THE EFFECT OF E-SERVICE QUALITY AND E-PERCEIVED VALUE ON E-CUSTOMER LOYALTY WITH E-CONVENIENCE AS A MEDIATING VARIABLE

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ABSTRACT
At this time the digital pharmacy industry is experiencing very rapid development, this can be seen from the increase in online pharmacy applications. Kimia Farma Mobile is one of the online pharmacy applications that is widely discussed in various pharmaceutical industries, besides that Kimia Farma Mobile was able to reach more than 900,000 users with a 4-star rating and also occupied the third position in the list of health applications in Indonesia in July 2022. This study aims to examine the effect of e-service quality and e-perceived value on e-customer loyalty with e-convenience as a mediating variable. This study uses quantitative research methods. Respondents in this study were Kimia Farma Mobile customers who had made transactions more than once. This study obtained 201 samples distributed via Whatsapp messages to customers. The data in this study were analyzed using SEM-PLS through the SmartPLS 3 program. The results of this study indicate that all hypotheses are accepted and significant, but e-service quality is not significant to e-customer loyalty.

Keywords: E-Service Quality, E-Perceived Value, E-Customer Loyalty, E-Convenience

INTRODUCTION
Currently, e-commerce in Indonesia is a trend that is of concern to business people, this can be seen from data from the Central Statistics Agency, (2019). In Indonesia, the increase in the e-commerce industry reached 17 percent with a total of 26.2 million businesses in the last 10 years (Rahayu, 2019). Electronic commerce (E-commerce) is a type of sales transaction, purchase, or exchange of products and services through digital systems or computer networks (Rahma Putra, 2020). In this era, it can be said that e-commerce is excellent for buying and selling. This happened because of changes in consumption patterns and people's habits in shopping. What used to be goods must be obtained in conventional markets, can now be easily and quickly obtained in e-commerce (Bhatti & Akram, 2020). This change in consumption patterns and habits of the community has not escaped the increasing number of health facilities that have also spread to the digital world. With the digitalization of pharmacies, customers or patients can shop for medical needs very easily and quickly just by using a mobile phone. Pharmaceutical service activities by online are also known as telepharmacy.

One of the health support service facilities is Kimia Farma Apotek, which has a role as a retail company for pharmaceutical goods, whose commodities consist of pharmaceutical supplies (drugs and medicinal materials) and health supplies, as well as a place to obtain health information that can be accessed via offline or online. Kimia Farma with 10 production facilities, 49 distributors, 1,278 pharmacies, 451 health clinics, 3 beauty clinics, 75 clinical laboratories spread throughout Indonesia. Making it a company with integrated health services (Kimia Farma, 2022). Of the many Kimia Farma Business Units in Indonesia, Kimia Farma in the Denpasar Business Unit is a strong attraction for researchers. In this study, it will be taken...
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from the population of Kimia Farma Denpasar Business Unit. The growth of the tourism industry on the island of Bali, especially Denpasar, has become the center of business activities, and has placed this island as an area that has high per capita income and growth. So this is the reason researchers take the sample population in the area (Tarubali.baliprov.go.id, n.d.).

Kimia Farma Apotek already has a telepharmacy system and pharmacy e-commerce as an effort to adjust to market conditions in Indonesia. Kimia Farma Mobile comes with interesting and complete features that can be accessed by all Indonesian people. According to data from play.google.com access accessed in July 2022, there was a very significant decrease in the Kimia Farma Mobil application rating in early 2021 from 4.7 to July 2022 reaching 4.0. Kimia Farma Mobile customer loyalty is one of the focal points of the rating decline. The digitalization of systems in all sectors has made the assessment of customer loyalty in the Kimia Farma Mobile application electronic or called e-customer loyalty. E-customer loyalty is defined as a favorable attitude of customers towards electronic businesses that result in repeat purchase behavior. Customer loyalty is needed, because loyal customers will actively promote, provide recommendations to family friends and people closest to them so that they make the product their first choice and do not easily move (Hansopaheluwanakan, 2021).

Currently, customers can switch to products or services according to what they want and need through information that can be accessed widely with ease. Therefore, the company must focus on improving e-service quality. E-Service Quality is defined as the development of a site's capability in realizing the effectiveness and efficiency of shopping facilities, purchasing and product distribution (Parsu & Arvind, 2005). E-service quality broadly covers all types of customer interactions with a website that facilitates the shopping, purchasing and delivery processes (Zhang & Huang, 2018).

Customers have different reasons for determining which product or service to choose. The value of the benefits of a product or service is also one of the factors considered by customers. It is in this era of digitalization that online perceived value is considered. Perceived value can be defined as consumers perceive by comparing the benefits and sacrifices of online retail activities where shopping sites strive to build long-term relationships with consumers by providing valuable services to them, sellers strive to maintain long-term and stable relationships with buyers and receive regular requests, while buyers try to reduce their purchase costs through this value creation process and obtain innovative and reliable products (Ritter & Walter, 2012).

Several studies have been conducted regarding the relationship between the effect of e-service quality on e-customer loyalty and show significant results (Haq & Awan, 2020; Kaya et al., 2019; Mashaqi et al., 2020; Pradnyaswari & Aksari, 2020; Wilis & Nurwulandari, 2020). However, there are also studies that found insignificant results (Gotama & Indarwati, 2019; Juwaini et al., 2022; Pratiwi et al., 2021). Other research has been conducted regarding the relationship between the effect of e-perceived value on e-customer loyalty and shows significant results (Ciputra & Prasetya, 2020; Sabrang et al., 2021) However, there are also studies that find insignificant results (Kusumawati & Rahayu, 2020; Tumewah & Kurniawan, 2020; Wirtz, 2012). With the inequality of results in these studies, researchers are interested in further analyzing the relationship between the influence of e-service quality and e-customer loyalty. In addition, the influence of e-perceived value and e-customer loyalty by adding a mediating variable, namely e-convenience.
The research gap creates a gap between the influence of e-service quality and e-perceived value on e-customer loyalty, so it is necessary to conduct further research related to the effect of e-service quality and e-perceived value on e-customer loyalty with e-convenience as a mediating variable. Because the increasing convenience of customers in shopping and making transactions in an e-commerce can affect customer loyalty to things related to the company. One of them is in terms of quality and value of benefits felt by customers. This research is expected to explain the role of e-convenience in mediating e-service quality and e-perceived value on e-customer loyalty.

METHOD

The type of research used in the study uses quantitative data. Quantitative research is an approach that can test objective theories by testing the relationship of its variables (Creswell & Poth, 2016). This research focuses on the cause-and-effect relationship between several situations described in the variables which will then be drawn into a conclusion. This research focuses on Kimia Farma Mobile users at Kimia Farma Pharmacy Denpasar Business Unit. The population of this study is not known with certainty and the opportunity for each individual to be sampled is not the same, so in this study a non-probability sampling technique was used. Non-probability techniques with a purposive sampling approach were used in this study because there were certain criteria that were adjusted to the research objectives. The criteria used to select respondents in this study are Kimia Farma Mobile customers who have made transactions more than once, are at least 17 years old, and live in Bali. This study obtained 201 samples which were distributed via Whatsapp messages to customers. The data in this study were analyzed using SEM-PLS through the SmartPLS 3 program.

RESULTS AND DISCUSSION

Result

Determination Coefficient Test ($R^2$)

The coefficient of determination test aims to see the strong and weak influence of exogenous variables on endogenous variables. The interpretation of the $R^2$ value of 0.25 indicates a weak model, a value of 0.50 indicates a medium model and a value of 0.75 indicates a substantial model (Hair Jr et al., 2014). The following coefficient of determination test results can be seen in table 1.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Value $R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Customer Loyalty</td>
<td>0.720</td>
</tr>
<tr>
<td>E-Convenience</td>
<td>0.706</td>
</tr>
</tbody>
</table>

Source: processed research data (2022)

Based on table 1, the results of the coefficient of determination ($R^2$) test show that the e-customer loyalty variable has an $R^2$ value of 0.720, which means that the e-convenience variable is able to explain the e-customer loyalty variable by 72% and the rest is explained by variables outside this research model. Furthermore, the e-convenience variable has an $R^2$ value of 0.706, which means that the e-customer loyalty variable is able to explain the e-
convenience variable by 70.6% and the rest is explained by variables outside this research model.

**Predictive Relevance Test ($Q^2$)**

The predictive relevance test aims to measure how good the observed value resulting from the research model is. The $Q^2$ value ranges from 0 to 1, where if the $Q^2$ value approaches a value of 1, it means that the research model is getting better. The strength or weakness of a model based on the $Q^2$ value is determined based on the criteria of 0.35 (strong), 0.15 (moderate) and 0.02 (weak). The results of the $Q^2$ calculation can be seen using the following formula.

$$Q^2 = 1 - (1 - R_1^2)(1 - R_2^2)$$
$$Q^2 = 1 - (1 - 0.720)(1 - 0.706)$$
$$Q^2 = 1 - (0.280)(0.294)$$
$$Q^2 = 1 - 0.08232$$
$$Q^2 = 0.91768$$

Based on the results of the above calculations, the value $Q^2$ se large 0.91768 which means that this research model has a predictive relevance of 91.8%, while the rest is explained by other variables outside this research model. This research model is categorized as a strong model, so this model is suitable for hypothesis testing.

**Goodness of Fit Model (GoF) Test**

The Goodness of Fit test aims to measure the accuracy of a research model that is built based on the research variables as a whole. This test has small (0.10), medium (0.25) and large (0.36) GoF value criteria. The following goodness of Fit table can be seen in table 2.

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>e-service quality</td>
<td>0.615</td>
<td></td>
</tr>
<tr>
<td>e-perceived value</td>
<td>0.670</td>
<td></td>
</tr>
<tr>
<td>e-customer loyalty</td>
<td>0.818</td>
<td>0.720</td>
</tr>
<tr>
<td>e-convenience</td>
<td>0.618</td>
<td>0.706</td>
</tr>
<tr>
<td>Rata-rata</td>
<td>0.680</td>
<td>0.713</td>
</tr>
</tbody>
</table>

Source: processed research data (2022)

The following formula is shown by Tenenhaus, (2004), namely:

$$GoF = \sqrt{\text{AVE} \times R^2}$$
$$GoF = \sqrt{0.680 \times 0.713}$$
$$GoF = \sqrt{0.48484} = 0.696305 = 0.70$$

Based on the results of the Goodness of Fit calculation above, it can be concluded that the structural model of this study generally has strong predictive properties. Thus, this research model has a strong ability to explain empirical data.
Hypothesis Testing

Hypothesis testing aims to determine the effect between variables of all hypotheses that have been proposed. To determine the influence between variables, hypothesis testing can be carried out through the t-test for each influence between variables, both direct and indirect effects. The following hypothesis testing results can be seen in Figure 1:

![Figure 1 Hypothesis Testing Results](image)

**Source:** processed research data (2022)

Hypothesis Testing Direct Effect

Direct effect hypothesis testing is carried out to determine the direct effect of e-service quality, e-perceived value, e-customer loyalty and e-convenience variables. The basis for decision-making or criteria for testing this hypothesis is if the t-statistic> t-table (1.97208) or the probability value is less than 0.050 (5% significance). The t-statistic test in this study applies the bootstrapping method in SmartPLS 3. The following results of testing the direct effect hypothesis can be seen in table 3.

<table>
<thead>
<tr>
<th>Effect</th>
<th>Path Coefficient</th>
<th>t-statistic</th>
<th>p-value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Service Quality $\rightarrow$ E-Customer Loyalty</td>
<td>-0.042</td>
<td>0.460</td>
<td>0.646</td>
<td>Not Significant</td>
</tr>
<tr>
<td>E-Service Quality $\rightarrow$ E-Convenience</td>
<td>0.396</td>
<td>4.125</td>
<td>0.000</td>
<td>Not Significant</td>
</tr>
<tr>
<td>E-Perceived Value $\rightarrow$ E-Customer Loyalty</td>
<td>0.613</td>
<td>6.486</td>
<td>0.000</td>
<td>Not Significant</td>
</tr>
<tr>
<td>E-Perceived Value $\rightarrow$ E-Convenience</td>
<td>0.474</td>
<td>5.537</td>
<td>0.000</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>
The Effect of E-Service Quality and E-Perceived Value on E-Customer Loyalty with E-Convenience as a Mediating Variable

<table>
<thead>
<tr>
<th>E-Convenience → E-Customer Loyalty</th>
<th>Path Coefficient</th>
<th>t-statistic</th>
<th>p-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.312</td>
<td>3.210</td>
<td>0.001</td>
<td>Not Significant</td>
</tr>
</tbody>
</table>

**Source:** processed research data (2022)

Based on table 3, the results of testing the hypothesis of the direct influence of the E-Service Quality, E-Perceived Value, E-Customer Loyalty and E-Convenience variables can be obtained. The following is a further explanation of the direct influence between related variables.

H1 : E-service quality has a negative and insignificant effect on e-customer loyalty.

Based on the results of the analysis, it shows that E-Service Quality (X1) has a negative and insignificant effect on E-Customer Loyalty (Y) resulting in a path coefficient value of -0.042. Furthermore, the t-statistic value is 0.460 < 1.97208 and the p-value is 0.646 > 0.050, so based on the results of the analysis it can be concluded that e-service quality has no effect on e-customer loyalty. Based on these results, it can be concluded that hypothesis 1 is rejected.

H2 : E-Service Quality has a positive and significant effect on E-Convenience

Based on the results of the analysis, it shows that e-service quality (X1) has a positive and significant effect on e-convenience (Z), resulting in a path coefficient value of 0.396. Furthermore, the t-statistic value is 4.125 > 1.97208 and the p-value is 0.000 < 0.050, from these results it shows that the better the quality of online services owned, the better the online convenience in the Kimia Farma Mobile application. Based on these results it can be concluded that hypothesis 2 is accepted.

H3 : E-Perceived Value has a positive and significant effect on E-Customer Loyalty

Based on the results of the analysis, it shows that e-perceived value (X2) has a positive and significant effect on e-customer loyalty (Y) resulting in a path coefficient value of 0.613. Furthermore, the t-statistic value is 6.486 > 1.97208 and the p-value is 0.000 < 0.050, so that based on the results of the analysis, it shows that the better the perception of value online in the Kimia Farma Mobile application, the greater the customer loyalty to the Kimia Farma Mobile application. Based on these results, it can be concluded that hypothesis 3 is accepted.

H4 : E-Perceived Value has a positive and significant effect on E-Convenience

Based on the results of the analysis, it shows that e-perceived value (X2) has a positive and significant effect on e-convenience (Z), resulting in a path coefficient value of 0.474. Furthermore, the t-statistic value is 5.537 > 1.97208 and the p-value is 0.000 < 0.050, so that based on the results of the analysis, it shows that the better the perceived value online in the Kimia Farma Mobile application, the greater the level of online convenience in the Kimia Farma Mobile application. Based on these results, it can be concluded that hypothesis 4 is accepted.

H5 : E-Convenience has a positive and significant effect on E-Customer Loyalty

Based on the results of the analysis, it shows that e-convenience (Z) has a positive and significant effect on e-customer loyalty (Y) resulting in a path coefficient value of 0.312. Furthermore, the t-statistic value is 3.210 > 1.97208 and the p-value is 0.001 < 0.050, so that based on the results of the analysis, it shows that the better the level of online convenience in the Kimia Farma Mobile application, the greater the customer loyalty to the Kimia Farma Mobile application. Based on these results, it can be concluded that hypothesis 5 is accepted.
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Testing Indirect Influence

Indirect effect testing is carried out to determine the effect of e-service quality variables on e-customer loyalty through mediating variables (e-convenience). Testing the indirect effect in this study can be seen in table 4.

<table>
<thead>
<tr>
<th>Table 4 Hypothesis Testing of Indirect Influence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effect</td>
</tr>
<tr>
<td>E-Service Quality $\rightarrow$ E-Convenience $\rightarrow$ E-Customer Loyalty</td>
</tr>
<tr>
<td>E-Perceived Value $\rightarrow$ E-Convenience $\rightarrow$ E-Customer Loyalty</td>
</tr>
</tbody>
</table>

Source: processed research data (2022)

Based on table 4, the results of hypothesis testing of the indirect effect of the variables e-service quality, e-convenience and e-customer loyalty can be obtained. The following is a further explanation of the indirect effect.

H6: E-convenience mediates the effect of e-service quality on e-customer loyalty.

Based on the results of the analysis of indirect effects, it shows that e-convenience (Z) has a positive and significant effect in mediating the effect of e-service quality (X1) on e-customer loyalty (Y) by producing a t-statistic value of $2.472 < 1.97208$ and a p-value of $0.014 > 0.050$, so that based on the results of the analysis it can be concluded that e-convenience mediates the effect of e-service quality on e-customer loyalty. Based on these results, it can be concluded that hypothesis 6 is accepted.

H7: E-convenience mediates the effect of e-perceived value on e-customer loyalty.

Based on the results of the analysis of indirect effects, it shows that e-convenience (Z) has a positive and significant effect in mediating the effect of e-perceived value (X2) on e-customer loyalty (Y) by producing a t-statistic value of $2.856 < 1.97208$ and a p-value of $0.004 > 0.050$, so that based on the results of the analysis it can be concluded that e-convenience mediates the effect of e-perceived value on e-customer loyalty. Based on these results it can be concluded that hypothesis 7 is accepted.

DISCUSSION

The Effect of E-Service Quality on E-Customer Loyalty

Based on the results of the direct effect analysis, it shows that e-service quality has a negative effect on e-customer loyalty, so it can be stated that hypothesis 1 is rejected. This result means that the quality of online services obtained by Kimia Farma Mobile application users does not increase online customer loyalty. Good service here is defined as providing complete, easy, flexible features of an adequate system in the Kimia Farma Mobile application. The results of this study are in line with Gotama & Indarwati’s research, (2019)
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which states that the e-service quality variable has no effect on the e-customer loyalty variable. Service quality in an online application that includes all customer interactions with the company and which are used in facilitating shopping activities to product or service delivery services through the website effectively and efficiently (Parsu & Arvind, 2005).

The Effect of E-Service Quality on E-Convenience

Based on the results of the direct effect analysis, it shows that e-service quality has a positive effect on e-convenience, so it can be stated that hypothesis 2 is accepted. This result means that the quality of online services obtained by Kimia Farma Mobile application users can increase online convenience. The results of this study are in line with Adedoyin's research, (2021) which states that e-service quality has a positive effect on e-customer loyalty.

The Effect of E-Perceived Value on E-Customer Loyalty

Based on the results of the direct effect analysis, it shows that e-perceived value has a positive effect on e-customer loyalty so that it can be stated that hypothesis 3 is accepted. This result means that the perception of online value obtained by Kimia Farma Mobile application users can increase online customer loyalty. The results of this study are in line with the research of Sabrang et al., (2021) which states that e-service quality has a positive effect on e-customer loyalty.

The Effect of E-Convenience on E-Customer Loyalty

Based on the results of the direct effect analysis, it shows that e-convenience has a positive effect on e-customer loyalty so that it can be stated that hypothesis 5 is accepted. This result means that the online convenience obtained by Kimia Farma Mobile application users can increase online customer loyalty. The results of this study are in line with the research of Jiang et al., (2013) which states that e-convenience has a positive effect on e-customer loyalty.

The Effect of E-Service Quality on E-Customer Loyalty Mediated by E-Convenience

Based on the results of the analysis of the effect of mediating variables, it shows that e-convenience has a positive and significant effect in mediating the effect of e-service quality on e-customer loyalty, so it can be stated that hypothesis 6 is accepted.

The Effect of E-Perceived Value on E-Customer Loyalty Mediated by E-Convenience

Based on the results of the analysis of the effect of mediating variables, it shows that e-convenience has a positive and significant effect in mediating the effect of e-perceived value on e-customer loyalty, so that hypothesis 7 is accepted.

CONCLUSION

The results of this study indicate that all hypotheses are accepted and significant, but e-service quality is not significant to e-customer loyalty. The better the online service quality in the application, it does not necessarily encourage online customer loyalty to the Kimia Farma Mobile application. The better the online service quality in the Kimia Farma Mobile
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application, the more it will encourage the online comfort level of application users. The better the quality of online service in the application, will encourage online customer loyalty of Kimia Farma Mobile application users. The better the quality of online service in the application, will encourage the online comfort level of Kimia Farma Mobile application users. The better the level of online convenience in the application, will encourage online customer loyalty of Kimia Farma Mobile application users. Online convenience is proven to mediate the effect of online service quality on online customer loyalty in the Kimia Farma Mobile application and online convenience is proven to mediate the effect of perceived value online on online customer loyalty in the Kimia Farma Mobile application.

REFERENCES


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