | Close Fit        |
|                        | AGFI                     | ≥ 0.90        | 0.91   | Good Fit         |
|                        | TLI/NNFI                 | ≥ 0.90        | 1.00   | Good Fit         |
|                        | CFI                      |               | 0.06   | Good Fit         |
| **Perceived Value**    | Df                       | <3            | 0.98   | Good Fit         |
|                        | GFI                      | ≥ 0.90        | 0.01   | Good Fit         |
|                        | RMSR                     | <0.05         | 0.00   | Close Fit        |
|                        | RMSEA                    | ≤ 0.08        | 0.93   | Good Fit         |
|                        | AGFI                     | ≥ 0.90        | 1.00   | Good Fit         |
|                        | TLI/NNFI                 | ≥ 0.90        | 1.00   | Good Fit         |
|                        | CFI                      |               | 0.5    | Perfect Fit      |
| **Customer Satisfaction** | Df                        | <3            | 0.99   | Fit              |
|                        | GFI                      | ≥ 0.90        | 0.00   | Good Fit         |
|                        | RMSR                     | <0.05         | 0.02   | Close Fit        |
|                        | RMSEA                    | ≤ 0.08        | 0.97   | Good Fit         |
|                        | AGFI                     | ≥ 0.90        | 1.00   | Good Fit         |
|                        | TLI/NNFI                 | ≥ 0.90        | 1.00   | Good Fit         |
|                        | CFI                      |               | 0.08   | Good Fit         |
| **Customer Loyalty**   | Df                       | <3            | 0.97   | Fit              |
|                        | GFI                      | ≥ 0.90        | 0.01   | Good Fit         |
|                        | RMSR                     | <0.05         | 0.04   | Close Fit        |
|                        | RMSEA                    | ≤ 0.08        | 0.94   | Good Fit         |
|                        | AGFI                     | ≥ 0.90        | 1.00   | Good Fit         |
|                        | TLI/NNFI                 | ≥ 0.90        | 1.00   | Good Fit         |

Table 4: Structural Equation Model

| Hypothesis | Dependent Variable | Independent Variable | Standardized Total Effects | t-values | Interpretation           |
|------------|--------------------|-----------------------|---------------------------|----------|--------------------------|
| H1         | Customer Satisfaction | Service Quality       | 0.38                      | 2.62     | Positively significant   |
| H2         | Customer Satisfaction | Perceived Value       | 0.53                      | 3.70     | Positively significant   |
| H3         | Customer Loyalty    | Customer Satisfaction | 0.51                      | 3.05     | Positively significant   |
| H4         | Customer Loyalty    | Service Quality       | 0.47                      | 1.50     | insignificant             |
| H5         | Customer Loyalty    | Perceived Value       | 0.27                      | 0.02     | insignificant             |
| H6         | Customer Loyalty    | Customer Satisfaction | 0.19                      | 2.22     | Positively significant   |
| H7         | Customer Loyalty    | Customer Satisfaction | 0.27                      | 2.24     | Positively significant   |
The second hypothesis, perceived value affects customer satisfaction. According to Figure 2 and Table 4, the variable perceived value (X2) on customer satisfaction (Y) has a standardized total effects value of 0.53 and a t-value of 3.70 > 1.96. So that the second hypothesis perceived value affects customer satisfaction can be accepted. The relationship between the two variables is significantly positive. These results are in line with research by El-Adly (2019) and Konuk (2019), which states that perceived value has a positive and significant effect on customer satisfaction. By studying the hospitality industry, El-Adly (2019) found that a good reputation on perceived value can support customer satisfaction and encourage their desire to reuse the services.

The third hypothesis, customer satisfaction, affects customer loyalty. According to Figure 2 and Table 4, the variable customer satisfaction (Y) to customer loyalty (Z) has a standardized total effects value of 0.51 and a t-value of 3.05 > 1.96. So the third hypothesis is that customer satisfaction can affect customer loyalty. The relationship between the two variables is significantly positive. These results are supported by research by Pereira, Salgueiro, and Rita (2016), Wahab et al. (2016), which states that customer satisfaction has a positive and significant effect on customer loyalty.

The fourth hypothesis, service quality affects customer loyalty. According to Figure 2 and Table 4, service quality variable (X1) to customer loyalty (Z) has a standardized total effects value of 0.47 and t-value 1.50 > 1.96. So the fourth hypothesis of service quality affects customer loyalty can be accepted. The relationship between the two variables is positive but not significant. The results also support Suhartanto et al. (2019) research, which states that the effect of service quality on customer loyalty directly is not significant. The study explained that the significant influence between the two variables then exists through other variables (intervening), which also affects the service quality. Meanwhile, for this study, researchers guess that the results are positive not significant because, in the e-commerce industry, loyalty is not a natural conduct just because the services were excellent. Each component of loyalty is functional if represented by more than one factor. It is proven by the customer satisfaction factor that leads the service quality to loyalty.

The fifth hypothesis, perceived value affects customer loyalty. According to Figure 2 and Table 4, the variable perceived value (X2) to customer loyalty (Z) has a standardized total effects value of 0.27 and a t-value of 0.02 > 1.96. So the fifth hypothesis perceived value affects customer loyalty.
customer loyalty can be accepted. The relationship between
the two variables is positive but not significant. These
results are also in line with Rasheed and Abadi’s (2014)
study, which states that the effect of perceived value on
customer loyalty directly is positive. However, in this study,
the results are different from the Tankovic and Benazic
(2018) research, which found that perceived value has a
significant effect on customer loyalty. Tankovic and Benazic
(2018) study explained that perceived value has a significant
influence on the loyalty attitude, but has a minimal effect on
behavioral loyalty. While in this study, the researcher found
that perceived value has a positive but insignificant effect on
the overall customer loyalty dimension, both attitude loyalty
and behavioral loyalty.

The sixth hypothesis of this study, service quality
affects customer loyalty through customer satisfaction as
intervening. Our results show that service quality (X1) to
customer loyalty (Z) through customer satisfaction (Y) has
a standardized total effect value of 0.19 and t-value 2.22>
1.96. So the sixth hypothesis service quality affects customer
loyalty through customer satisfaction as intervening can
be accepted. The relationship between the two variables
is significantly positive. These results are in line with the
study of Wen and Fang (2014), which states that customer
satisfaction can mediate service quality on customer loyalty
on e-commerce sites. Another literature of service also found
that the empirical result suggests customer satisfaction as an
intervening variable which mediates the relationship between
service quality and customer loyalty (Taylor & Baker, 1994).

The last hypothesis of this study, perceived value
affects customer loyalty through customer satisfaction as
intervening. Our result study shows that perceived quality
(X2) to customer loyalty (Z) through customer satisfaction
(Y) has a standardized total effects value of 0.27 and t-value
2.24> 1.96. So the seventh hypothesis perceived value
affects customer loyalty through customer satisfaction as
intervening can be accepted. The relationship between the
two variables is significantly positive. These results are in
line with the research of Wang and Prompanyo (2020), which
states that customer satisfaction can mediate the perceived
value of customer loyalty on e-commerce sites. The study
explained that perceived functional value, procedural value,
and social value have a significant favorable influence on
customer loyalty through customer satisfaction.

5. Conclusions

This study examines the effect of quality service
and perceived value on customer loyalty and customer
satisfaction. This study also examines the mediating role of
customer satisfaction between service quality and perceived
value relationship on customer loyalty. By using 200 samples
of online shopping customers of the largest e-commerce
website in Indonesia and proposing seven hypotheses, this
current research proposes some results.

The first hypothesis which says that service quality
affects customer satisfaction can be accepted. Service quality
has a total direct effect of 0.38 on customer satisfaction.
Where the effect formed is a significant positive. The second
hypothesis, perceived value affects customer satisfaction
can be accepted. Perceived value has a total direct effect of
0.53 on customer satisfaction. Where the effect formed is
also significant positive. Then the third hypothesis is that
customer satisfaction (Y) affects customer loyalty (Z) can
be accepted. Customer satisfaction has a total influence of 0.51
on customer loyalty. Where the effect formed is a significant
positive. The fourth hypothesis that service quality affects
customer loyalty can be accepted. Service quality has a total
direct effect of 0.47 on customer loyalty. Where the effect
formed is not significantly positive.

The difference result showed on the fifth hypothesis;
perceived value influences customer loyalty can be
accepted. Perceived value has a total direct effect of 0.27
on customer loyalty. Where the effect formed is positive
but not significant. The sixth hypothesis, service quality
affects customer loyalty through customer satisfaction, can
be accepted. Service quality has a direct effect on customer
loyalty of 0.47 and an indirect effect on 0.19. Where the
effect formed is a significant positive. The last hypothesis
is that perceived value influences customer loyalty through
customer satisfaction. Perceived value has a direct and
indirect effect on customer loyalty of 0.27. Where the effect
formed is a significant positive.

Based on the results of the study, there are some
practical suggestions and theoretical suggestions that can
be taken for further research as well as for the implications
of company-related policies. Some of these suggestions
are such as improving the quality of service in the form
of error minimization. Furthermore, Tokopedia must also
pay more attention to meeting customer expectations so
that satisfaction and loyalty can be increased. Then further
research is suggested to be able to use other variables that
can affect customer loyalty, such as Relationship Marketing,
according to Rizan et al. (2014) and Product Customization,
according to Chang and Chen (2008). It is recommended
because another factor could explain more details about the
relationship between each component and could provide
more data for identifying the significant effect.

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