Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri1,2, Ikas Miran2, Pandu Adi Cakranegara3, Asepma Hygi Prihastuti4

1State Islamic University Sultan Syarif Kasim, Pekanbaru.
2,4Institute of Business and Technology Pelita Indonesia, Pekanbaru.
3President university, Bekasi.

Abstract

This study aims to determine the effect of product innovation and service quality on customer satisfaction and customer loyalty at Honda motorcycle customers in Kampar Regency. Data collection was obtained through questionnaires collected from 105 consumers of Honda motorcycles in the Kampar Regency. The technique of sampling uses non-probability sampling and sample selection by purposive sampling. The data processing methods in this research are validity, reliability, the goodness of fit using Structural Equation Model (SEM) with Amos, and path analysis using the Sobel test. This study found that product innovation and service quality significantly affected customer satisfaction. Customer satisfaction has a significant effect on customer loyalty. Product innovation and service quality have no direct effect on customer loyalty. Product innovation and service quality significantly affect customer loyalty through customer satisfaction.

Key words: Product innovation; service quality; customer satisfaction; customer loyalty
INTRODUCTION

Transportation is one of the critical needs resulting from economic, business, and social activities that demand rapid population and resource mobility. Transportation is a common means to transport goods or people from one place to another. In Indonesia, the most common means of transportation are motorbikes. Congested traffic conditions and congestion in a big city in Indonesia make motorcycles a fast and efficient transportation option. As a means of transportation, motorcycle users in Indonesia in 2020 were recorded at more than 115 million units. (https://www.bps.go.id, 2020). The demand for motorbikes is increasing after online transportation such as Gojek, Grabbike, Maxim, Anterin, and Bonceng.

Several motorcycle brands that have been known for a long time in Indonesia include Honda, Yamaha, Kawasaki, and Suzuki. In terms of sales, Honda motorcycles until August 2021 still occupy the first position. According to the Indonesian Motorcycle Industry Association (AISI), Astra Honda Motor (AHM) at least controls 77.3% of the motorcycle market share in Indonesia (https://www.oto.com, 2021). As a market leader, Honda continues to maintain the loyalty of its customers. Loyal customers are essential in maintaining business continuity (Reichheld, F. F., & Schefter, P, 2000)). In addition, it was found that the attitude of dedicated customers tends not to easily switch brands (Aaker, 1991; Romus & Prihastuti, 2020; Al Sukri, 2020). Bringing benefits from increased sales, reduced marketing, and operational costs (Reichheld and Sasser, 1990; Bowen & Chen, 2001), it is not uncommon for loyal consumers to become a strong word of mouth (Rowley & Dawes, 2000; Bowen & Chen, 2001).

Customer loyalty is closely related to customer satisfaction (Heskett et al., 1994; Hallowell, 1996). Small changes in satisfaction can lead to substantial increases in loyalty (Oliva et al. 1992; Bowen and Chen 2001). For companies, customer satisfaction is an effective way to differentiate their products from competitors (Woodruff, 1997). On the consumer side, customer satisfaction is related to customer perceptions and expectations of the services provided (Antanegoro, Surya, and Sanusi 2017; Söderlund, 2006). Satisfaction is often used to predict future purchases for consumers (Kotler et al., 2018). Satisfied customers are more likely to make repeat purchases (Schneider & Bowen, 2010), recommend to others (Ramani, Kumar, 2008), and reject competitors' offers (Lassar, Manolis, Winsor, 2000). In line with Aryani & Rosinta (2011), which states that satisfied customers positively affect customer loyalty. Consumers satisfied with the product will affect subsequent behavior (Nurul Huda, 2018), customer assurance that a long-term, profitable relationship between the customer and the company will be achieved (Anggarawati,2021; Hayani & Alsukri, 2021).

Recently, increasing awareness among consumers of their rights, demands for better services, and competition in the automotive industry require constant innovation and service quality. Although trust has been identified in many marketing types of research, innovation and service quality cannot be included in the loyalty and satisfaction established without the faith of a brand. Therefore, this study specifically focuses on these two variables. This of course, is still within the framework of maintaining customer satisfaction and loyalty.

METHOD

This study is quantitative research. This study has two independent variables, one dependent variable, and one intervening variable. Independent variables in this study are product innovation (X1) and service quality (X2), the dependent variable in this study is customer loyalty, intervening variable in this study is customer satisfaction (Z). The population in this study is a Honda Motorcycle customer in Kampar regency. The sample selection using the Purposive Sampling method, the characteristics of the sampled respondents are (1) Motorcycle customers who have bought Honda motorcycles more than once. (2) Individuals over the age of 18. (3) Domiciled in Kampar Regency.

We measure this research with 15 indicators obtained from several existing research sources. Indicators are collected from 4 main variables, customer loyalty variable with four needles. Product innovation and customer satisfaction are three indicators, respectively. The last variable is the quality of service with five needles. Data were collected from questionnaires distributed in person and online using Google Forms. Responses to all questions were made on a Likert scale of 1-5 labeled "very satisfied" (1) and "very dissatisfied"(5).

INOVASI: Jurnal Ekonomi, Keuangan dan Manajemen Vol. 18 (1) 2022 | 31
Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri Ikas Miran, Pandu Adi Cakranegara, Asepma Hygi Prihastuti

Determination of the number of samples in this study using the Lemeshow formula. The number of samples obtained amounted to 96 respondents. Considering respondents who did not return the questionnaire and the answers were not valid, the researcher considered distributing 130 questionnaires. Results A total of 105 respondents returned their questionnaires, with a response rate of 80.7%. Of these, 67 (63.8%) respondents were male; 38 (36.2%) women. A total of 15 people (14.3%) were known to have used the Honda brand for <3 years, 37 people (35.2%) used a Honda motorcycle between 3-5 years, and 53 (50.5%) used the Honda brand >5 Years. In terms of educational background, 54 respondents (51.4%) had a bachelor’s degree, 24 (22.9%) had a diploma, and 27 (25.7%) had high school graduates.

Statistical analysis used to test the research hypothesis (Figure 1) uses the AMOS structural equation modeling. Several stages in the test include (1) Validity Test, used to test the validity of questionnaires or indicators, (2) Reliability Test, used to measure the consistency of questionnaires or research indicators. A variable is reliable if it has an Alpha value > 0.70. (3) Goodness of Fit test aims to see whether a sample data distribution follows the theoretical distribution or not. (4) The Sobel test aims to measure whether the correlation through the mediating variable can significantly become a mediator in the relationship.

RESULT AND DISCUSSION

The measurement model aims to assess the contribution of each indicator variable to represent the underlying constructs and measures how well the combination of a set of indicators represents the constructs (reliability and validity). Reliability measures the internal consistency of a formed variable indicator that shows the degree to which each indicator indicates a standard form (Ghozali, 2011). Two ways can be used, namely, construct reliability and variance extracted. For construct reliability, the cut-off value required is ≥0.70, while for variance extracted, the cut-off value required is ≥0.50 (Ghozali, 2011). following are the results of construct reliability and Average Variance Extracted (AVE) (Table 1).

![Figure 1. Research Framework](image)

Table 1. Validity and Reliability Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicators</th>
<th>Loading Factor</th>
<th>P-Value</th>
<th>Cronbach's Alpha</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Innovation (X1)</td>
<td>X1.1</td>
<td>0.822</td>
<td>***</td>
<td>0.822</td>
<td>0.811</td>
<td>0.589</td>
</tr>
<tr>
<td></td>
<td>X1.2</td>
<td>0.759</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X1.3</td>
<td>0.717</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service Quality (X2)</td>
<td>X2.1</td>
<td>0.839</td>
<td>***</td>
<td>0.949</td>
<td>0.934</td>
<td>0.739</td>
</tr>
<tr>
<td></td>
<td>X2.2</td>
<td>0.804</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.3</td>
<td>0.884</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.4</td>
<td>0.885</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>X2.5</td>
<td>0.882</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Satisfaction (Z)</td>
<td>Z1.1</td>
<td>0.781</td>
<td>***</td>
<td>0.843</td>
<td>0.845</td>
<td>0.645</td>
</tr>
<tr>
<td></td>
<td>Z1.2</td>
<td>0.776</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Z1.3</td>
<td>0.850</td>
<td>***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Loyalty (Y)</td>
<td>Y1.1</td>
<td>0.854</td>
<td>***</td>
<td>0.866</td>
<td>0.898</td>
<td>0.689</td>
</tr>
</tbody>
</table>

INOVASI: Jurnal Ekonomi, Keuangan dan Manajemen Vol. 18 (1) 2022 | 32
Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri Ikas Miran, Pandu Adi Cakranegara, Asepma Hygi Prihastuti

From Table 1, the value of the loading factor is > 0.50, which means each indicator is valid. The loading factor of 0.50 or more is considered strong enough validation to explain the latent construct (Hair, Black, Babin, & Anderson, 2010). Validity is also indicated by the value of Average Variance Extracted (AVE) > 0.50. In addition, validity can also be seen from the P-value < 0.05. It means all of the indicators in this study are valid.

Reliability is determined from Cronbach’s Alpha and Construct Reliability (CR) value. Table 1 shows the value of Cronbach’s Alpha of each variable > 0.70. A reliable variable if the Cronbach Alpha value is ≥ 0.70 (Ghozali, 2011). The value of CR > 0.70 also indicates reliability. It means all of the variables in this study are reliable.

The goodness of Fit Test Result

The structural model of this study is shown in the Goodness of Fit results are shown in Table 2. The structural model shows (table 2) the value of TLI, GFI, CFI, NFI, IFI, and RMSEA are fit. However, the value of Probability, GFI, and AGFI is marginal. This model is feasible to continue because the value of Probability, GFI, and AGFI almost reaches the recommended values (Hair et al., 2010). This means that this model is reasonably fit and feasible to use.

Hypothesis Test Result

The results of testing the hypotheses proposed in this study are briefly shown in table 3. The significance test, if it is related to the actual research, is concluded as follows

The Effect of Product Innovation on Customer Satisfaction

From the hypothesis test shown in table 3 P-Value of product innovation (X1) on customer satisfaction (Z) 0.000, the value is less than 0.05 (0.000 < 0.05) and the value of the critical ratio (t calculate) 3.401, the value greater than t table 1.984 (3.401 > 1.984). It means product innovation (X1) significantly affects customer satisfaction (Z).
Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri Ikas Miran, Pandu Adi Cakranegara, Asepma Hygi Prihastuti

This study indicates a significant effect of product innovation on customer satisfaction for Honda motorcycles in the Kampar Regency. This study is in line with the research results conducted by Antanegoro et al. (2017) and Diaw and Asare (2018), which state that product innovation significantly affects customer satisfaction. Product innovation can have a significant impact on customers. Satisfaction occurs when expectations are met or exceeded. Therefore, companies need to innovate services to meet and exceed their customers’ expectations. Innovation should come in an optional form, which will allow the customer to choose.

The Effect of Product Innovation on Customer Loyalty

Table 3 shows the P-Value of product innovation (X1) on customer loyalty (Y) 0.431, the value is greater than 0.05 (0.431 > 0.05) and the value of Critical Ratio (t calculate) -0.79, the value less than t table 1.984 (-0.79 < 1.984). It means product innovation (X1) does not significantly affect customer loyalty.

This study shows no significant effect of product innovation on customer loyalty for Honda motorcycles in Kampar Regency. The results of this study reject the results of research from Roring et al. (2014); Sinurat et al. (2017) that product innovation directly affects customer loyalty. This study supports the results conducted by Laemonta and Padmalia (2016), which state that product innovation has no significant effect on customer satisfaction.

The Effect of Service Quality on Customer Satisfaction

Service quality affects customer satisfaction for Honda motorcycle users in the Kampar Regency. From the hypothesis test shown in table 3 P-Value of product innovation (X1) on customer satisfaction (Z) 0.000, the value is less than 0.05 (0.000 < 0.05) and the value of the critical ratio (t calculate) 3.401, the value greater than t table 1.984 (3.401>1.984). It means product innovation (X1) significantly affects customer satisfaction (Z).

The higher the quality of service, the higher the satisfaction customers receive. Because the effect is significant, the service quality variable becomes a critical variable to consider in creating satisfaction with Honda. In order to monitor the quality of the services provided, Honda conducts regular and periodic surveys of its customers. The survey assesses the quality of Honda's products, services, and facilities compared to what customers expect. In addition, Honda also uses a consultant as a ghost shopper. They are assigned as buyers and see how the service provided by the salesperson is.

The results of this study are similar to those of Antanegoro et al. (2017), Laemonta and Padmalia (2016), and Sinurat et al. (2017) that service quality will affect customer satisfaction. Service quality is a powerful weapon in company excellence, especially companies service. Service quality is the trigger for the company's success on all fronts. Service quality is an obligation for both manufacturing and service companies. Quality services and satisfying customers need to be carried out continuously, even though the complaints received are relatively low. Because about 95% of dissatisfied consumers choose not to make a complaint, but most simply stop buying (Kotler, 2005).

The Effect of Service Quality on Customer Loyalty

The next hypothesis (H3) reads: "There is an influence between service quality on customer loyalty to Honda motorcycle customers. Base on table 3, P-Value of service quality (X2) on customer loyalty (Y) is 0.356, the value greater than 0.05 (0.356 > 0.05), and the value of critical ratio (t calculate) -0.92, the value less than t table 1.984 (-0.92 < 1.984). It means service quality (X2) has no significant direct effect on customer loyalty (Y).

This study indicates no direct effect of service quality on customer loyalty for Honda motorcycles in the Kampar Regency. The study results reject the previously proposed hypothesis, where service quality significantly affects customer loyalty (Putra and Ekawati, 2017; Laemonta and Padmalia,2016; and Sinurat et al., 2017). This study is in line with the research results conducted by Antanegoro et al. (2017) that service quality has no significant effect on customer loyalty. Empirically this is based on the assessment that the quality of service perceived by each customer is relative. So what is felt by one customer is not necessarily felt by other customers.

The Effect of Customer Satisfaction on Customer Loyalty

Based on the results of hypothesis testing shown in table 3, P-Value of customer satisfaction (Z) on customer loyalty (Y) 0.01; the value is less than 0.05 (0.01 < 0.05), and the value of the critical
ratio \((t \text{ calculate}) = 2.587\), the value greater than \(t \text{ table} = 1.984\) \((2.587 > 1.984)\). It means customer satisfaction \((Z)\) significantly affects customer loyalty \((Y)\).

This study shows a significant effect of customer satisfaction of Honda motorcycles on customer loyalty in Kampar Regency. The result of this study is in line with the result of research conducted by Nariswari and Iriawan (2012), Mahmud, Jusoff, and Hadjiah (2013), and Wijaya, Beik, and Sartono (2017) state that customer satisfaction has a significant effect on customer satisfaction. In general, satisfaction is a person's feeling of pleasure or disappointment that arises after comparing the performance (outcome) of the product being thought of against the expected performance (result). According to Kotler (2005), the challenge is not to produce satisfied customers. Some competitors can do that. The challenge is to produce happy and loyal customers. The loyalty of a company is strongly influenced by how the company satisfies customers. Thus, the key for the company to exist is its ability to retain its customers.

**Sobel Test Result**

To determine the indirect effect of variables in this study using the Sobel formula as in equations two and 3. Calculation of the Indirect Effect of Product Innovation Effect on Customer Loyalty through Customer Satisfaction can be seen in the following calculation:

\[
\begin{align*}
\text{Sobel Test Result}
\end{align*}
\]

Calculation of the effect of customer loyalty on customer loyalty through customer satisfaction can be seen in the following calculation:

From the results of the calculation of the Sobel test, it can be arranged into a table as shown in table 4.

**Table 4.**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Intervening Variable</th>
<th>Critical Ratio</th>
<th>(P)-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H6</td>
<td>Product Innovation</td>
<td>Customer Loyalty</td>
<td>Customer Satisfaction</td>
<td>2.001</td>
<td>0.048</td>
<td>Significant</td>
</tr>
<tr>
<td>H7</td>
<td>Service Quality</td>
<td>Customer Loyalty</td>
<td>Customer Satisfaction</td>
<td>2.182</td>
<td>0.031</td>
<td>Significant</td>
</tr>
</tbody>
</table>
The Effect of Product Innovation on Customer Loyalty through Customer Satisfaction

The sixth hypothesis proves a partial mediation effect of Consumer Satisfaction in the Effect of Product Innovation on Loyalty Consumer. This can be proven from the hypothesis test shown in table 4 P-Value of product innovation (X1) on customer loyalty (Y) through customer satisfaction is 0.048, the value is less than 0.05 (0.048 < 0.05), and the value of the critical ratio (t calculate) 2.001, the value greater than t table 1.984 (2.001 > 1.984).

The results of this study indicate that there is a significant effect of service quality on customer loyalty through customer satisfaction for Honda motorcycles in Kampar Regency. Loyal customers are significant for business continuity (46). Many companies use defensive marketing strategies to increase market share and profitability (52). Research in the last two decades investigated various definitions of loyalty (24). They argue that there must be a strong attitude and commitment from the company to continue to create quality products. One way to create quality products is through creative innovation activities. Most companies focus on managing customer satisfaction (3). Customer satisfaction cannot stand alone. Usually, satisfaction can be seen from consumer expectations of a given innovation. Therefore, customer satisfaction cannot be ruled out to gain customer loyalty through product innovation. Thus it can be concluded if the results of the sixth hypothesis, "there is a positive influence between product innovation and consumer loyalty through consumer satisfaction," are accepted. The result of this study is in line with the result of research conducted by Isnaeni (2016), Quintania and Sasmita (2020), and Mustamu and Ngatno (2021) state that there is an effect between product innovation and consumer loyalty through customer satisfaction.

The Effect of Service Quality on Customer Loyalty through Customer Satisfaction

Base on table 4, P-Value of service quality (X2) on customer loyalty (Y) through customer satisfaction is 0.031, the value less than 0.05 (0.031 < 0.05), and the value of critical ratio (t calculate) 2.182, the value greater than t table 1.984 (2.182 > 1.984). It means there is a significant effect of service quality (X2) on customer loyalty (Y) through customer satisfaction (Z).

The results of this study indicate that there is a significant effect of service quality on customer loyalty through customer satisfaction for Honda motorcycles in Kampar Regency. Service quality is all forms of service performed by an organization or company to meet customer needs and expectations. Service quality provides an impetus to strengthen the relationship between the company and its customers. These results support the results of research conducted by Sumertana (2016), Minh and Huu (2016), and Hidayat (2009), which state that service quality affects customer loyalty through customer satisfaction.

CONCLUSION

In summary, this paper finds a positive effect of product innovation and service quality on customer satisfaction. From this research, it is also known that there is no direct influence between product innovation and service quality on customer loyalty to Honda motorcycle users in the Kampar district. Another generated conclusion also promotes a positive influence between customer satisfaction and loyalty. Satisfied customers tend to be loyal to a brand. The long term will create a profitable relationship between the customer and the company. These findings allow managers to see the importance of product innovation and service quality in creating customer satisfaction. However, generating customer loyalty, product innovation, and service quality cannot stand alone. Customer satisfaction mediation is needed.

REFERENCES


Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri Ikas Miran, Pandu Adi Cakranegara, Asepma Hygi Prihastuti


Customer satisfaction mediates the effect of product innovation and service quality on customer loyalty

Saipul Al Sukri Ikas Miran, Pandu Adi Cakranegara, Asepma Hygi Prihastuti


