The effect of e-service quality on e-loyalty mediated by e-trust and brand image variables: A study on OVO E-Wallet application users in Malang City

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ABSTRACT

The amount of e-wallet providers in Indonesia is so many, so there is intense competition between each e-wallet provider. The tighter competition for e-wallet, makes users not only loyal to one type of e-wallet and makes users switch brands or providers in using an e-wallet. This study aims to investigate the factors that influence e-service quality on e-loyalty mediated by e-trust and brand image. This research is categorized as explanatory research. Respondents in this study were users of the OVO e-wallet application in Malang City, determining the number of samples in this study using a purposive sampling technique with a sample of 200 respondents. The method of collecting data is using a questionnaire, the data is analyzed using PLS-SEM. The results showed that e-service quality had no significant effect on e-loyalty. E-service quality has a significant effect on e-trust, e-trust has a significant effect on e-loyalty. E-service quality has a significant effect on brand image, brand image has a significant effect on e-loyalty. E-trust and brand image can play a fully mediating role in the relationship between e-service quality and e-loyalty. OVO is expected to continue to maintain and increase e-trust because it is proven in this research that e-trust has the greatest influence on e-loyalty so that it can be a competitive advantage for OVO.

Introduction

The power of internet revolution and information technology has influenced and changed people's lives. The advancement of internet technology today has become the root for every business and its practice for a company (Mota and Cilento, 2020). The number of internet users in Indonesia always increases from year to year (Association of Indonesian Internet Service Providers, 2019). The increasing number of internet users in Indonesia, it confirms that the internet has now become an important part of society in Indonesia.

The existence of the internet and information technology that is increasingly being accessed by people makes business progress in the fintech field. According to Bank Indonesia (2020) financial technology/fintech is the result of a combination of financial services and technology that ultimately changes the business model from conventional to moderate, which initially pays face-to-face and carries a certain amount of cash, and now can long-distance transactions by making payments which can be done in just seconds. There are many advantages when using fintech. According to Discussion (2019), the advantages of using fintech are many, namely getting better services, more choices, cheaper prices, no need to carry cash (cashless), etc.

The number of fintech start-ups in Indonesia from year to year are always increases (Indonesian Fintech Association, 2020). Fintech is closely related to e-wallet. According to Ipotpay (2021) e-wallet is an application or feature developed to make it easier for users to make payments via smartphones. In 2020 the number of e-wallet providers in Indonesia is 38 providers (Bank Indonesia, 2020),

based on this data, it is concluded that there is intense competition between each e-wallet provider. The tighter competition for e-wallet, it makes users not only loyal to one type of e-wallet and makes users switch brands or providers in using e-wallet.

E-service quality provided by e-wallet application greatly determines the level of e-loyalty of a user, because good e-service quality will make every transaction more practical and easier (Gull, et al, 2020). The convenience offered in online transactions is the reason for the emergence of e-wallet applications in Indonesia. One of them is OVO. There are many advantages and benefits offered by OVO which are expected to make users loyal to OVO. E-loyalty is considered an important factor that can make companies achieve profits (Akroush, et al, 2020). In 2020, the number of OVO users decreased from 56% to 55% users (Prasetyo, 2020). This supports and triggers interest to study further regarding e-loyalty owned by OVO users

There are inconsistencies in the results of previous research that produce differences (Shafiee and Bazrgan (2018); Gull, et al. (2020); Khan and Zubair (2019); Gotama and Indarwati (2019); Melinda (2017); Wyer and Mells (2018)), being an interesting research gap for further research on how the actual effect of e-service quality on e-loyalty and to overcome the research gap found, this research included mediating variables to bridge the research gap. To close the research gap in this research, e-trust and brand image mediation variables were included. Supported by previous research which explains that e-trust and brand image have significant positive results on e-loyalty (Al-dweeri, et al (2017); Pham, Vu and Tran (2020); Wilis and Nurwulandari (2020); Cuong and Khot (2019); Subaebasni, Risnawaty and Wicaksono (2019)).

In Malang City was found that there was a new symptom of society in transacting that is the phenomenon of lifestyle changes in making payment transactions which are now online. Digital payment transactions in Malang City always increase every month during the COVID-19 pandemic. Digital transactions increased by more than 20% from March to June 2020. There was an increase, from 47% to 70% transactions (Subhan, 2020). It can be concluded that digital payment transactions in Malang City are increasingly in demand, especially during the COVID-19 pandemic.

Literature review

Conceptual Background

E-Service Quality

According to Theodosiou, et al (2019), e-service quality is the extent to which service quality can effectively and efficiently meet relevant customer needs. According to Kalia and Paul (2020) defines e-service quality as the ability of a website or application to facilitate transactions efficiently and effectively. indicators to measure e-service quality according to Prisanti., et al (2019) there was 5 include Fulfillment/Reliability, Customer Service, Website/Application Design, Informativeness and Customization.

E-Loyalty

According to Rodríguez, et al (2020) e-loyalty is defined as positive repetitive behavior in visiting websites or using applications. According to Ghali (2020) e-loyalty is the behavior of customers to visit and review certain websites or applications and make transactions conveniently. There are 3 indicators to measure e-loyalty according to Prisanti., et al (2019) which include Saying Positive Things, Recommending To Others and Continuous Use or Purchase.

E-Trust

According to Pham, Vu and Tran (2020) e-trust is the willingness of consumers to accept possible vulnerabilities that can occur in online transactions. E-trust is a set of different beliefs in the integrity, benevolence, and capability of a website or application (Al-dweeri. et al, 2017). There are 3 indicators to measure e-trust according to Prisanti., et al (2019) and Safitri (2020), which include Guarantee, Credibility and Positive Expectations.

Brand Image

According to Latif, Islam, Mohamad and Sikder (2016) brand image can also be interpreted as the thoughts and feelings of consumers about a brand. According to Zhou, et al (2015) brand image is the general perception and impression of consumers towards the introduction of a brand or symbolic attributes and products. There are 3 indicators to measure brand image according to Lin, Lin and Wang (2020), which include Functional Image, Affective Image and Reputation.

Conceptual Framework of the Research

This research investigates four main constructs consisting of one independent variable (e-service quality) and one dependent variable (e-loyalty). In addition, this study also adds two mediating variables (e-trust dan brand image). For more details, see Figure 1 below:
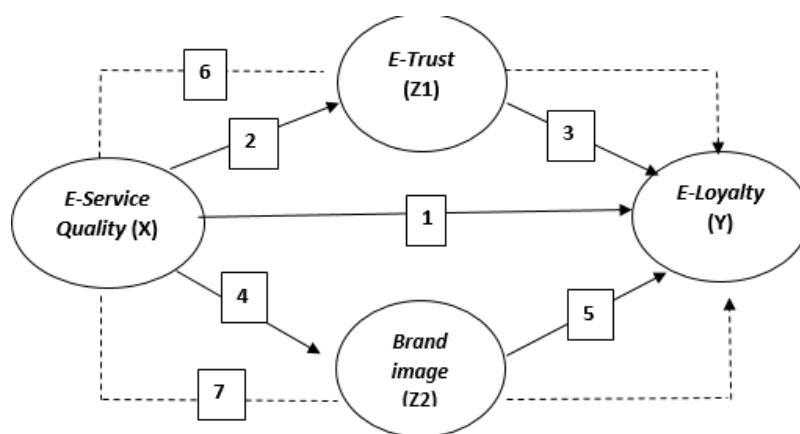
Figure 1: Research Framework and Hypothesis

The hypotheses of this study are:

H1: E-service quality has a significant effect on e-loyalty
H2: E-service quality has a significant effect on e-trust.
H3: E-trust has a significant effect on e-loyalty.
H4: E-service quality has a significant effect on brand image.
H5: Brand image has a significant effect on e-loyalty.
H6: The effect of e-service quality on e-loyalty is mediated by e-trust.
H7: The effect of e-service quality on e-loyalty is mediated brand image.

Research and Methodology

Participants and Data Collection

OVO e-wallet application users in Malang City who use the application at least twice. Because there are certain for criteria for selecting the sample, a non-probability with approach purposive sampling technique was used to select the sample in this study and the sample in this study amounted 200. The technique of data collection in this research used a questionnaire. This research was conducted from April to May 2021.

Data Analysis

The method of data analysis uses SEM (Structural Equation Modeling) based on Partial Least Square (PLS) that using SmartPLS 3.0 software application.

Measurements

All indicators to measure the four variables were adopted from several previous studies. Indicators of perceived ease of use variables were adapted from Theodosiou, et al (2019) study which consisted of 5 indicators. E-loyalty variables were measured through 3 indicators from Prisanti, et al (2019). E-trust variables were measured through 3 indicators from Prisanti, et al (2019) and Safitri (2020). Brand image variables were measured through 3 indicators from Lin, Lin dan Wang (2020).

Findings

Result

Based on the results of respondent data processing, it was known that from 200 respondents there were 65 respondents with male gender (32.5%) and 135 respondents with female sex (67.5%). Based on age, respondents aged <20 years were 3 people (1.5%), then respondents aged between 21-30 years were 181 people (90.5%) and respondents aged between 31-40 years were 16 people (8.0%). Based on education, respondents with the last education of SMA/Equivalent were 3 people (1.5%), then 17 respondents with diploma education (8.5%) and 180 respondents (90.0%). Based on income, respondents with income of 1 – 3 million/month were 78 people (39.0%), respondents with income >3 – 6 million/month were 81 people (40.5%), respondents with income >6 – 9 million/month were 27 people (13.5%), respondents with income >9 million/month were 14 people (7.0%).

Based on occupation, respondents with jobs as students were 27 people (13.5%), respondents with jobs as private employees/BUMN were 93 people (46.5%), respondents with jobs as entrepreneurs were 69 people (34.5%) and respondents with jobs as civil servants totaled 11 people (5.5%). Based on the frequency of use, respondents who have used the OVO e-wallet application twice as many as 45 people (22.5%), while respondents who used the OVO e-wallet application more than 2 times were 155 people (77.5%).

Table 1: Composite Reliability, Cronbach Alpha, AVE

Variables	Composite Reliability	Cronbach Alpha	AVE
E-Service Quality	0.943	0.932	0.623
E-Loyalty	0.908	0.877	0.623
E-Trust	0.878	0.814	0.644
Brand Image	**0.932**	**0.912**	**0.695**

Source: Primary data processed, 2021

Table 1 indicates that the scale, magnitude, and statistical concordance have been accepted. The average variance extracted (AVE) value of all latent variables shows a score of 0.623 for the E-Service Quality variable, 0.623 for the E-Loyalty variable, 0.644 for the E-Trust variable, and 0.695 for the Brand Image variable. Cronbach's alpha value for the reliability criteria is quite high; E-Service Quality has the highest cronbach alpha value. Sequentially, the value of the Cronbach alpha coefficient for the four variables used in this study ranged from 0.814 to 0.932, they were acceptable.

The value of composite reliability (CR) in a row was 0.943, respectively, 0.943, 0.908, 0.878, and 0.932 (above 0.80). It can be concluded that all constructs were reliable, both according to composite reliability and Cronbach's alpha. The R-square value of the E-loyalty variable in this research model was 0.659. Goodness of Fit (GoF) in this research was calculated using the equation $Q2= 1 – (1-R12) \times (1 – R22) \times (1 – R32) = 1 – (1-0.695) \times (1-0.657) \times (1 – 0.641) = 0.962$. A score of 0.962 on the Q-Square calculation shows that the model in this research can be said to have a good goodness of fit.

The direct influence presented, e-service quality on e-loyalty has no significant effect, with a path coefficient of 0.225 and a p-value of 0.100 (more than significance value of 0.05). Based on these findings, hypothesis 1 was rejected, it means that e-service quality has no significant effect on e-loyalty. *Thus, hypothesis 1 was rejected*. The effect of e-service quality on e-trust is known to be significant with a path coefficient of 0.810 and a p-value 0.000 (under the critical value of 0.05). Based on these findings, hypothesis 2 is accepted, it means that e-service quality has a significant effect on e-trust. *Thus, hypothesis 2 is accepted*. The effect of e-trust on e-loyalty is known to be significant with a path coefficient of 0.330 and a p-value of 0.020 (under the critical value of 0.05). Based on these findings, hypothesis 3 was accepted, it means that e-trust has a significant effect on e-loyalty. *Thus, hypothesis 3 was accepted*. The effect of e-service quality on brand image was known to be significant with a path coefficient of 0.801 and a p-value 0.000 (under the critical value of 0.05). Based on these findings, hypothesis 4 was accepted, it means that e-service quality has a significant effect on brand image. *Thus, hypothesis 4 was accepted*. The influence of brand image on e-loyalty is known to be significant with a path coefficient of 0.327 and a p-value of 0.020 (under the critical value of 0.05). Based on these findings, hypothesis 5 was accepted, it means that brand image has a significant effect on e-loyalty. *Thus, hypothesis 5 was accepted.*

The indirect influence presented, the role of e-trust in mediating the relationship between e-service quality and e-loyalty is known to be significant with a path coefficient value of 0.267 and a p-value of 0.020 (under the critical value of 0.05). These results indicate that e-trust can play a role in mediating the relationship between e-service quality and e-loyalty. *Thus, hypothesis 6 was accepted*. The role of brand image in mediating the relationship between e-service quality and e-loyalty is known to be significant with a path coefficient value of 0.262 and a p-value of 0.020 (under the critical value of 0.05). These results indicate that brand image can play a role in mediating the relationship between e-service quality and e-loyalty. *Thus, hypothesis 7 was accepted.*

Discussion

The effect of e-Service quality on e-Loyalty

This research resulted in the finding that e-service quality has no significant effect on e-loyalty. It means that e-service quality cannot directly increase e-loyalty. The cause of the ineffectiveness of e-service quality on e-loyalty is that not all users always or frequently use OVO e-wallet, this happens because users feel that the information provided by OVO is still incomplete and detailed.

Melinda (2020) explains that information in online company business is very important, users certainly need adequate information. Where a complete information can make consumers more confident and loyal to the online company. So that users can use OVO more often, the company is expected to complete the information contained in the application in detail and complete so customers will feel comfortable, safe and trusted.

This reseach is accordance with the results of previous research conducted by (Gotama and Indarwati, 2019; Melinda, 2017; Wyer and Mells, 2018) showing that e-service quality has no effect on e-loyalty. These researches show an insignificant effect of e-service quality in increasing e-loyalty in the context of online business. These researches mean that lower of e-service quality are provided, so that the e-loyalty in using these services will also decrease.

The effect of e-Service quality on e-Trust.

This research resulted in the finding that e-service quality has a significant effect on e-trust. It means that the better of e-service quality provided by OVO, the more user e-trust on OVO will increase. E-service quality on e-trust can have a significant effect because users feel that the website / application design is good, customer service staffs are willing to help and the OVO layout is easy to understand so that it triggers user confidence in OVO security. The guarantee offered by e-service quality is an important thing in e-trust. When the guarantee is higher and stronger, it will support users to trust a service from a website or application. The higher of e-service quality, the more likely customers are to trust the services of the site or application (Amin, et al, 2018). E-service quality plays a very important role in increasing e-trust.

The results of this research are also in accordance with research conducted (Dat and Vu, 2019; Rita, Oliveira and Farisa, 2019; and Al-dweeri, et al, 2017) where they found that e-service quality has an influence on e-trust in the environment virtual. E-service quality is important in increasing e-trust in online business (Rita, Oliveira and Farisa, 2019). Good e-service quality will increase e-trust from users (Al-dweeri, et al, 2017).

The effect of e-trust on e-Loyalty.

This research resulted in the finding that e-trust has a significant effect on e-loyalty. It means that the better the user's e-trust towards OVO, the more user e-loyalty will increase. The higher trust, the more likely the customer wants to continue to survive. E-trust on e-loyalty can have a significant effect because users feel that the guarantee provided by OVO is good, where users believe in OVO's security so that it triggers users to give OVO a positive review. Users consider an application service to be trusted when the application can provide reliable guarantees. Respondents in this research already considered that OVO had provided a reliable guarantee. This is evidenced by the results of the descriptive analysis of the guarantee indicator showing the highest score.

The results of this research are also in accordance with research conducted (Al-dweeri, et al, 2017; Amin, et al, 2018; and Boonlertvanich, K. 2019). The study argues that e-trust has a positive relationship with e-loyalty. It means that e-trust has a large impact on e-loyalty, where e-loyalty will increase when e-trust increases.

The effect of e-Service quality on brand image.

This reseach resulted in the finding that E-service quality has a significant effect on brand image. The better of e-service quality provided by OVO, the better brand image of OVO itself will be in the minds of consumers. It is important for OVO to maximize its e-service quality in order to create a good impression and picture of the company. E-service quality on brand image can have a significant effect because users feel that the design of the OVO website / application is good, customer service staffs are willing to help and the OVO layout is easy to understand so that it successfully makes users feel that OVO provides good service quality. Users feel comfortable when using or transacting through OVO so that they can improve or create a good brand image in the minds of consumers. The results of this research are also in accordance with research conducted (Kang and Chung, 2018; and Alipoor, 2016) they found the results that e-service quality can affect brand image. E-service quality is important for brand image. When the e-service quality is good, the brand image will be considered good.

The influence of brand image on e-loyalty.

This research resulted in the finding that Brand image has a significant effect on e-loyalty. It means that the better of brand image created, so that the more user e-loyalty on OVO will increase. Brand image on e-loyalty can have a significant effect because users feel that the affective image of OVO is good, where OVO has a good impression, the quality of OVO services is better than its competitors, thus triggering users to give positive OVO reviews which can increase e-loyalty. Brands have become important in companies because brands are the most valuable intangible assets. The results of this research are also in accordance with research conducted by (Wilis and Nurwulandari, 2020; Riyadi, 2019; and Alipoor, 2016) that brand image has a significant effect on e-loyalty. Creating a positive brand image is important for customer-oriented companies and allows companies to increase loyalty.

The effect of e-Service quality on e-loyalty mediated by e-Trust.

The results show that E-service quality has a significant impact on e-loyalty through e-trust. E-service quality offered by OVO cannot directly affect e-loyalty, so it must be bridged with the e-trust mediation variable. If a user feels trust in an application, the user can become loyal. E-trust is able to mediate the relationship between e-service quality and e-loyalty because the guarantees offered by OVO are good and users trust OVO's security. The impact of e-trust mediation is known to be complete mediation, thus it can be interpreted in this research that in order for e-service quality to have a significant effect on e-loyalty, the only way is to pass the e-trust mediation variable. In this research, the e-trust variable is able to bridge the effect of e-service quality on e-loyalty to OVO e-wallet users in Malang City. E-service quality is able to increase e-loyalty by building e-trust on OVO e-wallet users in Malang City.

The effect of e-service quality on e-loyalty mediated by brand image.

The results show that E-service quality has a significant impact on e-loyalty through brand image. E-service quality offered by OVO cannot directly affect user e-loyalty, so it must be bridged with brand image mediating variables. If a user feels that an application has a positive image then that user can become loyal. Brand image is able to mediate the relationship between e-service quality and e-loyalty because users feel that the affective image of OVO is good, where OVO has a good impression, OVO's service quality is

also better than its competitors. The impact of brand image mediation is known to be complete mediation, thus it can be interpreted in this research that in order for e-service quality to have a significant influence on e-loyalty, the only way is to pass the mediating variable brand image. In this research, the brand image variable is able to bridge the influence of e-service quality on e-loyalty to OVO e-wallet users in Malang City. E-service quality is able to increase e-loyalty by building a positive brand image for OVO e-wallet users in Malang City.

Conclusion

The results of this research can be concluded that e-service quality cannot affect e-loyalty directly, it must be through the mediating variable of e-trust or brand image. Consumers will consider the ability of the e-service quality provided by the OVO e-wallet and then from the ability of the e-service quality whether it can increase user e-loyalty, and from the ability of the e-service quality whether OVO can be trusted in carrying out online transactions with users. Then, is the e-service quality able to create a positive brand image so that it can increase user e-loyalty in using OVO e-wallet services.

Recommendation for Future Research

i. Further research can be carried out in areas other than Malang City, which have a wider area, a larger population, and an estimated number of more OVO e-wallet application users.

ii. This research model should also be tested on other digital services, such as digital e-commerce services or streaming on demand to see the consistency of research results using the same research model as this research model.

iii. Further research can also add other variables that have not been used in this research, such as satisfaction variables, value perceptions, risk perceptions, and many other variables.

iv. This research in the future still needs to be enriched by increasing the number of respondents used as research samples, because the larger the number of research samples is expected to provide better research results.

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