

## THE EFFECT OF PRIVACY PERCEPTION AND SECURITY PERCEPTION ON CUSTOMER LOYALTY WITH TRUST AS AN INTERVENING VARIABLES IN ZALORA E-COMMERCE

(A Case Study of Zalora Users in Yogyakarta City)

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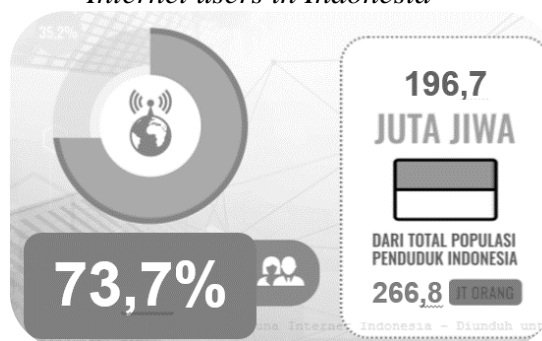
**Abstract :** *A business using the internet will have a great opportunity to develop. Business activity through popular internet media is called electronic commerce (e-commerce). There are lots of e-commerce that offer various kinds of goods needed by consumers. Starting from daily necessities or other additional items are widely offered in online shops. Some online shopping sites are even favored and have good ratings by consumers, one of which is Zalora Indonesia. This study aims to determine (1) the effect of Perceptions of Privacy on Trust (2) the effect of Perceptions of Security on Trust (3) the effect of Trust on Loyalty. The sample in this study was 100 respondents from the city of Yogyakarta who had shopped using the Zalora Indonesia e-commerce. The data collection method uses a questionnaire that is distributed using a purposive sampling technique. This study using the Data Quality Test, Classical Assumption Test, Multiple Regression Test, and Hypothesis Test. The results of this study indicate (1) there is a positive and significant influence on Perceived Privacy on Trust (2) there is a positive and significant effect on Perceived Security on Trust (3) there is a positive and significant effect of Trust on Loyalty.*

**Keywords :** *E-commerce, Zalora, Perceived Privacy, Perceived Security, Trust, Loyalty*

### 1. INTRODUCTION

Information technology and the development of the online world make the competition faced by companies getting tougher. The Internet has experienced rapid growth in the field of information and communication technology in recent years. According to the survey results APJII (Asosiasi Pengguna Jasa Internet Indonesia, 2020)

Figure 1.1  
Internet users in Indonesia



Data source : Assosiasi Pengguna Jasa Internet Indonesia (APJII) 2020

The graph above shows that internet users in Indonesia until the second quarter of 2020 reached 196.7 million out of a total population of 266.8 million or 73.7% of Indonesians. By looking at these data, we can see that more than half of Indonesia's population are Internet users. It makes a business using the internet very likely to develop. Business activity through popular internet media is called electronic commerce (e-commerce).

E-commerce is transactions that include various kinds of business activities, from purchases to sales made through internet-based network media (Peter et al., 2014). With e-commerce, people have started to think about the impact and benefits they will get when they make purchases online. This online shopping behavior has influenced consumers all over the world. Likewise, consumers in Indonesia have started to enjoy and choose to transact using e-commerce for various reasons. Consumers feel comfortable as external users who don't have to waste time shopping online.











In general, every website or e-commerce site often asks for personal identity such as customer names, e-mail addresses, telephone numbers, etc. Consumers are aware that sellers are trying to track data such as products purchased, payment methods used, credit card numbers, product choices. Transaction history is collected, stored, and analyzed by the e-business system, used to evaluate purchasing behavior (Nurhatinah, 2018). Collecting data is privacy to assess customer needs and improve services, but the threat of infringement is very high in internet use. The transfer of personal data between the internet is of concern to consumers. Privacy itself is an important dimension that can influence users' interest in adopting electronic system-based transactions (Kinasih & Albari, 2012).

Security perceptions can be in the form of threats that create conditions, circumstances, or events that have the potential to cause economic difficulties through data sources or networks that experience data collection and modification damage, denial of service, or fraud and abuse of authority (Kinasih & Albari, 2012). In maintaining consumer safety, every e-commerce must comply with the regulations regarding e-commerce in Indonesia, as stated in Law Number 7 of 2014, to provide legal certainty and protection for actors in the e-commerce sector. Even though regulations are made, this law is deemed unable to stand alone in regulating matters in the e-commerce sector (IESE accessed January 17, 2021).

With the rapid development of e-commerce in the 4.0 era, several things need to be paid close attention to by e-commerce businesses: consumer trust. Many consumers who still practice the traditional way have low confidence in e-commerce, especially privacy and information security (Kinasih & Albari, 2012). There are lots of e-commerce that offer various kinds of goods needed by consumers. Starting from daily necessities or other additional items are widely provided in online shops. Some online shopping sites are even favored and have good ratings by consumers, one of Zalora.

In a survey conducted by iprice.co.id. By ranking the big e-commerce players based on the average website visitors in each quarter, app ranking, social media followers, and employees. Zalora is in the first rank for e-commerce that sells fashion needs with monthly website visitors reaching 1,828,500 people.

*Table 1.1*  
*Ranking of Fashion E-commerce in Indonesia Quartal 3 2020*

Toko Online	Pengunjung Web Bulanan	Ranking AppStore	Ranking PlayStore	Twitter	Instagram	Facebook	Jumlah Karyawan
1  Zalora	1,828,500	#6	#8	900	619,100	7,843,300	562
2  Sophie Paris	507,500	n/a	n/a	33,600	1,121,100	1,974,400	597
3  Jam Tangan	500,000	#14	#12	n/a	246,000	340,100	n/a
4  Mapemall	390,300	#11	#17	9,500	49,200	207,400	3,400
5  Sorabel	263,800	#19	#10	13,700	1,040,500	4,270,500	316
6  Orori	202,100	n/a	n/a	2,400	46,600	231,400	38
7  Mamaway	88,500	n/a	n/a	200	32,500	315,300	1
8  Bro.do	87,100	n/a	n/a	20,300	762,000	1,222,400	70
9  Bobobobo	70,300	n/a	n/a	3,500	140,400	223,300	42
10  Berrybenka	65,700	#16	#19	15,200	555,200	932,400	208

Data source : *iprice.co.id*

Zalora is an online fashion retail e-commerce that was founded in 2012. With a choice of more than 500 local and international brands in women's clothing, men's clothing, shoes, bags, accessories, sports equipment, Muslim garb, and many more. More than 30,000 products online, and hundreds of new products are sold every week. However, from several countries visited by Zalora, Indonesia has the most consumers compared to other countries.

Based on the description above, the authors are interested in conducting research for the above problems in the research entitled “Pengaruh Persepsi Privasi dan Persepsi Keamanan Terhadap Loyalitas Pelanggan dengan Kepercayaan Sebagai Variabel Intervening Pada E-commerce Zalora”

## 2. RESEARCH METHOD

### Nature of Research

This research uses descriptive quantitative research because the data in this study are numbers, and the analysis uses statistics. Quantitative descriptive research is a series of tasks that are often required to use numbers. These data are obtained from questionnaires distributed to respondents, then processed and analyzed to obtain scientific information. The research questionnaire was first tested for validity and reliability. The validity test uses the Pearson Product Moment Correlation formula, and the reliability test uses the Cronbach Alpha formula. The data analysis method used is the Classical Assumption Test Analysis, Multiple Regression Test and Single Test. Data analysis in this study used the SPSS version 17 computer assistance program.

### Population

According to Sugiyono (2008) in (Ilmiyah & Krishernawan, 2020) is a generalization area consisting of objects/subjects with specific qualities and characteristics determined by researchers to conclude a study. The population in this study is the unknown number of Zalora e-commerce users in Yogyakarta.

### Sample

The samples in this study are consumers of Zalora e-commerce who have the following characteristics: male or female respondents aged 15-50 years; Respondents who have made purchase transactions through Zalora e-commerce (at least two times); The time of purchase that the respondent has made at least in the last six months; Have bought products at Zalora at least 2 (two) times.

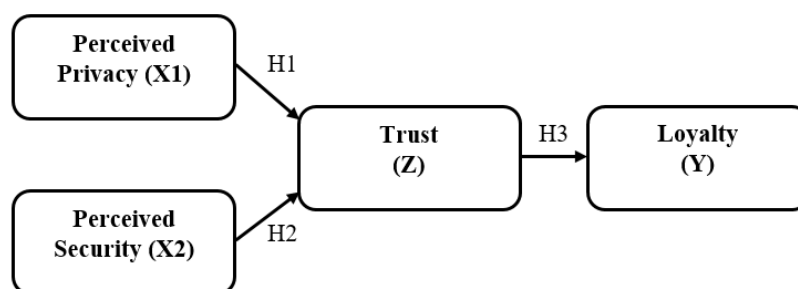
### Sampling Technique

The method used by the researcher, namely purposive sampling, is sampling carried out with several considerations, meaning that before the sample is taken, it is determined what kind of sample limit will be accepted (Sugiyono, 2018) (Ilmiyah & Krishernawan, 2020). The data used as a consideration in this study are primary. The data collection technique used is a survey method that uses a questionnaire in the form of a list of questions about the general description of the respondent's attention and the respondent's opinion about the research object.

### Framework

This study discusses independent variables, namely Perceived Privacy, Perceived Security, on Loyalty's dependent variable with Trust as an intervening variable. Then a theoretical framework is developed that underlies research systematically and multiply, which can be described as follows:

Figure 1.2  
Result of the structural model



## 3. RESULTS AND DISCUSSION

### Data Quality Test

#### Validity test

The validity test is done by comparing the calculated r-value with the r table for degree of freedom (df) = n - 2, then df = 100 - 2 = 98, then r table = 0.197. The following are the results of the validity test of each research variable.

Variable	Indicator	R Count	R Table	Information
Perceived Privacy	X1.PP1	0,498	0,197	Valid
	X1.PP2	0,431	0,197	Valid
	X1.PP3	0,505	0,197	Valid
	X1.PP4	0,523	0,197	Valid
	X1.PP5	0,464	0,197	Valid

Variable	Indicator	R Count	R Table	Information
Perceived Security	X2.PK1	0,507	0,197	Valid
	X2.PK2	0,441	0,197	Valid
	X2.PK3	0,446	0,197	Valid
	X2.PK4	0,434	0,197	Valid
	X2.PK5	0,409	0,197	Valid
	X2.PK6	0,483	0,197	Valid

Variable	Indicator	R Count	R Table	Information
Trust	Z.Kep1	0,404	0,197	Valid
	Z.Kep2	0,383	0,197	Valid
	Z.Kep3	0,418	0,197	Valid
	Z.Kep4	0,424	0,197	Valid
	Z.Kep5	0,371	0,197	Valid
	Z.Kep6	0,285	0,197	Valid
	Z.Kep7	0,328	0,197	Valid
	Z.Kep8	0,312	0,197	Valid
	Z.Kep9	0,307	0,197	Valid

Variable	Indicator	R Count	R Table	Information
Loyalty	Y.Lo1	0,528	0,197	Valid
	Y.Lo2	0,358	0,197	Valid
	Y.Lo3	0,438	0,197	Valid
	Y.Lo4	0,463	0,197	Valid
	Y.Lo5	0,441	0,197	Valid
	Y.Lo6	0,493	0,197	Valid

Based on the validity test of the table above, all have an r-count greater than the r-table (0.197). It can conclude that all items are declared valid, and all questions/statements in the research instrument can be declared appropriate as an instrument for measuring research data.

### Reliability Test

Variable	Alpha Cronbach's	Critical Value	Information
Perceived Privacy	0,724	0,6	Reliable
Perceived Security	0,721	0,6	Reliable
Trust	0,683	0,6	Reliable
Loyalty	0,716	0,6	Reliable

Based on the data in the table above, it can conclude that Cronbach's Alpha value is above 0.6, so all variables are declared reliable and suitable for further testing.

**Classic assumption test**

**Normality test**

**Equation 1**

**Kolmogorov-Smirnov Test  
One-Sample Kolmogorov-Smirnov Test**

		Unstandardized Residual
N		100
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	2.34933131
Most Extreme Differences	Absolute	.074
	Positive	.074
	Negative	-.040
Kolmogorov-Smirnov Z		.745
Asymp. Sig. (2-tailed)		.636

a. Test distribution is Normal.

b. Calculated from data.

**Equation 2**

**One-Sample Kolmogorov-Smirnov Test**

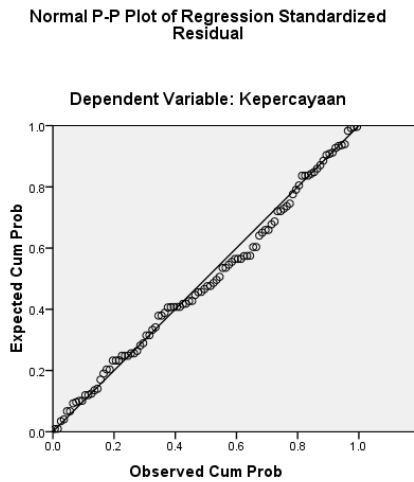
		Unstandardized Residual
N		100
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	1.97287465
Most Extreme Differences	Absolute	.096
	Positive	.064
	Negative	-.096
Kolmogorov-Smirnov Z		.960
Asymp. Sig. (2-tailed)		.315

a. Test distribution is Normal.

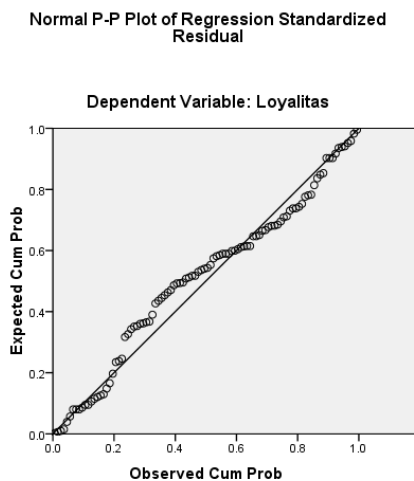
b. Calculated from data.

Based on the table above, it can be concluded that the residual regression model is normally distributed. This is indicated by the significance value or the asymp.sig value. (2-tailed) is greater than 0.05. it can see it from the asymp.sig value. (2-tailed) 0.636 which means  $0.636 > 0.05$  and  $0.315 > 0.05$ .

## P-Plot Equation 1



## Equation 2



Based on the picture above, it can conclude that the standard plot graph provides a normal distribution. It can be seen from the points that spread around the diagonal line, and the distribution follows the direction of the diagonal line. These two graphs show that the regression model meets the normality test and is consistent with Kolmogorov-Smirnov.

**Multicollinearity test**  
**Equation 1**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	12.323	2.060		5.983	.000		
	Perceived Privacy	.528	.126	.376	4.179	.000	.567	1.764
	Perceived Security	.530	.108	.442	4.911	.000	.567	1.764

a. Dependent Variable: Trust

**Equation 2**

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.955	2.034		.961	.339		
	Perceived Privacy	.367	.116	.317	3.163	.002	.480	2.082
	Perceived Security	.045	.102	.046	.445	.657	.454	2.203
	Trust	.366	.086	.445	4.269	.000	.445	2.248

a. Dependent Variable: Loyalty

Based on the results of the calculation of the tolerance value in table 4.17, it shows that the tolerance value of the independent variables is Privacy Perception 0.480, Security Perception 0.445, and Trust 0.445, which means that the four variables have a tolerance of more than 0.1 which means there is no correlation between the independent variables. The results of the calculation of the Variance Inflation Factor (VIF) value of the independent variable, namely Privacy Perception with a VIF value of 2.082, Security Perception with a VIF value of 2.203, and Trust with a VIF value of 2.248, which means that the three variables have a VIF value of less than 10. So it can be concluded take into account that there is no multicollinearity between the independent variables in the regression model.



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**Heteroscedasticity test****Glatcer test****Equation 1****Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.062	1.294		.821	.416
	Perceived Privacy	-.174	.098	-.416	-1.770	.084
	Perceived Security	.110	.084	.306	1.305	.199

a. Dependent Variable: LN\_RES1

**Equation 2****Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.149	1.405		-.106	.916
	Perceived Privacy	.071	.077	.180	.920	.362
	Perceived Security	-.108	.077	-.304	-1.408	.165
	Trust	.032	.071	.107	.454	.652

a. Dependent Variable: LN\_RES2

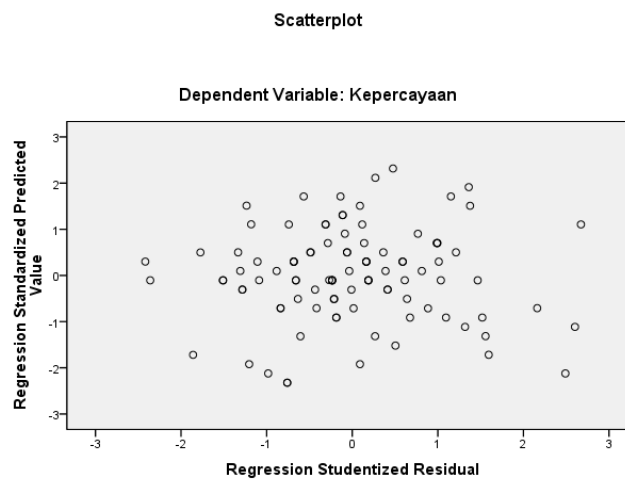
As seen in the table above, the heteroscedasticity test can be seen from the significant value of a variable, namely the Privacy Perception variable with a significance value of 0.084 and the Security Perception variable with a significance value of 0.199. This shows that the two

variables have a significance value of more than 0.05. So from the table above, it can be concluded that heteroscedasticity does not occur.

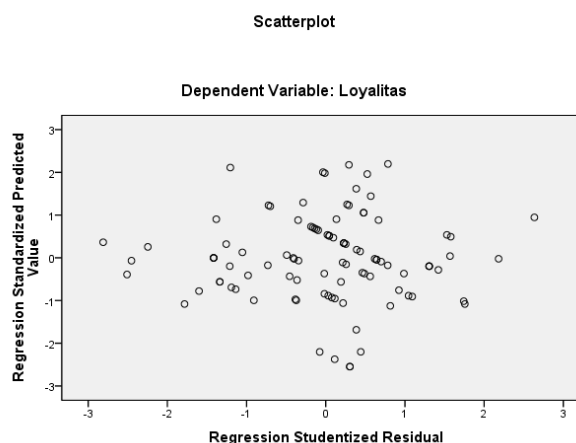
As seen in the table above, the heteroscedasticity test can be seen from the significant value of a variable, namely the Privacy Perception variable with a significance value of 0.362, the Security Perception variable with a significance value of 0.165, the Trust variable with a significance value of 0.652. This shows that the four variables have a significance value of more than 0.05. So from the table above, it can be concluded that heteroscedasticity does not occur.

### Scatterplot test

#### Equation 1



#### Equation 2



Based on the picture above, the scatterplot graph shows that the dots are spread randomly and are scattered above or below the number 0 on the Y-axis. It can be concluded that there is no heteroscedasticity in the regression model.

**Multiple Regression test****T test****Equation 1****Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.323	2.060		5.983	.000
	Perceived Privacy	.528	.126	.376	4.179	.000
	Perceived Security	.530	.108	.442	4.911	.000

a. Dependent Variable: Trust

**Equation 2****Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.955	2.034		.961	.339
	Perceived Privacy	.367	.116	.317	3.163	.002
	Perceived Security	.045	.102	.046	.445	.657
	Perceived Privacy	.366	.086	.445	4.269	.000

a. Dependent Variable: Loyalty

**4. DISCUSSION****The Effect of Perceptions of Privacy on Trust**

The effect of Privacy Perceptions on Trust based on the partial test (t count) of the Privacy Perception variable is 4.179 while the t table value is at a significance level of 5% (0.05) and  $df = 98$  ( $100-2$ ) is 1.660 which means  $t \text{ count} > t \text{ table}$  ( $4,179 > 1,660$ ). Meanwhile, the significance value is 0.000 which means it is smaller than 0.05 ( $0.000 < 0.05$ ). This shows that the Privacy Perception variable has a positive and significant effect on the Trust variable, so it can be concluded that it can prove that  $H_0$  is rejected and  $H_a$  is accepted, which means that Privacy Perception has a positive and significant effect on the Trust variable. "Proven". Based on the test results above, it shows that the highest assessment for agreeing answers to the

Privacy Perception variable occurs in the statement I think Zalora will not provide information on my transaction data to other parties. This statement proves that Zalora e-commerce users in Yogyakarta trust Zalora and are confident that Zalora will not leak consumer personal information to other parties. The results of this study also support research conducted by (Widodo & Susanto, 2018) which states that Privacy Perceptions have a positive and significant effect on trust.

### **The Effect of Perceptions of Security on Trust**

The effect of Privacy Perceptions on Trust based on the partial test (t count) of the Privacy Perception variable is 4.179 while the t table value is at a significance level of 5% (0.05) and  $df = 98$  ( $100-2$ ) is 1.660 which means  $t \text{ count} > t \text{ table}$  ( $4,179 > 1,660$ ). Meanwhile, the significance value is 0.000, which means it is smaller than 0.05 ( $0.000 < 0.05$ ). This shows that the Privacy Perception variable has a positive and significant effect on the Trust variable, so it can be concluded that it can prove that  $H_0$  is rejected and  $H_a$  is accepted, which means that Privacy Perception has a positive and significant effect on the Trust variable. "Proven" Based on the test results above, it shows that the highest assessment for agreeing to answers to the Privacy Perception variable occurs in the statement I think Zalora will not provide information on my transaction data to other parties. This statement proves that Zalora e-commerce users in Yogyakarta trust Zalora and are confident that Zalora will not leak consumer personal information to other parties. The results of this study also support research conducted by (Widodo & Susanto, 2018) which states that Privacy Perceptions have a positive and significant effect on trust.

### **The Effect of Trust on Loyalty**

The effect of trust on loyalty based on the partial test (t count) of the trust variable is 4.269 while the t table value is at a significance level of 5% (0.05) and  $df = 98$  ( $100-2$ ) is 1.660, which means  $t \text{ count} > t \text{ table}$  ( $4.269 > 1,660$ ). Meanwhile, the significance value is 0.000, which means it is smaller than 0.05 ( $0.000 < 0.05$ ). This shows that the trust variable has a positive and significant effect on the loyalty variable, so it can be concluded that it can prove that  $H_0$  is rejected and  $H_a$  is accepted, which means that trust has a positive and significant effect on the loyalty variable. "Proven" Based on the test results above, it shows that the highest assessment for agreeing to answers to the trust variable occurs in the statement that Zalora will provide the products needed. This statement proves that consumers shop a lot at Zalora because Zalora provides various products required by consumers. This study also supports the research conducted by (Rafiah, 2019), which states that trust has a positive and significant effect on loyalty.

## **5. CONCLUSION**

Based on the analysis and discussion, the following conclusions can be drawn :

- 1) The study results found that the perception of privacy has a positive and significant effect on trust in users of the Zalora e-commerce site in Yogyakarta. This means that the higher the ability of customers to control privacy when online transactions occur, the higher the level of trust in Zalora e-commerce. This proves that Zalora e-commerce users in Yogyakarta trust Zalora and are confident that Zalora will not leak personal information or consumer privacy to other parties.
- 2) The study results found a positive and significant effect of Security Perceptions on Trust in users of the Zalora e-commerce site in Yogyakarta. This proves that Zalora can maintain

user data and information confidentiality, thus making users more confident and feel safe shopping at Zalora.

- 3) The study results found a positive and significant effect of trust on loyalty among users of the Zalora e-commerce site in Yogyakarta. This proves that users who make transactions or shop at Zalora believe that Zalora can provide various products needed by consumers.

### Suggestions

**Based on the above conclusions, then suggestions can be proposed which are expected to be useful for Zalora's e-commerce :**

- 1) Practical suggestions are raised based on the theories that have been built and are based on the research results obtained. The results of descriptive statistics in this study can be used as additional sources of reference and information. Based on the research results, the lowest assessment of the Privacy Perception variable with the statement "I think Zalora complies with the data protection law" This statement is not accompanied by written evidence, so Zalora should include evidence that supports the statement and post it on the official Zalora website so that consumers can be more confident. And believe. Then there is the Security Perception variable which in the descriptive analysis, the lowest value is shown by the statement item "Zalora is able to guarantee the confidentiality of consumer data and information," so I suggest Zalora safeguard consumer data and information used to make transactions on Zalora so that consumers feel safe and are not anxious in making transactions.
- 2) For further research, it is necessary to add more variables that affect loyalty, such as product quality, promotion, price, etc. This study has not included variables on other aspects that might influence and further improve the results of this study and the steps that Zalora e-commerce must take to increase customer loyalty to Zalora.
- 3) For the Academic, it can be used as material for thoughts, considerations or research reference materials and others with variables of Privacy Perception, Security Perception, Trust, and Loyalty.

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