THE EFFECT OF E-TRUST AND E-SERVICE QUALITY TO E-LOYALTY WITH E-SATISFACTION AS THE MEDIATION VARIABLE
(The Study Of Bebas Bayar Application Users In Indonesian)

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Abstract: This research aims to examine the effect of e-trust and e-service quality on e-loyalty of Bebas Bayar application with e-satisfaction as a mediation variable. This study used a non-probability sampling of 220 respondents and path-analysis. The results of this study show that all proposed variable hypotheses are significant, but e-service quality has no significant influence on e-loyalty. E-trust and e-service quality have a significant effect on e-loyalty with e-satisfaction as a mediation variable.

Keywords: Financial Technology, E-trust, E-Service Quality, E-Satisfaction, and E-Loyalty

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INTRODUCTION

The five categories (FSB, 2017) of financial technologies are 1) payment, clearing, and settlement; 2) deposits, lending, and capital raising; 3) risk management; 4) market support, and 5) investment management. From the five kinds of the financial tech mentioned above, the financial tech that engaged in the sector of payment has become the most rapidly developing kind of financial and tech in Indonesia. The area of business in the financial tech company in Indonesia covers loans (23%), aggregator (12%), planning and crowdfunding (7%), others (11%), and the most are payment service (40%). The development of a financial tech company in Indonesia is also multiplying. By the year 2016, there were 135 companies, followed in 2017 were 235 companies, in 2018 were 315 companies, and until February 2019, there were 326 financial tech companies in Indonesia (www.ojk.go.id). It is showed that over the years, the financial tech companies are increasing, and the rivalry in the usage of finance technology (financial tech) is getting tense. People have got to adjust to the growth of technology development recently. According to the user of financial tech survey data in Indonesia based on the age by CNBC Indonesia (2018), the user of financial tech in Indonesia are 9.7% (<18 years-old), 45.80% (20-25 years-old), 77.80% (25-35 years-old), 59.70% (35-50 years-old), and 13.9% (>50 years-old). The data proved that people in 20-50 years-old dominate the financial tech users.

The usage of technology in doing online transaction change the behavior of the consumer automatically from conventional into modern. According to Turban et al. (2015:407), two factors that affect the action of the online consumer, are a controllable factor and uncontrollable factor. One of the uncontrollable factors is the consumer characteristic that involves trust and satisfaction. Meanwhile, in the controllable factors, one of them is the quality of the product/service. Some aspects influence the loyalty based on Zikmund in Vanessa (2007:72) are 1) Satisfaction; 2) Emotional Bonding; 3) Trust; 4) Choice Reduction; and 5) History with Company.

Based on the research of Kamal (2012), trust is a consumer’s belief in the quality and reliability of products or services offered. Trust involves the willingness of a person to behave in specific ways by trusting a person to believe in the action taken by the other person (Turban, 2015:413). Trust in e-commerce is known as E-trust. E-trust is vital because the risk level in doing e-commerce transactions is higher than the non-online in the matter of shipping, payment, and personal information. E-trust is also the main factor in building e-loyalty. Besides, E-trust can gain the consumer’s loyalty in using a product or service because they tend to be loyal with their trusted e-commerce. It is relevant to the study of Ghalandari (2012) and Zhu (2016), which stated that e-trust has a positive effect on e-loyalty. The research conducted by Al-dweeri et al. (2017) and Feroza (2018) also mentioned that e-trust towards e-loyalty. On the other hand, Melinda (2017) and Eid (2011) discovered that e-trust has a negative effect
on e-loyalty. These inconsistent findings provided an opportunity to investigate the impact of e-trust on e-loyalty.

The quality of service is also becoming one of the ways to rate the consumer’s behavior and service based on the customer’s expectation that can make prospective consumers believe in e-commerce. The service quality is only based on consumers and happened when a company provides a service that can fulfill the consumer’s needs. According to Yen (2008), e-service quality is the overall customer’s evaluation and rating regarding the excellence and quality of electronic shipping service in the cyberspace market. Sabiote, Frias, & Castañeda (2012) believed that excellent e-service quality would gain customer’s satisfaction, which may lead to loyalty in using e-commerce. The consumers who are satisfied with the service managed by the product/service provider will affect their commitment towards its product/service (Jung & Kim 2010; Permada et al. 2018; Santika & Pramunanda, 2018)

E-service quality has a negative impact on e-loyalty. Similar research also conducted by Awadallah & Saad (2017) and Sheng & Liu (2010). They mentioned that e-service quality has a significant impact on e-loyalty. Based on these inconsistent findings of some researches about e-service quality towards e-loyalty, there is a chance in conducting further research regarding this topic. According to the research gap between the e-trust variable and e-service quality towards e-loyalty, it shares an opportunity for the writer to give an intervening variable, which is e-satisfaction.

E-loyalty refers to the customer’s loyalty towards e-commerce or a company that sells products online. The company can gain e-loyalty by studying the customer’s necessity, interacting with customers, and providing the best service to the customer so it will raise customer satisfaction (Turban, 2015:412). The loyal customer in e-commerce is surely feeling satisfied. The research findings based on Fadavi & Amani (2016), Hendra et al. (2018) and Chen (2013) stated that e-satisfaction has a significant effect on e-loyalty. The research conducted by Sheng & Liu (2010), Tang & Huang (2015), and Ong et al. (2016) also declared that e-satisfaction has a significant effect on e-loyalty.

This research aims to: 1) be a reference to the development of knowledge in marketing management related to e-loyalty of digital application user by e-trust, e-service quality, and e-satisfaction; 2) be the reference of the next study related to e-loyalty of digital application user by e-trust, e-service quality, and e-satisfaction; 3) give benefit to the company to make a right strategy to build e-loyalty to the digital application user in the future.

LITERATURE REVIEW

E-Loyalty

According to Zikmund in Vanessa (2007:72), loyalty is influenced by five factors: 1) Satisfaction, 2) Emotional Bonding; 3) Trust; 4) Choice Reduction; and 5) History with Company. Sangadji, E. M., (2013:104) stated that “loyalty is a commitment of a customer/consumer that hold inside to subscribe again or doing
re-purchase a chosen product/service consistently in the future. Even though the influence of situation and marketing effort is the potential to cause the behavior changes,”. Based on Lovelock (2011:76), he stated that “loyalty is an old word to represent the will of the customer to always use the product of a company in the long period time, exclusively, and recommend the products of the company to other people.”

Traditionally, loyalty has no different with online loyalty (e-loyalty). Based on Mindy Jeon, Myunghie, and Jeong (2017), e-loyalty defined as a consumer’s behavior that gives benefit to online sellers with the result of re-purchasing the product. In Melinda (2017), e-loyalty is a customer’s intention to re-visit a website and consider to buy the outcome of it in the future. The same opinion is also stated by Santika & Pramudana (2018), e-loyalty is a beneficial behavior of the customer towards an online business that with the result of re-purchase the product.

**E-Satisfaction**

One of the loyalties supporting factors stated by Zikmund in Vanessa (2007:72) is the satisfaction which is the comparison between expectation before purchasing with the performance of the e-commerce company. Besides, to become an essential factor for the survival of the company, satisfying the customer’s necessity can increase the excellence of rivalry. A customer who is satisfied with the product/service tends to re-purchase those products or re-use the service when the same necessity has come in the future. It means that satisfaction is a crucial factor for customer in re-purchasing, which become the vast portion of the company sales volume. In the next section, the writer will explain the definition of customer satisfaction.

Based on Kotler (2012:138), customer satisfaction is an excited feeling of a person that caused because of comparing the performance of product perception (or the result) towards their expectation. If the return is suitable for their expectations, the customer will be satisfied. Irawan (2012:35) defined customer satisfaction as the result of rating from the customer that the product/service has given a level of pleasure where the level of fulfillment may be more or less.

Online customer satisfaction and the traditional one has no different generally. According to Ahmad, et al. (2017), e-satisfaction is when a product or service is more than the expectation of the consumer, the level of satisfaction has been compared to the previous purchase and the feeling after the experience of the post-purchase. Based on Ong et al. (2016), e-satisfaction is represented as the customer’s satisfaction, which is from the previous purchase with a particular e-commerce company. Meanwhile, according to Tang & Huang (2015), e-satisfaction is the satisfaction of the customer towards the online shopping that consists of happiness in the process of purchase and appreciation of the user in using IT.
E-Trust

One uncontrollable factor based on Turban et al. (2015:407) is the consumer’s characteristics, which is trust. Zikmund in Vanessa (2007:72) also mentioned that one of the ways to support the loyalty of consumers is trust. It is hard for the customer to contact the producer of the product directly since the transaction has happened in online shopping. Consumers will only choose and decide to purchase the product based on the picture and information stated on the website. Therefore, the purchase is entirely determined by the perception and trust of the consumer from the website administrator and the producer. One of the primary foundations of online shopping is the customer’s trust.

Giovanis, Apostolos N. (2014) defined e-trust as the necessary start of the establishment and maintenance relation between customer and online sellers. For a reason, if the information given by the online seller is clear, accurate, and complete, the customer will consider that the buying and selling site or online shop does not take the advantage to maintain their trust of the customer so it will increase customer’s trust towards the online seller in the website.

According to Yousafzai, et al. (2003), e-trust is a personal perspective towards expectation in an online transaction which has hope that the company or organization that selling in online does not misuse the website. Based on Safiva, Rahayu, & Astuti (2016), e-trust is a consumer’s belief in the quality and reliability of the product or service provided. Meanwhile, Zhu (2016) stated that e-trust is the level of trust or certainty of the customer in doing online transactions.

E-Service Quality

One of the controllable factors, as mentioned by Turban et al. (2015:407), is the factor of service/product’s service quality. Service quality is one of the main factors in the business to be remarkable in a rivalry of the company. In reaching the company’s service quality standard, the company has to fulfill the customer’s needs. Companies must understand which part is more important for the customer.

The service quality in e-commerce is e-service quality. It is defined as how high the website’s ability to give an effective and efficient shopping experience, payment, and shipping service (Zeithaml et al., 2009:115). According to Sabiote et al. (2012), good e-service quality can raise the customer’s satisfaction. It is related to the literature’s statement that mentioned the value of the e-service quality would decide the satisfaction with electronic media. Moreover, Yen (2008) presented e-service quality as the customer’s evaluation and rating in entirety about the excellence and shipping service quality in cyberspace.

H₃: E-trust influences e-loyalty.
H₂: E-service quality has influence on e-loyalty.
H₃: E-trust has influence on e-satisfaction.
H₄: E-service quality has influence on e-satisfaction.
H₅: E-satisfaction influences e-loyalty.
H0: E-trust has an influence on e-loyalty with e-satisfaction as the mediation variable.
H1: E-trust has an influence on e-satisfaction as the mediation variable.

**RESEARCH METHODS**

This research used causal methods to analyze the topic, examined the hypothesis, and the relation of the question. This is to determine whether e-trust and e-service quality affected e-loyalty by using mediation variable e-satisfaction on financial tech application users called *Bebas Bayar* offered by PT. Bimasakti Multi Sinergi.

![Research Model](image)

Figure 1. Research Model

The population of this research is the active users of the *Bebas Bayar* application in Indonesia and also a member of Facebook and Instagram. The population characteristics are: 1) Respondents of the research are 20 years old until 50 years old based on the survey of the most financial tech user in Indonesia. 2) Respondents of the study ever did a transaction in the *Bebas Bayar* application in the last one month. 3) Respondents of the research ever did a minimum purchase in the *Bebas Bayar* application two times.

The number of samples used in the research is 200 respondents based on the minimum market investigation. The method used in determining the example of the study is non-probability sampling. In this research, the sample is taken by judgmental sampling. To avoid an error, the sample will be added 10% from the respondent total. The method of data analysis of this research used the Path Analysis using AMOS (Analysis of Moment Structure) program and SPSS to test the mediation variable.

**RESULT**

The results of this study were carried out by distributing questionnaires online via Google form to respondents who used Bebas Bayar application in Indonesia and also joined in IG and Facebook groups of 220 respondents.
Path Analysis Test Result

Based on the figure above, it can be converted into a structural model equation. To count the value of e1 and e2, it used the formula \( e = \sqrt{1 - r^2} \). The calculation of e1 and e2 is:

\[
\begin{align*}
e1 &= \sqrt{1 - r^2} \\
e2 &= \sqrt{1 - r^2} \\
&= \sqrt{1 - 0.601} \\
&= \sqrt{1 - 0.529} \\
&= 0.632 \\
&= 0.686
\end{align*}
\]

The structural model equation in this research is below:

\[
\begin{align*}
Z &= b1X1 + b3X2 + e1 & \text{(1st equation)} \\
&= 0.28X1 + 0.23X2 + 0.632 & \text{(2nd equation)} \\
Y &= b2X1 + b4X2 + b5Z + e2 & \text{(3rd equation)} \\
&= -0.06X1 + 0.15X2 + 0.54Z + 0.686 & \text{(4th equation)}
\end{align*}
\]

Based on the path above, it can be concluded that:

1) There is a positive effect of e-trust towards e-loyalty with the number of coefficients 0.28.

2) There is a negative effect of e-service quality towards e-loyalty with the number of path coefficients -0.06.

3) There is a positive effect of e-service quality towards e-satisfaction with the value of path coefficients 0.15.

4) There is a positive effect of e-satisfaction towards e-loyalty with the value of path coefficients 0.54.
**Hypothesis Test Result**

Table 1. Hypothesis Test Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>Standardize Estimate</th>
<th>Unstandardize Estimate</th>
<th>S.E</th>
<th>CR</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>Correlation e-trust to e-loyalty</td>
<td>.440</td>
<td>.282</td>
<td>.056</td>
<td>5.041</td>
<td>***</td>
</tr>
<tr>
<td>H2</td>
<td>Correlation e-service quality to e-loyalty</td>
<td>-.149</td>
<td>-.063</td>
<td>.037</td>
<td>-1.710</td>
<td>.087</td>
</tr>
<tr>
<td>H3</td>
<td>Correlation e-trust to e-satisfaction</td>
<td>.412</td>
<td>.229</td>
<td>.042</td>
<td>5.495</td>
<td>***</td>
</tr>
<tr>
<td>H4</td>
<td>Correlation e-service quality to e-satisfaction</td>
<td>.403</td>
<td>.149</td>
<td>.028</td>
<td>5.372</td>
<td>***</td>
</tr>
<tr>
<td>H5</td>
<td>Correlation e-satisfaction To e-loyalty</td>
<td>.467</td>
<td>.537</td>
<td>.088</td>
<td>6.123</td>
<td>***</td>
</tr>
</tbody>
</table>

Based on the table above, it can be concluded several points:

1) in the H1 test, the CR value is 5.041 > 2.00. It means that H1 proven and means that e-trust has a positive effect on e-loyalty. As a result, the first hypothesis is accepted.

2) in the H2 test, the CR value is -1.710 > 2.00. It can be seen from the P-value 0.087 > 0.05, so it means that this is not significant or has no effect. It means that H2 does not prove and means e-service quality has a negative effect on e-loyalty. As a result, the second hypothesis is rejected.

3) in the H3 test, the CR value is 5.495 > 2.00. It means that H3 is proven and means that e-trust has a positive effect on e-satisfaction. As a result, the third hypothesis is accepted.

4) in the H4 test, the CR value is 5.372 > 2.00. It means that H4 is proven, and means that e-service quality has a positive effect on e-satisfaction. As a result, the fourth hypothesis is accepted.

5) in the H5 test, the CR value is 6.123 > 2.00. It means that H5 is proven and means that e-satisfaction has a positive effect on e-loyalty. As a result, the fifth hypothesis is accepted.

6) in the H6 test, it receives an indirect effect from e-trust towards e-loyalty by e-satisfaction. It can be seen from the Standardized Indirect Effect value 0.193. It means that the sixth hypothesis is accepted.
7) in the H_7 test, there is an indirect effect of e-service quality toward e-loyalty by e-satisfaction. It can be seen from the Standardized Indirect Effect value 0.188. As a result, the seventh hypothesis is accepted.

After knowing the effect of a variable on other variables, it can be seen the direct effect, the indirect effect, and the total effect of the independent variable on the dependent variable.

Table 2. Direct Effect

<table>
<thead>
<tr>
<th>Standardize Direct Effect</th>
<th>E-Trust</th>
<th>E-Service</th>
<th>E-Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Satisfaction</td>
<td>.412</td>
<td>.403</td>
<td>.000</td>
</tr>
<tr>
<td>E-Loyalty</td>
<td>.440</td>
<td>-.149</td>
<td>.467</td>
</tr>
</tbody>
</table>

Table 3. Indirect Effect

<table>
<thead>
<tr>
<th>Standardize Indirect Effect</th>
<th>E-Trust</th>
<th>E-Service</th>
<th>E-Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Satisfaction</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>E-Loyalty</td>
<td>.193</td>
<td>.188</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 4. Total Effect

<table>
<thead>
<tr>
<th>Standardize Total Effect</th>
<th>E-Trust</th>
<th>E-Service</th>
<th>E-Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Satisfaction</td>
<td>.412</td>
<td>.403</td>
<td>.000</td>
</tr>
<tr>
<td>E-Loyalty</td>
<td>.633</td>
<td>.039</td>
<td>.467</td>
</tr>
</tbody>
</table>

Based on the table above shows the magnitude of the direct effect, indirect effect, and the total effect of each variable. The direct impact of e-trust variable on e-satisfaction is 0.412. The direct impact of the e-service quality variable on e-satisfaction is 0.403. The direct effect of the e-trust variable on e-loyalty is 0.440. The direct impact of the e-service quality variable on e-loyalty is -0.149 — the immediate effect of the e-satisfaction variable on e-loyalty is 0.467.

Furthermore, to find out the indirect effect of e-trust and e-service quality variables on e-loyalty can be seen in the table. The indirect impact of the e-trust variable on e-loyalty is 0.193. The indirect effect of the e-service quality variable on e-loyalty is 0.188. To determine the total effect of the variable can be calculated by the magnitude of the direct impact + the magnitude of the indirect effect. The total effect of the e-trust variable on e-satisfaction is 0.412. The overall impact of e-service quality variables on e-satisfaction is 0.403. The total impact of the e-trust variable on e-loyalty was 0.633. The full impact of e-service quality variables on e-loyalty is 0.039. The total effect of e-satisfaction variables on e-loyalty is 0.467.
Mediation Test Result

Based on the test result above, it can be concluded that the mediation test of the research is: 1) in the variable of e-trust, it showed that mediation proved that partially mediated. It is because there is a significant variable effect from the e-trust variable towards the e-loyalty variable directly and indirectly. Whether it is by the mediation variable of e-satisfaction or not. 2) in the variable path of e-service quality, it is showed that mediation is fully mediated and full/perfect mediation. The reason is that the e-service quality variable towards e-loyalty is not significant but the effect is substantial when it related to e-satisfaction.

DISCUSSION

1. E-Trust Effect Towards E-Loyalty

The findings of the research showed that e-trust has a positive effect on e-loyalty directly. It also showed that the first hypothesis is accepted. Some results of the research also related to the finding of Ghalandari (2012), Zhu (2016), Aldweeri et al. (2017) and Feroza (2018) in the object research of e-commerce, which stated that e-trust has a positive effect on e-loyalty. For a reason, e-trust affects e-loyalty. Meanwhile, these findings do not support the result of Melinda (2017) dan Eid (2007) in the object of the research e-commerce, which stated that e-trust has a negative effect e-loyalty.

2. E-Service Quality Effect Towards E-Loyalty

The findings of this study showed that e-service quality has a negative effect on e-loyalty directly. It means that the second hypothesis is rejected, which mentioned that “e-service quality does not affect on e-loyalty.” These research findings are related to the research result conducted by Feroza (2018) that studied e-commerce and stated that e-service quality has a negative effect on e-loyalty. Therefore, e-service quality does not affect on e-loyalty. But, this findings do not support the research result did by Ghalandari (2012), Sativa et al., (2016), Jung & Kim (2010), Hendra et al., (2018) and Chen (2013) with the object of e-commerce, that mentioned e-service quality has a positive effect towards e-loyalty.

3. E-Trust Effect Towards E-Satisfaction

The findings of this study showed that e-trust has a positive impact on e-satisfaction directly. It showed that the third hypothesis is accepted, which stated that “e-trust affects toward e-satisfaction.” These research findings are related to the research result conducted by Ghalandari (2012), Tang & Huang (2015), Phani (2015), Sativa, et al. (2016), Melinda (2017), and Feroza (2018) that studied about e-commerce and financial tech. They mentioned that e-trust has a positive effect on e-satisfaction. Therefore, e-trust affects on e-satisfaction. The users of the application believe that by using the Bebas Bayar application, they have experience in operating an application. This kind of experience makes the users think and stays to use the Bebas Bayar application.
4. E-Service Quality Effect Towards E-Satisfaction

The findings of the research showed that e-service quality has a positive effect on e-satisfaction directly. It also showed that the fourth hypothesis is accepted, which mentioned that “e-service quality affects e-loyalty.” Some results of the research also related to the finding of Jung & Kim (2010), Gounaris et al., (2010), Sativa et al., (2016), and Hendra et al., (2018) in the object research of e-commerce, which stated that e-service quality has a significant effect towards e-satisfaction. Therefore, e-service quality affects on e-satisfaction. Meanwhile, these findings do not support the result of Melinda (2017) in the object of the research e-service quality, which stated that e-trust has a negative effect on e-satisfaction.

5. E-Satisfaction Effects Towards E-Loyalty

The findings of the research showed that e-satisfaction has a positive impact on e-loyalty directly. It also showed that the fifth hypothesis is accepted, which mentioned that “e-satisfaction affects e-loyalty.” Some results of the research also related to the findings, which conducted by Sheng & Liu, (2010), Chen (2013), Tang & Huang (2015), Ong et al., (2016), and Hendra et al., (2018) in the object research of e-commerce, which stated that e-satisfaction has a significant effect towards e-loyalty. Therefore, e-satisfaction affects on e-loyalty.

6. E-Trust Effect Towards E-Loyalty by E-Satisfaction as the Mediation Variable

The findings of the research mentioned that e-trust has a positive effect on e-loyalty by e-satisfaction as the mediation variable. It is showed that the sixth hypothesis is accepted, which indicated that “e-trust has an effect towards e-loyalty by e-satisfaction as the mediation variable.” This result is related to the findings of Sativa et al., (2016), Zhu (2016), Ghalandari (2012), Phani (2015), Al-dweeri et al., (2017), and Tang & Huang (2015) in the object research of e-commerce, which stated that e-trust has a significant effect towards e-loyalty by e-satisfaction as the mediation variable.

7. E-Service Quality Effect Towards E-Loyalty by E-Satisfaction as the Mediation Variable

The findings of the research stated that e-service quality has a positive effect on e-loyalty by e-satisfaction as the mediation variable. It is showed that the seventh hypothesis is accepted, which mentioned that “e-service quality has an effect towards e-loyalty by e-satisfaction as the mediation variable.” This result confirms the findings of Permada et al., (2018), Santika & Pramudana (2018), Hendra et al., (2018), Jung & Kim (2010), Ong et al., (2016), and Sheng & Liu (2010). They found that e-service quality has a significant effect towards e-loyalty by e-satisfaction as the mediation variable.

FURTHER RESEARCH

This research admittedly still needs further development and correction. Another variable predicting loyalty could also be investigated, such
as emotional bonding, choice reduction, habit, and history with the company as stated by Zikmund in Vanessa (2007:72). The use of different financial technology corporations, e.g., Ovo, Gopay, etc. with huge users would provide more generalized and substantiated results for further studies.

REFERENCES


