Analysis Factor and Its Impact on Online Shop
Customer Loyalty Lina Shop Surabaya

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Article History : Received : January 4, 2023 ; Accepted : March 5, 2023

ABSTRACT
This study aims to analyze the influence of security, electronic word of mouth (e-wom), complaints handling against customer satisfaction, and its impact on customer loyalty online shop Lina Shop Surabaya. Collecting data to support this research using a nonprobability sampling method with a purposive sampling approach to 85 respondents and filling the questionnaire. The method used is SEM. Based on the analysis results, it is concluded that security, e-wom, and complaint handling significantly affect customer satisfaction. E-wom and security have no significant effect on customer loyalty, complaint handling, and customer satisfaction have a significant effect on customer loyalty.

Keywords: Customer loyalty, complaint handling, customer satisfaction, e-wom, security

INTRODUCTION
The object of this author's research is Lina Shop. An online shopping store located at Prambanan housing complex block BA-11 Surabaya. Lina Shop is an online shop that sells children's pajama products, herbal medicines, and various kinds of cosmetic products, has a very wide network, and already has many customers from locally and abroad.

The importance of customers in the marketing world is undoubted, a loyal customer will be a valuable asset and provide positive feedback. One of the important factors for the continuity and growth of this business is to maintain customer loyalty.

The number of customers increases, the number of sales will increase, and building a good company image will lead to increased consumer loyalty to the company. The table below will explain Lina Shop's sales turnover for the period January - April 2023.

Table 1 Sales Turnover and Number of Lina Shop Buyers for the January - April 2023 Period

Vol. 4 No. 2 March 2023
Months | Omzet | Number of Buyers
--- | --- | ---
January | 54,548,400 | 3,275
February | 60,611,100 | 4,156
March | 55,979,800 | 4,453
April | 73,594,600 | 5,251

Source: Interview with Mrs. Hanny (owner of Lina Shop)

From the data in Table 1 above, it can be seen that there is a decrease and increase in sales turnover while the number of buyers continues to increase. The phenomenon that occurs must have a contributing factor. This makes the owner of Lina Shop feel restless because the turnover target is not met as expected. And table 2 below will explain the sales target of Lina Shop for the January – April 2023 period as follows:

**Table 2 Lina Shop Sales Turnover Target for January - April 2023 Period**

<table>
<thead>
<tr>
<th>Months</th>
<th>Sales Omzet Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>50,826,280</td>
</tr>
<tr>
<td>February</td>
<td>57,700,250</td>
</tr>
<tr>
<td>March</td>
<td>65,627,700</td>
</tr>
<tr>
<td>April</td>
<td>70,650,500</td>
</tr>
</tbody>
</table>

Source: Interview with Mrs. Hanny (owner of Lina Shop)

The increasing number of people doing business online through the internet makes competition tighter. For the online store to continue to survive, it is the owner of Lina Shop needs to knowers can affect this.

In online shopping, many consumers are still doubtful about the security system, this is because many online shop sellers commit fraud so people may also worry about transacting and paying online, fearing that their personal information may be stolen.

Definition of security from the customer's perspective in Prasetyo dan Widiyanto (2015)

Consumers expect their personal information shared on the website not to be viewed, stored, or manipulated by anyone other than the seller.

Security has a close relationship with customer trust and satisfaction to build long-term online relationships because it is associated with unwanted risks that can occur when shopping online. When someone gets satisfaction after transacting online because the security promised is as expected, this will turn into a big factor in expanding the intention to buy and can become a loyal customer.

With the increasing number of online shop businesses, alternative products, and brands available are increasingly varied. Many consumers look for references through opinions in online shop communities about a product. However, determining the choice of products and brands to be purchased is not easy for consumers (Riyandika, 2013).

Wom (Word Of Mouth) plays an important role in influencing the formation of consumer attitudes and behavior. Wom (Word Of Mouth) can have a very strong influence on the purchase of a product compared to other traditional communication media. With the increasing popularity of the internet, Wom (Word Of Mouth) evolved from a single,
unidirectional communication to a networked and dispersed communication (Yiling dan Xiaofen, 2009). And known as E-wom (Electronic Word Of Mouth).

E-wom (Electronic Word Of Mouth) is widely used by customers to explore information about a product (Reza Jalilvand dan Samiei, 2012). Information obtained through E-wom (Electronic Word Of Mouth) can be used as a consideration regarding information before purchasing products. When someone has got enough information about a product or item that is desired, buying interest will arise.

The occurrence of E-wom (Electronic Word Of Mouth) comes from the experience of consumers who have purchased and used a product or service. If they get satisfaction from their experience when consuming a product or service, then they will voluntarily make a statement about a product or service.

Many customers think that a reliable source of information is word of mouth. When the product produced by the company is bad, there will be negative E-wom (Electronic Word Of Mouth) behavior toward other people who will use the same product. Conversely, if the product is good, what will arise is positive E-wom (Electronic Word Of Mouth) behavior, one of which can be in the form of recommendations to friends to buy products at online shops where they are satisfied shopping.

E-wom (Electronic Word Of Mouth) that is positive will cause a desire for online shop visitors to be interested in buying because they have unconsciously been affected by the advice in E-wom (Electronic Word Of Mouth). And if after trying to get a good response, the consumer feels satisfied so he decides to buy the product or service repeatedly. Repeat or consistent purchases are commonly referred to as loyalty.

In addition to security factors and E-wom (Electronic Word Of Mouth), ease of complaint submission is necessary for customers and can affect loyalty. For companies, good handling of customer complaints is a very top priority.

Complaints that are resolved properly and make customers feel satisfied will be beneficial for the company because it has the opportunity to make customers use and buy back the finished product even greater. Conversely, poor handling of complaints to customers can destroy the image of the business slowly.

Customers who say about their complaints and get good handling tend to be more loyal than customers who don't say their complaints at all. To establish a close relationship with customers, the key lies in openness and communication, both for good things and in the form of complaints. Thus, customers will understand if the company is not only happy to get praise but also cares and wants to accept well the problems of customer complaints.

The problem formulation based on the background explanation above is as follows:

1. Is there a significant effect of security variables on customer loyalty to Lina Shop Surabaya?
2. Is there a significant influence of security variables on customer satisfaction at Lina Shop Surabaya?
3. Is there a significant influence of e-wom (electronic word of mouth) variables on customer satisfaction with Lina Shop Surabaya's online shop?
4. Is there a significant influence of e-wom (electronic word of mouth) variables on customer loyalty to Lina Shop Surabaya's online shop?
5. Is there a significant influence of complaint handling variables on customer satisfaction of Lina Shop Surabaya's online shop?
6. Is there a significant influence of complaint handling variables on customer loyalty to Lina Shop Surabaya's online shop?
7. Is there a significant influence of customer satisfaction variables on customer loyalty to Lina Shop Surabaya's online shop?

The objectives of this study are:
1. To analyze the significant effect of security variables on customer loyalty online shop Lina Shop Surabaya.
2. To analyze the significant effect of security variables on customer satisfaction with Lina Shop Surabaya's online shop.
3. To analyze the significant effect of e-wom (electronic word of mouth) variables on customer satisfaction with Lina Shop Surabaya's online shop.
4. To analyze the significant effect of e-wom (electronic word of mouth) variables on customer loyalty to online shop Lina Shop Surabaya.
5. To analyze the significant influence of complaint handling variables on customer satisfaction of Lina Shop Surabaya online shop.
6. To analyze the significant effect of complaint handling variables on customer loyalty to Lina Shop Surabaya's online shop.
7. To analyze the significant effect of customer satisfaction variables on customer loyalty online shop Lina Shop Surabaya.

Based on a review of the theoretical foundation and previous research, a research concept framework can be compiled as presented in the picture as follows:
Based on the framework of the research concept above, the hypothesis of this research is as follows:
H1: Security has a significant effect on customer loyalty.
H2: Security has a significant effect on customer satisfaction.
H3: E-wom (Electronic word of mouth) has a significant effect on customer satisfaction.
H4: E-wom (Electronic word of mouth) has a significant effect on customer loyalty.
H5: Complaints handling has a significant effect on customer satisfaction.
H6: Complaint handling has a significant effect on customer loyalty.
H7: Customer satisfaction has a significant effect on customer loyalty.

RESEARCH METHODS
This type of research uses a quantitative approach because it collects information using online questionnaires distributed to Lina Shop customers. The population in this study is customers who have bought Lina Shop products four times and obtained as many as 546
customers. The number of samples studied by 84 respondents was fulfilled to 85 respondents who were customers of Lina Shop.

Variables used include:
1. Dependent Variables
   A dependent variable is a variable that is described or influenced by an independent variable. The dependent variable in this study is customer loyalty (Y2).
2. Independent Variables
   An independent variable is a variable that affects another variable. Related to this study, the independent variables are as follows:
   \[ X_1 = \text{Security} \]
   \[ X_2 = \text{E-wom} \]
   \[ X_3 = \text{Complaint Handling} \]
3. Intervening Variables
   Intervening variables are variables that lie between the independent variable and the dependent variable and affect the relationship between the independent variable and the dependent variable into an indirect relationship. The intervening variable in this study was customer satisfaction (Y1).

### Table 3 Definisi Operasional

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Dependent</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 1  | Customer Loyalty (Y2) | The concept of customer loyalty is associated more with behavior than with attitude. When a person is a loyal customer, he exhibits buying behavior defined as nonrandom purchases expressed over time by some decision-making unit (Jill, 2005) | 1. Make purchases regularly.  
2. Buy interline products and services.  
3. Recommend products to others.  
4. Demonstrate immunity from the attractiveness of a product or service (Jill, 2005) |
|    | **Independent** |            |           |
| 2  | Security (X1) | Security is the ability of online stores to control and maintain security over data transactions (Park dan Kim, 2006) | 1. Data confidentiality.  
(Raman dan Viswanathan, 2011)  
2. Guaranteed transactions.  
3. Easy transactions through COD (Cash On Delivery) or transfer.  
4. Proof of transaction through the delivery receipt number.  
5. The image of an online seller.  
6. Product quality (Bigar Anung Anandita dan Dwi Saputra, 2015) |
<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
</tr>
</thead>
</table>
| 3  | E-Wom (X2) | E-wom is defined as either positive or negative statements made by prospective, current, and former customers, about a product or company, that are intentionally made to be heard or seen by many people and institutions through the medium of the Internet (Hennig-Thurau, et al, 2004) | 1. Platform Assistance (Hennig-Thurau, et al, 2004)  
2. Concern for Others  
3. Expressing Positive Feelings  
4. Helping The Company (Jeong dan Jang, 2011) |
| 4  | Complaint Handling (X3) | A company that handles complaints can turn complaining consumers into loyal customers. (Fornell dan Anderson, 2003) | 1. Empathy for angry customers  
2. Speed in complaints handling  
3. Fairness in solving complaints  
4. Ease for consumers to submit their complaints (Artanti dan Ferdyan, 2013) |

### Intervening

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Definition</th>
<th>Indicator</th>
</tr>
</thead>
</table>
| 5  | Customer Satisfaction (Y1) | Satisfaction is the degree to which the perceived performance of a product or service meets buyer expectations (Kotler, P., dan Keller, 2016) | 1. Product quality  
2. Quality of service  
3. Emotional  
4. Product price  
5. Cost and convenience (Lupiyoadi, 2001)  
6. Compliance with expectations  
7. Recommend a positive image of others. (Septya Nuraini dan Mudiantono, 2017) |

This research uses SEM (Structural Equation Modeling) approach. The smartPLS (Partial Least Square) software-based model, the reason is that it does not require sample randomization thus samples selected with non-probability approaches, such as purposive sampling can be used in PLSPLS-SEM. The minimum recommended sample size ranges from 30 to 100 cases (Haryono dan Parwoto, 2016).

Maruyama (1998) stated SEM is a statistical model that provides computational estimates of the strength of hypothetical relationships among variables in a theoretical model, either directly or through intervening or moderating variables.

Hypothesis testing will be done by bootstrapping to see t-statistics and p-values with a significant level of 5% (1.96). So the criteria for acceptance or rejection of the hypothesis are...
HA accepted and H0 rejected when the t-statistic shows > 1.96, and to reject or accept the hypothesis using probability values, Ha will be accepted if the p-value < 0.05.

RESULTS AND DISCUSSION
1. Result
   In this study, the data analysis technique used to test is the PLS data analysis technique using SmartPLS 3.0 Partial Least Square Software, the data tested is data that has been collected through questionnaires distributed to Lina Shop customers. The test carried out is by testing the outer model and inner model through the SmartPLS Algorithm method and bootstrapping.
   a. Evaluasi Model Pengukuran (Outer Model)
      Evaluation of measurement models (Outer Model) is used to measure the validity and reliability of the construct. Validity tests are carried out through Convergent Validity, Average Variance Extracted (AVE), and Discriminant Validity tests, while construct reliability tests are carried out through Cronbach's Alpha and Composite Reliability tests.
      After testing the data, the results of the SmartPLS algorithm test output are as follows:
b. Convergent Validity

The convergent validity of the outer model evaluation is seen from the correlation between the item/component score and the construct score that has been analyzed through PLS testing. To assess Convergent validity, the loading factor value > 0.7. The results of convergent validity in this study are:

**Table 4 Convergent Validity**

<table>
<thead>
<tr>
<th>Inner Loading</th>
<th>E-wom (X2)</th>
<th>Security (X1)</th>
<th>Customer Satisfaction (Y1)</th>
<th>Customer Loyalty (X2)</th>
<th>Complaint Handling (X3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1.1</td>
<td>0.616</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x1.2</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x1.3</td>
<td>0.827</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x1.4</td>
<td>0.883</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x1.5</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x1.6</td>
<td>0.925</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x2.1</td>
<td>0.889</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>x2.2</td>
<td>0.925</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Figure 2** Path Diagram of SmartPLS Analysis Results Algorithm
Source: data processing with SmartPLS 3.0
The results of data processing in Table 4 have many outer loading values between construct variables and latent variables > 0.70. But there are still some indicators that have an outer loading value of < 0.70. In the early stages of scale development, a loading value of 0.50 to 0.60 is still acceptable because it is considered valid enough to meet the convergent validity requirements.

So that all indicators in the study declared valid can be used for research and further analysis because the outer loading value of each indicator is > 0.50.

c. Average Variance Extracted (AVE) Value

The construct has good convergent validity if the AVE value exceeds 0.50. The result of the AVE value is.

Table 5 Nilai Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Wom (X2)</td>
<td>0.834</td>
</tr>
<tr>
<td>Security (X1)</td>
<td>0.576</td>
</tr>
<tr>
<td>Customer Satisfaction (Y1)</td>
<td>0.646</td>
</tr>
<tr>
<td>Customer Loyalty (Y2)</td>
<td>0.661</td>
</tr>
<tr>
<td>Complaint Handling (X3)</td>
<td>0.648</td>
</tr>
</tbody>
</table>

Based on table 5 the analysis results show an AVE value of ≥ 0.50 for all variables, namely 0.834; 0.576; 0.646; 0.661; 0.648. And it can be concluded that all variables are declared valid and acceptable as measures of the latent variables of the study.

d. Discriminant Validity
The discriminant validity test can be seen from the cross-loading value of each indicator. The results of testing discriminant validity through PLS can be explained in the following table below:

**Table 6 Cross Loadings**

<table>
<thead>
<tr>
<th>Cross Loadings</th>
<th>E-Wom (X2)</th>
<th>Security (X1)</th>
<th>Customer Satisfaction (Y1)</th>
<th>Customer Loyalty (Y2)</th>
<th>Complaint Handling (X3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>x1.1</td>
<td>0,392</td>
<td>0,616</td>
<td>0,285</td>
<td>0,398</td>
<td>0,296</td>
</tr>
<tr>
<td>x1.2</td>
<td>0,419</td>
<td>0,769</td>
<td>0,386</td>
<td>0,512</td>
<td>0,472</td>
</tr>
<tr>
<td>x1.3</td>
<td>0,506</td>
<td>0,827</td>
<td>0,536</td>
<td>0,523</td>
<td>0,494</td>
</tr>
<tr>
<td>x1.4</td>
<td>0,490</td>
<td>0,682</td>
<td>0,365</td>
<td>0,387</td>
<td>0,289</td>
</tr>
<tr>
<td>x1.5</td>
<td>0,606</td>
<td>0,863</td>
<td>0,689</td>
<td>0,618</td>
<td>0,602</td>
</tr>
<tr>
<td>x1.6</td>
<td>0,576</td>
<td>0,769</td>
<td>0,691</td>
<td>0,640</td>
<td>0,715</td>
</tr>
<tr>
<td>x2.1</td>
<td>0,889</td>
<td>0,620</td>
<td>0,475</td>
<td>0,412</td>
<td>0,437</td>
</tr>
<tr>
<td>x2.2</td>
<td>0,925</td>
<td>0,581</td>
<td>0,544</td>
<td>0,483</td>
<td>0,497</td>
</tr>
<tr>
<td>x2.3</td>
<td>0,927</td>
<td>0,602</td>
<td>0,620</td>
<td>0,535</td>
<td>0,536</td>
</tr>
<tr>
<td>x2.4</td>
<td>0,910</td>
<td>0,640</td>
<td>0,601</td>
<td>0,538</td>
<td>0,579</td>
</tr>
<tr>
<td>x3.1</td>
<td>0,459</td>
<td>0,518</td>
<td>0,629</td>
<td>0,672</td>
<td>0,816</td>
</tr>
<tr>
<td>x3.2</td>
<td>0,491</td>
<td>0,705</td>
<td>0,652</td>
<td>0,595</td>
<td>0,767</td>
</tr>
<tr>
<td>x3.3</td>
<td>0,402</td>
<td>0,401</td>
<td>0,524</td>
<td>0,558</td>
<td>0,799</td>
</tr>
<tr>
<td>x3.4</td>
<td>0,463</td>
<td>0,509</td>
<td>0,625</td>
<td>0,643</td>
<td>0,837</td>
</tr>
<tr>
<td>y1.1</td>
<td>0,451</td>
<td>0,562</td>
<td>0,768</td>
<td>0,639</td>
<td>0,630</td>
</tr>
<tr>
<td>y1.2</td>
<td>0,417</td>
<td>0,556</td>
<td>0,822</td>
<td>0,632</td>
<td>0,611</td>
</tr>
<tr>
<td>y1.3</td>
<td>0,501</td>
<td>0,579</td>
<td>0,845</td>
<td>0,716</td>
<td>0,675</td>
</tr>
<tr>
<td>y1.4</td>
<td>0,570</td>
<td>0,530</td>
<td>0,840</td>
<td>0,746</td>
<td>0,655</td>
</tr>
<tr>
<td>y1.5</td>
<td>0,465</td>
<td>0,536</td>
<td>0,781</td>
<td>0,579</td>
<td>0,533</td>
</tr>
<tr>
<td>y1.6</td>
<td>0,462</td>
<td>0,586</td>
<td>0,777</td>
<td>0,629</td>
<td>0,520</td>
</tr>
<tr>
<td>y1.7</td>
<td>0,603</td>
<td>0,533</td>
<td>0,790</td>
<td>0,661</td>
<td>0,624</td>
</tr>
<tr>
<td>y2.1</td>
<td>0,544</td>
<td>0,605</td>
<td>0,761</td>
<td>0,771</td>
<td>0,549</td>
</tr>
<tr>
<td>y2.2</td>
<td>0,410</td>
<td>0,555</td>
<td>0,643</td>
<td>0,819</td>
<td>0,718</td>
</tr>
<tr>
<td>y2.3</td>
<td>0,471</td>
<td>0,626</td>
<td>0,714</td>
<td>0,895</td>
<td>0,655</td>
</tr>
<tr>
<td>y2.4</td>
<td>0,322</td>
<td>0,460</td>
<td>0,531</td>
<td>0,762</td>
<td>0,577</td>
</tr>
</tbody>
</table>

Source: Data processing with SmartPLS 3.0

Table 6 above explains that the results of cross-loadings from the variables of security, e-wom, complaint handling, customer satisfaction, and customer loyalty with indicators are higher than the correlation of indicators with other variables. Thus all indicators in each variable in this study have met the requirements of discriminant validity.

e. Construct Reliability

Construct reliability tests are measured using Cronbach’s alpha and composite reliability. The construct can be said to be reliable if the value of composite reliability and Cronbach’s alpha > 0.70. The results of Cronbach’s alpha and composite reliability values are.

**Table 7 Cronbach’s alpha and Composite Reliability**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Wom (X2)</td>
<td>0,934</td>
<td>0,953</td>
</tr>
<tr>
<td>Security (X1)</td>
<td>0,853</td>
<td>0,889</td>
</tr>
</tbody>
</table>
Based on Table 7 the results of Cronbach's alpha and composite reliability output values of the variables Security, E-wom, Complaint Handling, Customer Satisfaction, and Customer Loyalty > 0.70 which means that the five variables have a high and good level of reliability.

f. Structural Model Evaluation (Inner Model)

To assess structural models with PLS by looking at the value of R-Square. The R-Square value is a test of the model's goodness fit. Changes in R-Square values are used to explain the effect of certain exogenous latent variables on endogenous latent variables. R-square values of 0.75, 0.50, and 0.25 can be tried that the model is strong, moderate, and weak. The results of the PLS R-Squares analysis can be seen in this table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction (Y1)</td>
<td>0,652</td>
<td>moderate</td>
</tr>
<tr>
<td>Customer Loyalty (Y2)</td>
<td>0,741</td>
<td>moderate</td>
</tr>
<tr>
<td>Average</td>
<td>0,696</td>
<td>moderate</td>
</tr>
</tbody>
</table>

Table 8 above explains that the magnitude of the influence of security, e-wom, and complaint handling on customer satisfaction was 65.2% while the magnitude of the influence of security, e-wom, and complaint handling on customer loyalty was 74.1%.

Based on the R-square value of each variable, an average value of 0.696 was obtained where the model in this study was categorized as moderate. To calculate GoF is as follows:

\[
\text{GoF} = \sqrt{\text{communality} \times R^2}.
\]

Where the recommended average communality is 0.50 (Fornel and Larcker, 1981) and the average R-square is 0.696, the resulting GoF value is 0.589 and is categorized as large.

The goodness of fit can also be judged by knowing the value of the Q-square. The higher the Q-square value, the better / fit the model. The result of calculating the Q-square value is:

\[
Q^2 = 1 - (1-R_1^2)(1-R_2^2)
\]

\[
= 1 - (1-0,652)(1-0,741)
\]

\[
= 1 - (0,348)(0,259)
\]

\[
= 1 - 0,090
\]

\[
= 0.91
\]

From the calculation of Q-square predictive relevance, a value of 0.91 is obtained. This can mean that the amount of diversity obtained from research data that can be explained by the research model is 91% and the remaining 9% is explained by other factors that are outside this research model. From these pioneered results, this research model has good goodness of fit.
g. Hypothesis Testing

Hypothesis testing is performed using bootstrapping testing. After the bootstrapping process is carried out and the output results obtained are as follows:

![Path Diagram After Bootstrapping Analysis](image)

**Figure 3** Path Diagram After Bootstrapping Analysis

Source: data processing with SmartPLS 3.0

The criterion for acceptance or rejection of the hypothesis is that HA is accepted when the t-statistic shows > 1.96 and if the p-value < 0.05. If it does not meet these criteria, the HO is rejected. The results of the Path Coefficient on the SmartPLS bootstrapping output can be seen in the following table:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Wom (X2) -&gt; Customer Satisfaction (Y1)</td>
<td>0.179</td>
<td>0.182</td>
<td>0.081</td>
<td>2.219</td>
<td>0.027</td>
</tr>
<tr>
<td>E-WOM (X2) -&gt; Customer Loyalty (Y2)</td>
<td>-0.066</td>
<td>-0.060</td>
<td>0.084</td>
<td>0.779</td>
<td>0.436</td>
</tr>
<tr>
<td>Security (X1) -&gt; Customer Satisfaction (Y1)</td>
<td>0.236</td>
<td>0.243</td>
<td>0.093</td>
<td>2.525</td>
<td>0.012</td>
</tr>
<tr>
<td>Security (X1) -&gt; Customer Loyalty (Y2)</td>
<td>0.197</td>
<td>0.194</td>
<td>0.109</td>
<td>1.811</td>
<td>0.071</td>
</tr>
<tr>
<td>Customer Satisfaction (Y1) -&gt; Customer Loyalty (Y2)</td>
<td>0.504</td>
<td>0.497</td>
<td>0.106</td>
<td>4.770</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Complaint Handling (X3) -> Customer Satisfaction (Y1) | 0.500 | 0.494 | 0.094 | 5.333 | 0.000
Complaint Handling (X3) -> Customer Loyalty (Y2) | 0.293 | 0.298 | 0.111 | 2.637 | 0.009

Source: Data processing with SmartPLS 3.0

Based on the data in Table 9 above, the results of the analysis of questionnaire data through SmartPLS 3.0 concluded that the security variables and e-wom had an insignificant effect on customer loyalty based on the value of t-statistics < 1.96 and P value > 0.05.

As for security variables, e-wom and complaint handling have a significant effect on customer satisfaction, and complaint handling variables and customer satisfaction also have a significant effect on other customer loyalty because the value of the t-statistic > 1.96 and P value < 0.05.

h. Hypothesis Testing Results

1) First Hypothesis
The first hypothesis is "There is a significant effect of security variables on customer loyalty". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security (X1) -&gt; Customer Loyalty (Y2)</td>
<td>0.197</td>
<td>0.194</td>
<td>0.109</td>
<td>1.811</td>
<td>0.071</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Based on Table 10 states that the first hypothesis is rejected. The table above concludes that security has no significant effect on customer loyalty because the T-statistics value < 1.96 which is 1.811 and the p-value > 0.05 which is 0.071.

2) Second Hypothesis
The second hypothesis is "There is a significant effect of security variables on customer satisfaction". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security (X1) -&gt; Customer Satisfaction (Y1)</td>
<td>0.236</td>
<td>0.243</td>
<td>0.093</td>
<td>2.525</td>
<td>0.012</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Based on Table 11 states that the second hypothesis is accepted. The table above concludes that security has a significant effect on customer satisfaction because the T-statistics value > 1.96 which is 2.525 and the p-value < 0.05 which is 0.012.

3) Third hypothesis
The third hypothesis is "There is a significant effect of e-wom variables on customer satisfaction". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Wom (X2) -&gt; Customer Satisfaction (Y1)</td>
<td>0.179</td>
<td>0.182</td>
<td>0.081</td>
<td>2.219</td>
<td>0.027</td>
</tr>
</tbody>
</table>
Source: data processing with SmartPLS 3.0

Based on table 12 states that the third hypothesis is accepted. The table above concludes that e-wom has a significant effect on customer satisfaction because the T-statistics value > 1.96 which is 2.219 and the p-value < 0.05 which is 0.027.

4) Fourth Hypothesis
The fourth hypothesis is "There is a significant effect of e-wom variables on customer loyalty". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Wom (X2) -&gt; Customer Loyalty (Y2)</td>
<td>-0.066</td>
<td>-0.060</td>
<td>0.084</td>
<td>0.779</td>
<td>0.436</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Table 13 states that the fourth hypothesis is rejected. The table above concludes that e-wom has no significant effect on customer loyalty because the T-statistics value < 1.96 which is 0.779 and the p-value > 0.05 which is 0.436.

5) Fifth Hypothesis
The fifth hypothesis is "There is a significant effect of complaint handling variables on customer satisfaction". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complaint Handling (X3) -&gt; Customer Satisfaction (Y1)</td>
<td>0.500</td>
<td>0.494</td>
<td>0.094</td>
<td>5.333</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Based on table 14 states that the fifth hypothesis is accepted. The table above concludes that complaint handling has a significant effect on customer satisfaction because the T-statistics value > 1.96 which is 5.333 and the p-value < 0.05 which is 0.000.

6) Sixth Hypothesis
The sixth hypothesis is "There is a significant effect of complaint handling variables on customer loyalty". The results of the analysis test can be seen in the table below:

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complaint Handling (X3) -&gt; Customer Loyalty (Y2)</td>
<td>0.293</td>
<td>0.298</td>
<td>0.111</td>
<td>2.637</td>
<td>0.009</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Based on table 15 the fifth hypothesis is accepted. The table above concludes that complaint handling has a significant effect on customer loyalty because the T-statistics value > 1.96 which is 2.637 and the p-value < 0.05 which is 0.009.

7) Seventh Hypothesis
The seventh hypothesis is "There is a significant effect of customer satisfaction variables on customer loyalty". The results of the analysis test can be seen in the table below:

**Table 16 Test the Seventh Hypothesis**

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Original Sample (O)</th>
<th>Mean</th>
<th>STDEV</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Satisfaction (Y1) -&gt; Customer Loyalty (Y2)</td>
<td>0.504</td>
<td>0.497</td>
<td>0.106</td>
<td>4.770</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: data processing with SmartPLS 3.0

Based on table 16 states that the seventh hypothesis is accepted. The table above concludes that customer satisfaction has a significant effect on customer loyalty because the T-statistics value > 1.96 which is 4.770 and the p-value < 0.05 which is 0.000.

2. Discussion

Hypothesis testing will be done by bootstrapping to see t-statistics and p-values with a significant level of 5% (1.96). So that the criteria for acceptance or rejection of the hypothesis are that HA is accepted and H0 is rejected when the t-statistic shows > 1.96, and to reject or accept the hypothesis using probability values, Ha will be accepted if the p-value < 0.05.

a. The Effect of Security (X1) on Customer Satisfaction (Y1) and Customer Loyalty (Y2)

The results of testing the hypothesis of the effect of security on customer satisfaction can be concluded that the security variable (X1) has a significant effect on customer satisfaction (Y1). This is indicated by the T-statistics value > 1.96 which is 2.525 and the p-value < 0.05 which is 0.012.

The results of this study are by previous research from Hendraningtiyas and Soediono (2015) which states that security has a positive and significant effect on customer satisfaction.

While the results of testing the hypothesis of the effect of security on customer loyalty can be concluded that the security variable (X1) has no significant effect on customer loyalty (Y2). This is indicated by the T-statistics value < 1.96 which is 1.811 and the p-value > 0.05 which is 0.071.

The results of this study do not match the previous research of Ilham et al. (2016) which states that security has a positive and significant effect on customer loyalty. The security referred to in the context of this study is about customers’ data.

When shopping online, consumers are asked to provide their personal information such as name, address, as well as information about their credit card, etc. This information can be misused for fraud, and because of this consumers need guaranteed data security when making transactions.

For this reason, Lina Shop must be able to convince customers about the safety of Lina Shop by using a persuasive approach that aims to change or influence customer beliefs, attitudes, and behavior.

Assuring customers that Lina Shop is a reliable, trusted online shop and guarantees the security of transactions and customer data that buys Lina Shop products so that customers continue to shop at Lina Shop and become loyal customers.

b. The Effect of E-wom (X2) on Customer Satisfaction (Y1) and Customer Loyalty (Y2)
The results of testing the hypothesis of the effect of e-wom on customer satisfaction can be concluded that the variable e-wom (X2) has a significant effect on customer satisfaction (Y1). This is indicated by the T-statistics value > 1.96 which is 2.219 and the p-value < 0.05 which is 0.027.

The results of this study do not match the previous research of Setiawan et al. (2014) which states that e-wom has no significant effect on satisfaction. The same results are also concluded by the research of Sang Putu Angga Mahendra Putra (2017) that the influence of e-wom on tourist satisfaction is more effective/strong/large when going through destination images than if directly.

This can mean that the author succeeded in proving that the e-wom hypothesis has an insignificant effect on customer satisfaction as concluded by the study by Setiawan et al. (2014) and Sang Putu Angga Mahendra Putra (2017) in the context of research with the object of research, online shops are not tested for truth.

While the results of testing the hypothesis of the effect of e-wom on customer loyalty can be concluded that the variable e-wom (X2) has no significant effect on customer loyalty (Y2). This is indicated by the T-statistics value < 1.96 which is 0.779 and the p-value > 0.05 which is 0.436.

The results of this study are not by previous studies from Sang Putu Angga Mahendra Putra (2017) which state the effect of e-WOM on tourist loyalty is no more effective/strong/large when through satisfaction than if directly in other words e-WOM has a significant direct effect on customer loyalty.

For this reason, Lina Shop must be able to create a good e-wom about Lina Shop by improving the image and reputation of Lina Shop, this can be done by serving customers well and product quality is further improved so that customers who buy Lina Shop products feel satisfied.

Satisfied customers will spread good and positive e-wom about Lina Shop and potentially become loyal customers. E-wom that has spread will make Lina Shop more known and also have many new customers.

c. The Effect of Complaint Handling (X3) on Customer Satisfaction (Y1) and Customer Loyalty (Y2)

The results of testing the hypothesis of the effect of complaint handling on customer satisfaction can be concluded that the complaint handling variable (X3) has a significant effect on customer satisfaction (Y1). This is indicated by the T-statistics value > 1.96 which is 5.333 and the p-value < 0.05 which is 0.000.

While the results of testing the hypothesis of the effect of complaint handling on customer loyalty can be concluded that the complaint handling variable (X3) has a significant effect on customer loyalty (Y2). This is indicated by the T-statistics > 1.96 which is 2.637 and the p-value < 0.05 which is 0.009.

The results of this study are by previous research from Anindhyta Budiarti (2011) which states that the handling of complaints has a positive and significant effect on customer satisfaction.
d. **The effect of customer satisfaction (Y1) on customer loyalty (Y2)**

The results of testing the hypothesis of the effect of customer satisfaction on customer loyalty can be concluded that the customer satisfaction variable (X2) has a significant effect on customer loyalty (Y1). This is indicated by the value of the T-statistics value > 1.96 which is 4.770 and the p-value value < 0.05 which is 0.000.

Ruiying Cai and Christina Geng-Qing Chi (2018) Expressed satisfaction with the complaint resolution process has a positive and significant impact on loyalty. This shows that a significant positive impact on customer satisfaction has an impact on customer loyalty, this is the hypothesis proposed by the author.

**CONCLUSION**

Based on the results of the analysis that has been carried out and the discussion described in this study, the conclusions obtained are as follows:

1. The security variable has a calculated T-statistics value of < 1.96 which is 1.811 and a p-value of > 0.05 which is 0.071. The results of the research hypothesis concluded that security variables had no significant effect on customer loyalty to the Lina Shop online shop.

2. The security variable has a calculated T-statistics value of > 1.96 which is 2.525 and a p-value of < 0.05 which is 0.012. The results of the research hypothesis concluded that security variables have a significant effect on customer satisfaction with Lina Shop online shop. The better the security obtained by customers, the more customer satisfaction increases.

3. The e-wom variable has a calculated T-statistics value of > 1.96 which is 2.219 and a p-value value of < 0.05 which is 0.027. The results of the research hypothesis concluded that the e-wom variable had a significant effect on customer satisfaction with the Lina Shop online shop. The better the e-wom obtained by customers, the more customer satisfaction increases.

4. The e-wom variable has a calculated T-statistics value of < 1.96 which is 0.779 and a p-value of > 0.05 which is 0.436. The results of the research hypothesis concluded that the e-wom variable had no significant effect on customer loyalty to the Lina Shop online shop.

5. The complaint handling variable has a T-statistics value of > 1.96 which is 5.333 and a p-value of < 0.05 which is 0.000. The results of the research hypothesis concluded that the variable of complaints handling had a significant effect on customer satisfaction with the Lina Shop online shop.

6. The security variable has a calculated value of T-statistics value > 1.96 which is 2.637 and a p-value value of < 0.05 which is 0.009. The results of the research hypothesis concluded that security variables have a significant effect on customer satisfaction with Lina Shop online shop. The better the handling of complaints obtained by customers, the more customer satisfaction increases.

7. The complaint handling variable has a T-statistics calculated value of > 1.96 which is 4.770 and a p-value of < 0.05 which is 0.000. The results of the research hypothesis concluded
that the variable of complaints handling had a significant effect on customer loyalty to the Lina Shop online shop. The better the handling of complaints obtained by customers, the more customer loyalty increases.

The advice that the author can give based on the conclusions of the research results on the effect of security, e-wom, and complaints handling on customer satisfaction and its impact on customer loyalty of the Lina Shop online shop is as follows:

1. Lina shop in the handling of customer complaints must be even better than before, considering that the variables of complaints handling have the most influence in terms of getting online shop customer satisfaction and loyalty. Handling customer complaints promptly, quickly, intelligently, and precisely because good complaint handling can be used as an opportunity not to lose customers, as well as get new customers. Show customers that Lina Shop is a responsible online shop and always listens to what customers need.

2. Lina Shop must also pay attention to the problem of customer satisfaction, by improving the quality of service and products to remain able to compete with other online shops in terms of meeting customer expectations. Customers who are satisfied with Lina Shop's services and products have the opportunity to spread positive information about Lina Shop's image and reputation as an online shop. This will make Lina Shop more known and customers who buy Lina Shop products will increase.

3. With the increasing number of online shop stores, and increasing public knowledge of online buying and selling activities, it will automatically increase online buying and selling transactions. The security factor is the main obstacle in making online transactions. Security assurance plays an important role in trust building. Lina Shop must be able to provide security guarantees to maintain and make loyal customers or new customers believe that Lina Shop is the best choice to choose as a safe online shop store for transactions.

4. For future researchers who choose the same topic, it is advisable to conduct research by increasing the number of samples, as well as examining other variables or adding other variables because there are still many factors that affect customer satisfaction and loyalty that have not been studied in this study.

REFERENCES


