



**THE EFFECT OF E-SERVICE QUALITY ON E-LOYALTY  
THROUGH E-SATISFACTION ON STUDENTS OF OVO  
APPLICATION USERS AT THE FACULTY OF ECONOMICS  
AND BUSINESS, UNIVERSITY OF NORTH SUMATRA, INDONESIA**

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**Abstract:**

E-payment is a payment method that uses internet services as an intermediary. Currently, there are many startups that facilitate the sellers and buyers by guaranteeing the security of transactions through the digitization system. Parties involved in the transaction process can transfer and receive money from other parties anytime and anywhere. One method of e-payment is the OVO application which is a smart financial apps, this application attempts to accommodate various needs related to cashless and mobile payment. The population in this study was students of the Faculty of Economics and Business, University of North Sumatra who were still active, who used an unknown number of OVO applications. The questionnaire was distributed to 97 respondents who became the study sample. This study uses path analysis with the help of the SPSS program. The results of this study are that e-service quality has a positive and significant effect on e-loyalty, e-service quality has a positive and significant effect on e-satisfaction, e-satisfaction has a positive and significant effect on e-loyalty, and e-service quality has a positive and indirectly effect towards e-loyalty through e-satisfaction.

**Keywords:** e-service quality, e-satisfaction, e-loyalty

## 1. Introduction

At this moment in time, the internet has turned into one of the significant parts of human life because with the internet all undertakings are currently at ease. In addition, with the existence of the internet, the lifestyle of the people is also on the rise. The daily life of today's society has a preference of instant culture, which is a fast and practical way. So that with the increasingly widespread use of the internet, the use of commerce is also increasing, one of which is to conduct transactions electronically. One of the electronic transactions that is currently developing is the use of e-payment or digital payment. E-payment offers a range of benefits such as stepping up the transaction process and being able to sell products at lower prices. Parties involved in the transaction process can transfer and receive money from other parties anytime and anywhere.

According to the Financial Times Confidential Research Mobile Payment, electronic money providers in Indonesia are Go-Pay, OVO, Tcash, BCA Klikpay, and Doku Wallet. Go-Pay leads with the number of users reaching almost three-quarters of the users of electronic money compared to other electronic money. In addition, the FT Confidential Research Mobile Payment Survey found Go-Pay to be the most popular mobile payment platform in Indonesia, but it faced intense competition from OVO, part of the Lippo Group firm. The FT Confidential Research Mobile Payment survey also mentions Go-Pay was used by nearly three-quarters of cellular payment users in the last three months of July-September, winning slightly from the same period last year, followed by OVO, which was used by around 42 percent. Not a few people use both Go-Pay and Ovo. In fact, OVO is deemed as a newcomer (Khoirunnisa, 2019).

With the current increase in OVO users that almost rival Go-Pay, it can be said that OVO users are satisfied with the service features provided by OVO. This also applies to OVO users at North Sumatra University's Faculty of Economic and Business, most of whom use OVO applications to make online motorcycle taxi (Grab) transactions, top up, make payments at merchants who have collaborated with OVO, and so on. Customer satisfaction is important for every service-goods' company. Satisfaction can be interpreted as a feeling of contentment, a sense of pleasure and relief due to consuming a product or service to obtain services (Aaker, 2013). In the case of online transactions, customer satisfaction is also called e-satisfaction. Flavian, et al.(2006) explain e-satisfaction as the affective state of the customer to the website obtained from evaluating all aspects that make up customer relations.

Mowen et al. (2002) state that customer's satisfaction is the overall attitude that customers have for goods or services after they use it. This is in accordance with the opinion of Kotler (2016) which states that consumer loyalty is defined as the level of one's feelings after comparing the performance (or results) that he feels compared to his expectations. Comparison between expectations and performance will result in feelings of pleasure or disappointment in the minds of customers. If the performance matches or even exceeds expectations, the customer will feel happy or satisfied so that it can shape

customer loyalty. Conversely, if the performance is below expectations, the customer will feel disappointed or dissatisfied.

In consumer-oriented industries or businesses, such as OVO, service quality is one of the factors that can affect customer satisfaction. In determining customer satisfaction there have been many studies that link service quality as an indicator of satisfaction. With the large and growing number of mobile payments in Indonesia, OVO is demanded to be able to provide good quality service and customer satisfaction and also to maintain its existence in the world of mobile payment in the midst of intense competition between similar companies. The most frequently used way to build customer loyalty is to provide quality products or services that are superior to products or services from similar competitors, besides that it can be done by providing the best service and prices that are relatively low-cost and affordable or at least provide the price is relatively the same as the competing company.

## **2. Literature Review**

### **2.1 E-loyalty**

Hasan (2008) explains that customer loyalty is defined as the person who buys, especially those who buy regularly and repeatedly. The customer is someone who continuously and repeatedly goes to the same place to satisfy his desires by owning a product or getting a service and paying for the product or service. Consumer loyalty according to Hur, et al. (2011) is defined as a firmly held commitment to buy back selected products or services in the future, thus causing repeated purchases of products or services with the same brand, even though there are situational influences and marketing efforts that have the potential to lead to product switching behavior or services with other brands. In addition, according to Kotler and Keller (2016) customer loyalty is defined as a commitment held in depth to buy or support a product or service that is preferred.

In the online context, customer or consumer loyalty is better known as e-loyalty. Hur, et al. (2011) defines e-loyalty as the customer's intention to visit the website again with or without online transactions. According to Kotler (2016) there are six reasons why companies must keep up and maintain their customers:

- 1) Existing consumers have greater prospects to benefit the company.
- 2) The costs incurred by the company in retaining and maintaining existing customers are far smaller than finding new customers.
- 3) Consumers who believe in an institution on a business matter tend to believe in other business matters as well.
- 4) If an old company has many consumers, then the company will benefit because of efficiency.

Companies can measure whether these consumers belong to loyal consumers or not by indicators according to Kotler and Keller (2016), namely:

- 1) Repeat Purchase (loyalty to product purchases).

- 2) Retention (Resistance to negative influences about the company).
- 3) Referrals (referring in total to the company's existence).

## **2.2 E-satisfaction**

Kotler and Keller (2016) states that satisfaction is generally a feeling of customers when they feel pleasure or disappointment as a result of a comparison between the performances of products and services that customer feels with their expectations. In the context of online, satisfaction is often called e-satisfaction. Ranjbarian et al (2012) defines that e-satisfaction or online customer satisfaction is the result of consumer perceptions of online convenience, trading / transaction methods, site design, security, and service. In addition, e-satisfaction can also be defined as the cumulative results of one party or someone who has different experiences of a product or service in a certain period of time (Syzmanki and Hise, 2000 in Al-Hawari, 2014). E-satisfaction can also be defined as the experience felt after using the product and comparing between perceived quality and expected quality (Gounaris, et al., 2010). Based on Oliver's conceptualization in Anderson and Srinivasan (2003), satisfaction is as an evaluation of customers for each transaction experience, then e-satisfaction can be considered as fulfilling pleasant customer needs collected during several transaction experiences. According to Tjiptono (2007) satisfaction has the potential to provide several benefits, namely:

- 1) Customer satisfaction will have a positive impact on customer loyalty.
- 2) Customer satisfaction has the potential to become a source of future income, especially through repurchases, cross-selling, and up-selling.
- 3) Customer satisfaction reduces customer transaction costs in the future, especially marketing communication costs, sales and sales service.
- 4) Customer satisfaction suppresses volatility and price tolerance, especially the willingness of customers to pay supplier prices.
- 5) Customers tend to be more receptive to product line extensions, brand extensions, and new add-on services offered by the company.

According to Tjiptono (2007) there are several core concepts regarding the object of measurement in customer satisfaction, namely:

- 1) Overall customer satisfaction
- 2) Expectation
- 3) Interest in repurchasing
- 4) Ease

## **2.3 E-service Quality**

Usmara (2008) explained that service quality is an attitude from the results of the comparison of expectations of consumer service quality with the company's performance perceived by consumers. In addition, according to Roderick, James and Gregory (2008) that service quality is the level of measurement of service quality which is assumed to be related to price development. Companies that are able to provide

service quality from competitor service quality will be able to win the competition (Atmaja, 2011).

Increasing competition intensity from competitors requires companies to innovate in providing services to customers and to get new customers, by maximizing their services electronically through the internet known as e-service. In the online context, service quality is also called e-service quality. According to Rowley (2006) E-Service is an act, business or performance that is mediated by information technology. The electronic services include elements of e-tailing services, customer support, and service. E-Service Quality is developed based on existing information technology advancements to evaluate a service provided on the internet network.

From several definitions of e-service quality above, it can be concluded that e-service quality is an assessment by consumers of the service quality of a company or service provider that can be done using an internet network. According to Ladhari (2010) service quality in the context of online and offline can be measured by several dimensions, namely:

- 1) Reliability is the ability of e-tailers to carry out the promised service in a timely and accurate manner.
- 2) Responsiveness is the speed of response and willingness of e-tailers to help customers.
- 3) Privacy / security is the protection of personal data information and financial data.
- 4) Quality / Benefit information is the suitability of information with the needs and goals desired by customers.
- 5) Ease of Use / Usability (ease of use / usability), is a business needed by customers in getting access to available information.
- 6) Web Design is an aesthetic feature, catalog structure, and content of the application or site.

### 3. Research Methods

The population in this study was students of the Faculty of Economics and Business, University of North Sumatra who were still active, who used an unknown number of OVO applications. The number of population from this study is not accurately yet known, therefore to determine the size of the sample, the formula proposed by Wibisono in Riduwan and Akdon (2013) is used, namely as follows:

$$n = \left( \frac{Z_{\alpha/2} \sigma}{e} \right)^2$$

$$n = \left( \frac{(1,96) (0,25)}{0,05} \right)^2$$

$$n = 96.04$$

**Description:**

$n$  = sample size

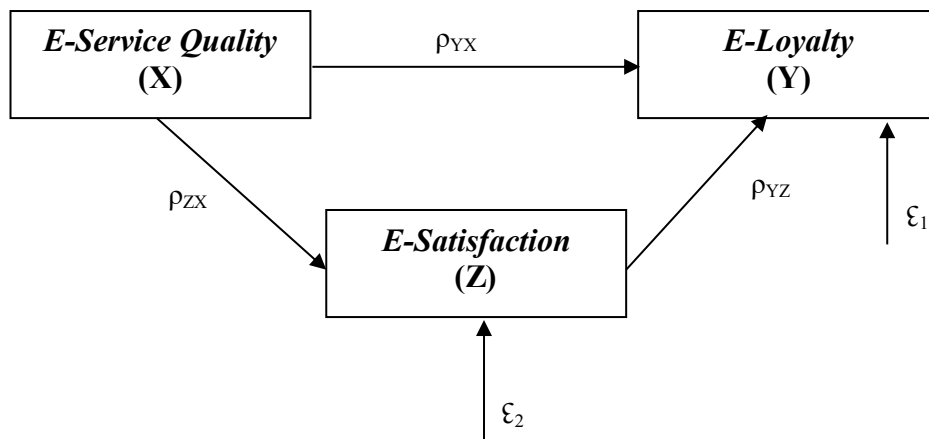
$Z_{\alpha/2}$  = Normal Z score for 95% confidence level. In the study used  $\alpha = 5\%$ , so from the Z distribution table obtained = 1.96.

$\sigma$  = Standard deviation = 0.25

$e$  = error estimate (maximum error rate), in this case set a maximum error rate of 5%

Through the calculation above, the sample needed is a minimum of 96.04. In order for answers from respondents through questionnaires to be more representative, the researchers determined the number of samples to be 97 respondents. Furthermore, the sampling technique in this study used the nonprobability sampling method. The nonprobability sampling technique used by the author in this study is by using accidental sampling technique. This study uses a questionnaire that was distributed to the respondents of the study as many as 97 respondents with the number of questionnaires as well as 97 exemplars. All statements on the questionnaire were answered / filled out by respondents consisting of 10 statements for e-service quality (X) variables, 12 statements for e-satisfaction (Z) variables, and 12 statements for e-loyalty variables (Y).

Data analysis method uses path analysis with the help of SPSS software. The following are structural equation models and path analysis models in this study.



**Figure 1:** Depiction of Path Analysis Assumptions

The first substructure equation:

$$Z = \rho_{ZX} X + \epsilon_2$$

The second substructure equation:

$$Y = \rho_{YX} X + \rho_{YZ} Z + \epsilon_1$$

Description:

Y = e-loyalty

Z = e-satisfaction

X = e-service quality

ε<sub>1,2</sub> = Error

ρ = Path coefficient

## 4. Results and Discussion

### 4.1 Results

#### A. Substructure Regression Analysis Model I

The results of the substructure I regression analysis model are shown in the following table:

**Table 1:** Substructure Regression Analysis Model I

Coefficients <sup>a</sup>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4,031	1,527		2,640	,010
1 E-Service Quality	,844	,044	,893	19,363	,000

a. Dependent Variable: E-Satisfaction

By using the help of IBM SPSS Statistics software 20, the results of regression analysis for substructure I are obtained as follows:

$$Z = 0.893X$$

From the equation of the substructure I regression model it can be explained that:

1. From the equation of the substructure I regression model, it can be explained that the effect of e-service quality on e-satisfaction is 0.893, which means that if e-service quality rises by 1 unit, then e-satisfaction will rise by 0.893.
2. The e-service quality variable has  $t_{count} > t_{table}$  that is  $19.336 > 1.98$  with a significant value of  $0.000 < 0.05$ , so it can be concluded that the e-service quality variable has a positive and significant effect on e-satisfaction.

In addition, the results of the test coefficient of determination of substructure I are as follows:

**Table 2:** Substructure I Determination Coefficient Test Results

Summary<sup>b</sup> model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,893 <sup>a</sup>	,798	,796	2,09413

a. Predictors: (Constant), E-Service Quality  
 b. Dependent Variable: E-Satisfaction

From Table 2, it can be seen that the coefficient of determination (Adjusted R Square) is equal to 0.796 or 79.6% which indicates that the ability of e-service quality in explaining its influence on e-satisfaction is 79.6% while the rest is 20.4 % is influenced by other variables not examined in this study.

### B. Substructure Regression Analysis Model II

Then the results of the substructure II regression analysis are shown in the following table:

**Table 3:** Substructure Regression Analysis Test Results II  
**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1,119	1,302		,860	,392
1 E-Service Quality	,378	,080	,384	4,741	,000
E-Satisfaction	,601	,084	,576	7,112	,000

a. Dependent Variable: E-Loyalty

Based on Table 3, a regression model can be made for substructure II, namely:

$$Y = 0.384X + 0.576Z$$

From the equation of the substructure II regression model it can be explained that:

1. The effect of e-service quality on e-loyalty is 0.384, which means that if e-service quality increases by 1 unit, e-loyalty will increase by 0.384.
2. The effect of e-satisfaction on e-loyalty is 0.576, which means that if e-satisfaction increases by 1 unit, then e-loyalty will increase by 0.576.
3. The e-service quality variable has a  $t_{count}$  greater than  $t_{table}$  that is  $4.741 > 1.98$  with a significant value of  $0.000 < 0.05$ , so it can be concluded that the e-service quality variable has a significant effect on e-loyalty, and also it can be seen that the e-service quality variable has a positive influence on the e-loyalty variable, which can be seen in a positive sign on  $t_{count}$ , which shows that if e-service quality increases, it will be able to increase e-loyalty, and vice versa, if e-service quality decreases it will cause e-loyalty to also decrease.
4. The e-satisfaction variable has a  $t_{count}$  greater than  $t_{table}$  that is  $7.112 > 1.98$  with a significant value of  $0.000 < 0.05$ . So it can be concluded that the e-satisfaction variable has a significant effect on e-loyalty, and it can also be seen that the e-satisfaction variable has a positive effect on the e-loyalty variable, which can be seen on the positive sign on  $t_{count}$ , which indicates that if e -satisfaction has increased then it will be able to increase e-loyalty, and vice versa, if e-satisfaction decreases it will cause e-loyalty also decreases.



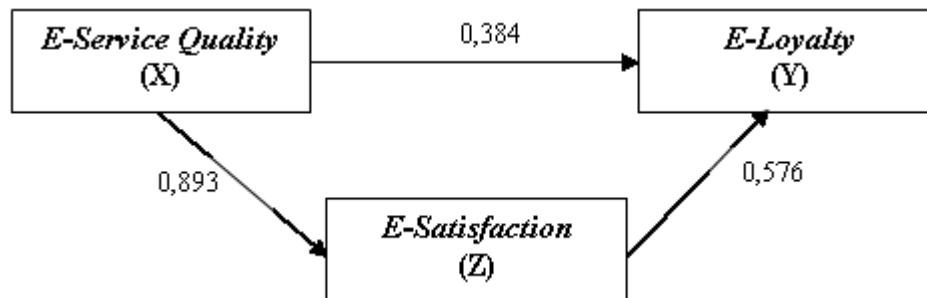
The results of testing the coefficient of determination can be seen in Table 4.

**Table 4:** Substructure II Determination Coefficient Test Results

Summary<sup>b</sup> model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,936 <sup>a</sup>	,875	,873	1,72362
a. Predictors: (Constant), E-Satisfaction, E-Service Quality				
b. Dependent Variable: E-Loyalty				

Table 4 shows that the coefficient of determination (Adjusted R Square) is 0.873 or 87.3%, which means that the effect of the variable e-service quality and e-satisfaction on e-loyalty is 87.3%, while the rest is 12.7% can be influenced by other variables not examined in this study. Based on the results of the first and second sub-structural (substructure) analysis, the path diagram can be described, namely:



**Figure 2:** Path Diagram

The substructure I structural equation is:

$$Z = 0,893X$$

The substructure II structural equation is:

$$Y = 0,384X + 0,576Z$$

The direct effect between the independent variable (X), the intervening variable (Z) and the dependent variable (Y) in this study can be seen from the following explanation:

- 1) The direct effect of the e-service quality variable and the e-satisfaction variable (X → Z) is 0,893.
- 2) The direct effect of the e-satisfaction variable and e-loyalty variable (Z → Y) is 0,576.
- 3) The direct effect of the variable e-service quality and e-loyalty variable (X → Y) is 0,384.

The indirect effect between the independent variable (X), the intervening variable (Z) and the dependent variable (Y) in this study can be explained as follows:

The indirect effect of variable e-service quality on e-loyalty variables through the e-satisfaction variable ( $X \rightarrow Z \rightarrow Y$ ).

$$X \text{ through } Z \text{ towards } Y = 0,893 \times (0,576) = 0,514.$$

Total effect is the number of direct effects coupled with the number of indirect effects, which can be described as follows:

$$\begin{aligned} \text{Total Influence } (X \rightarrow Y) &= \text{Direct Effect} + \text{Indirect Effects} \\ &= 0,384 + 0,514 \\ &= 0,898 \end{aligned}$$

From this details, it can be explained that the e-service quality (X) variable can directly influence the e-loyalty variable, which is indicated by the direct effect value of  $X1 \rightarrow Y$ , which is 0,384 is smaller than the indirect effect variable  $X1 \rightarrow Y$ , i.e. 0,514, as a result, it can be concluded that the variable has an indirect relationship and the relationship between variable X and Y is positive.

## 4.2 Discussion

### E-Service Quality Has Positive and Significant Impact on E-Loyalty

The results showed that e-service quality had a positive and significant effect on e-loyalty, which means that if e-service quality in the OVO application is good then it will increase e-loyalty from its users. Conversely, if e-service quality in OVO applications is not good, it will reduce the loyalty of OVO application users. In Indonesia, not only goods products that use information technology media, but service products also use internet-based information technology media. A person's loyalty can be influenced by the services delivered by the company, both public services and e-service services. A service that is given to customers and surpasses the expectations of its customers, regulars tend to repurchase (David, 2018). In addition, according to Ariyanto (2003) customer satisfaction will increase consumer loyalty of a company and consumers are not easy to bid from competition. Customer satisfaction will increase consumer loyalty. Satisfied consumers will feel the value or benefits of the products they buy at the online store.

The results of the study show that the students of OVO users at Faculty of Economics and Business in North Sumatra University are still in the category of those who are not loyal to use the OVO application. The OVO users still feel reluctant to recommend OVO applications to others because there are still weaknesses in this OVO application. OVO users think that this OVO application cannot be used to perform various kinds of online payment transactions, such as for ticket payments, shopping in e-commerce, etc. Therefore, they will seek other alternatives to make online payment transactions such as using mobile banking which has been provided by the bank. The average OVO user at North Sumatra University's Faculty of Economics and Business

does use the OVO application only for online motorcycle taxi transactions, top-up purchases, shopping or dining at merchants who work in partnership with OVO, and also pay for parking in shopping centers that team up with OVO.

From some of the explanations above, it can be concluded that e-service quality has a positive and significant effect on e-loyalty for students of OVO users at North Sumatra University's Faculty of Economics and Business. The more online payment transactions that can be used through this OVO application, it will increase the loyalty of OVO users at North Sumatra University's Faculty of Economics and Business because it can save time from OVO users, especially North Sumatra University's Faculty of Economics and Business female students in making online payment transactions. In addition, OVO application users at North Sumatra University's Faculty of Economics and Business also want clear information so that later they will know what benefits they can get if they use the OVO application. This is consistent with the view of Anderson and Srinivasan (2003) and Pasha (2017) who stated that e-service quality has a positive and significant effect on e-loyalty. In addition, Riza and Sutopo (2017) expressed the same understanding that e-service quality has a positive and significant influence on e-loyalty, the better and relevant information obtained by customers, the customer loyalty will increase.

#### **4.3 E-Service Quality Has Positive and Significant Impact on E-Satisfaction**

The results showed that e-service quality has a positive and significant effect on e-satisfaction, which means that if e-service quality in OVO applications is good, then it will increase e-satisfaction from its users, and vice versa if e-service quality from the OVO application is not good, it will reduce the sense of satisfaction (e-satisfaction) of OVO users, namely students at North Sumatra University's Faculty of Economics and Business. Customer satisfaction is very important for a company. There are many factors that can affect customer satisfaction, one of which is e-service quality (David, 2018).

This OVO application is still quite new among mobile payment applications so that it is still a good adjustment so that later it can be used by its users to make many payment transactions online. From the results of this study, it can be seen that the reliability dimension of e-service quality is still not good; the respondents stated that they have not been able to do many payment transactions using the OVO application. OVO application users at North Sumatra University's Faculty of Economics and Business, who are college students, are more likely to use applications to make online motorcycle taxi payments that have collaborated with OVO and also to meet their needs in terms of food and payments in shopping centers that have collaborated with OVO.

Besides, the information quality / benefit dimension of e-service quality is still not good, the respondents stated that the information submitted by OVO is not very clear, such as promo information or reward points so that it ] makes OVO users at North Sumatra University's Faculty of Economics and Business have little information on the benefits of using the OVO application. The availability of more diverse

information (wider and quality) leads to better purchasing decisions and high levels of satisfaction (Peterson, et al. In Riza and Sutopo, 2017). From a number of opinions above, it can be concluded that good e-service quality from the OVO application will be able to improve the e-satisfaction of OVO users in this study, namely students North Sumatra University's Faculty of Economics and Business. This is in accordance with the opinion of Riza and Sutopo (2017) which state that e-service quality has a positive and significant influence on e-satisfaction. Tobagus (2018) and Magdalena and Jaolis (2018) also expressed the same opinion that e-service quality had a positive and significant effect on e-satisfaction.

#### **4.4 E-Satisfaction Has Positive and Significant Effects on E-Loyalty**

The results showed that e-satisfaction has a positive and significant effect on e-loyalty, which means that if e-satisfaction from OVO application users in North Sumatra University's Faculty of Economics and Business is good and increasing, it will increase the level of loyalty of these users, and vice versa if e-satisfaction from OVO application users at North Sumatra University's Faculty of Economics and Business decreases, it will cause the loyalty of OVO application users to be lessening. Consumer satisfaction shows that there is a good relationship between the company and consumers; consumer satisfaction is very useful to achieve customer loyalty. According to Jeon (2017), e-loyalty is defined as the attitude of consumers that benefits online sellers, which results in repeat purchases, e-loyalty is the impact of customer satisfaction on service quality. Having loyal customers is very beneficial for online companies, given the high competition of online sales, loyal consumers will recommend to friends and their families to participate in making purchases. Having consumers who will benefit the company in terms of profits, the company will reduce the cost of advertising for new consumers and the company does not need to worry about who will buy the product later.

From the results of the study, it can be seen that all dimensions of e-loyalty are in the category of disagreement so that it also impacts on e-satisfaction. OVO users are not satisfied with the features in the OVO application because they have not been able to do many payment transactions online, merchants who work with OVO are only in certain places so that it causes them to be unwilling to recommend OVO applications to others. In addition, OVO users at North Sumatra University's Faculty of Economics and Business also use other similar applications as their application to make payment transactions online. Thus it can be concluded that the respondents of the study, North Sumatra University's Faculty of Economics and Business students were not satisfied in using the OVO application so that it could have an impact on their loyalty to this OVO application. According to Wijiutami and Octavia (2017) electronic satisfaction has a direct and significant influence on electronic loyalty. In addition, according to Lorena (2018) online consumer satisfaction or e-satisfaction has a significant effect on online consumer loyalty. This shows that the more OVO users at North Sumatra University's

Faculty of Economics and Business are satisfied with the services and products provided, the more it will affect the loyalty of OVO users.

#### **4.5 E-Service Quality Has Positive Impact on E-Loyalty through E-Satisfaction**

Based on the results of the study, it can be seen that e-service quality affects e-loyalty through e-satisfaction, which means that e-satisfaction can mediate the relationship between e-service qualities to e-loyalty or e-service quality has an indirect relationship to e-loyalty through e-satisfaction. In addition, the results of the study show that e-service quality has a positive effect on e-loyalty through e-satisfaction, which means that the better quality of products or services from the OVO application will increase the satisfaction of OVO users at North Sumatra University's Faculty of Economics and Business, who are students so that later they will continue to use this OVO application not only to pay motorcycle taxi transactions online but also can make other payment transactions. Conversely, if the quality of the product or service from the OVO application is not good, it will cause users to feel dissatisfied so that it will have an impact on customer loyalty that is diminishing.

A customer's loyalty can arise because he is satisfied with what he receives. A customer who gets what he wants tends to be loyal to the company (David, 2018). With the good quality of service, customers will be satisfied and loyal. In some studies there is a positive relationship between customer satisfaction and customer loyalty (Tam, 2012). When customers are satisfied with a site, they will be willing to interact more with the site in the future and become loyal customers (Fang, et al., 2011). Customer loyalty is needed by the company because without the loyalty of customers, the company will not be able to develop properly. The results of the study (Zha, et al., 2006) state that e-satisfaction is an important factor that plays a role in building e-loyalty. The results of this study in accordance with Akbar's opinion (2016) in which it found that e-service quality indirectly affect e-customer loyalty through e-customer satisfaction. This shows that the better the e-service quality will increase the level of customer loyalty. However, in increasing e-customer loyalty, customers must be satisfied first. According to Wijiutami and Octavia (2017) electronic service quality for electronic satisfaction in forming electronic loyalty has a significant influence. Lorena (2018) explains that the results of the study of e-service quality variables have a significant effect on e-loyalty indirectly through e-satisfaction.

### **5. Conclusion**

- 1) E-service quality has a positive and significant effect on e-satisfaction on students of OVO application users at the Faculty of Economics and Business, University of North Sumatra.
- 2) E-service quality has a positive and significant effect on e-loyalty on students of OVO application users at the Faculty of Economics and Business, University of North Sumatra.

- 3) E-loyalty has a positive and significant effect on e-satisfaction on students of OVO application users at the Faculty of Economics and Business, University of North Sumatra.
- 4) E-service quality has a positive effect on e-loyalty through e-satisfaction on students of OVO application users at the Faculty of Economics and Business, University of North Sumatra.

## 6. Recommendation

- 1) To improve customer satisfaction, OVO application service providers should develop features in their applications so that they can be used for various types of online payment transactions.
- 2) The author recommends that OVO increase the number of merchants or outlets not only in big cities but also includes other small cities so that this OVO application can be used in many areas with various social classes as well.
- 3) The OVO must provide more information about the OVO application more clearly and in detail, so that OVO users can know for sure about the benefits of using OVO.
- 4) For the next researcher, it is better to do research on other variables besides the variables studied by the writer so that variables can increase consumer loyalty, especially in the digital world today, such as trust, ease of online transactions, emotional ties, experience with companies, and so on.

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ON STUDENTS OF OVO APPLICATION USERS AT THE FACULTY OF ECONOMICS AND  
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