

# THE INFLUENCE OF BRAND IMAGE AND PRODUCT QUALITY ON XL CELLULAR NETWORK CUSTOMER LOYALTY (CASE STUDY ON XL CONSUMERS IN BOGOR)

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## Abstract

**Background:** In this era of globalization, internet networks have become a basic need for people to communicate and find the latest information about current conditions, and gadgets such as laptops, smartphones, tablets, notebooks and others have become a human need to complete life. There is a lot of competition for support this need. The strategy that can be used to win the competition is to create customer loyalty towards the product. Factors that play an important role in creating customer loyalty include brand image and product quality.

**Purpose:** This research aims to determine the influence of brand image and product quality simultaneously and partially on customer loyalty to XL cellular network products.

**Methodology:** The method used is multiple linear regression analysis with a sample size of 100 customers.

**Result:** The research results show that brand image and product quality simultaneously and partially have a positive and significant effect on customer loyalty for XL cellular network products.

*Keywords* - Brand Image, Product Quality and Customer Loyalty.

## I. INTRODUCTION

According to Kotler and Keller (2016) customer loyalty is a firmly held commitment to repurchase or to protect favorite products and services in the future even though situational influences and marketing efforts result in behavioral shifts. Perceptions that are in the minds and minds of consumers will cause feelings of satisfaction with the product and can also cause feelings of dissatisfaction or feelings of disappointment if the product does not match their wishes. If consumers are satisfied, consumers will make repeat purchases and come back again and can even become regular customers for the product. Conversely, if consumers are not satisfied, it is likely that consumers will leave the product. the product and turn away and change to another product. Customer loyalty is important in a business.

Customer loyalty has the main factors that influence customer loyalty are customer satisfaction, product or service quality, brand image, perceived value, trust, customer relationship, switching costs, reliability.

Customer loyalty is influenced by product quality. According to Wijaya (2018) product quality is the overall combination of product characteristics to meet customer expectations. Product quality itself has indicators, namely performance, aesthetics, ease of maintenance, features, reliability, quality conformity and appropriate usability.

Apart from product quality, what is often associated with customer loyalty is brand image. Brand image itself has several indicators, namely recognition, reputation, affinity and brand loyalty. According to Rangkuti (2015) brand image is an understanding of a brand that is concerned with brand associations that are embedded in the minds and minds of customers.

Sutra (2021) with the title analysis of the effect of product quality and brand image on customer loyalty, this study uses multiple regression analysis methods. The results of this study indicate that brand image and product quality simultaneously and partially have a positive and significant influence on consumer loyalty.

XL's cellular network began commercial operations on October 8, 1996, becoming the first private cellular company in Indonesia until 2022. In 26 years XL has grown into a large company today. Of course, the XL cellular network can survive due to good management and always wants to grow to be better than other cellular networks. The existence of various cellular networks in Indonesia makes competition for cellular networks, triggering the XL cellular network to foster a better brand image and product quality in order to increase customer loyalty. The Top Brand Index which is a brand strength measurement tool in the form of a form of recognition from consumers of a brand :

**Table 1 Top Brand Index Telecommunication Cellular Operators**

Brand	TBI			Ranking
	2020	2021	2022	
Simpati	34.60%	36.40%	34.30%	1
Im3	14.60%	13.50%	13.30%	2
XL	11.50%	10.70%	11.70%	3
Three	11.20%	9.80%	10.60%	4
Kartu As	11.10%	8.80%	8.80%	5

Source: <https://www.topbrand-award.com/>

Based on table 1 the strength of the simpati brand in the last 3 years ranks first with a fairly high percentage. Followed by Im3 in second place. XL itself is ranked third in the Top Brand Index of Telecommunications Mobile Operators, Tri is ranked fourth in the Top Brand Index of Telecommunications Mobile Operators and Kartu As in the Top Brand Index of Telecommunications Mobile Operators.

The product of the XL cellular card itself is considered still low or not in accordance with customer expectations, less satisfying and besides that there are also those who feel less trust in the brand image of XL. Due to these things, many customers ultimately decide to stop using XL cellular cards and choose to use products from IM3 and Simpati providers. To make consumers loyal to the company, good product quality is needed so that consumers do not feel disappointed and in accordance with their expectations, in this case XL offers several product choices that can be tailored to consumer needs. The XL sales data at PT Prima Lintas Nusantara as XL distributor in 2021 in Bogor, as follows :

**Table 2 Revenue Data of PT Prima Lintas Nusantara XL in Bogor in 2021**

No	Month	Income		Target Achievement Rate (%)	Information
		Target (Rp)	Realization (Rp)		
1	January	4.000.000.000	3.298.510.000	82	Not achieved
2	February	4.000.000.000	3.192.435.000	80	Not achieved
3	March	4.000.000.000	3.192.435.000	90	Not achieved
4	April	4.000.000.000	4.146.230.000	104	Achieved
5	May	4.000.000.000	4.045.310.000	101	Achieved
6	June	4.000.000.000	3.433.605.000	86	Not achieved
7	July	4.000.000.000	2.997.245.000	75	Not achieved
8	August	4.000.000.000	3.438.565.000	86	Not achieved
9	September	4.000.000.000	3.397.610.000	84	Not achieved
10	October	4.000.000.000	2.899.640.000	72	Not achieved
11	November	4.000.000.000	3.563.220.000	89	Not achieved
12	December	4.000.000.000	4.003.370.000	100	Achieved
<b>Average</b>		4.000.000.000	3.500.459.583	<b>87</b>	<b>Not achieved</b>

Source : PT. Prima Lintas Nusantara, 2022

Based on table 2 The non-achievement of this revenue target based on the results of an interview with one of the employees of PT Prima Lintas Nusantara is caused by many factors including the choice of other operators such as Axis, Simpati, Three, Im3, and Smartfreen, and also decreased revenue due to customer loyalty, product quality and brand image that has not been maximized.

To find out consumer assessments of the XL cellular network brand image in Bogor, a preliminary survey was conducted with 30 consumers who have used the XL cellular network in Bogor. The results are customer loyalty produces a value of 47.7% which assesses that customer loyalty is still low, brand image produces 55.8% which assesses that brand image is still low, and product quality produces 66.1% which assesses that XL product quality is still low.

Based on the background above, it shows that the low loyalty of XL network customers is thought to be caused by a brand image that is still not good and the low quality of XI cellular network products. Therefore, researchers are interested in taking the title of this research on "**The Effect of Product Quality and Brand Image on XL Mobile Network Customer Loyalty (Case Study on XL Consumers in Bogor)**".

## II. METHODOLOGY

The object in this study consists of independent variables, namely brand image (X1) and product quality (X2), and dependent variables, namely customer loyalty (Y). The subjects of this research are XL cellular network users in Bogor, the location of this research is the Bogor area, namely Central Bogor, West Bogor, East Bogor, South Bogor, North Bogor and Tanah Sareal. The reason for choosing this research object is because the XL cellular network is still not optimal in providing consumers with a good brand image and product quality. Because the population of XL cellular network consumers is unknown, the formula needed to determine the number of samples according to Rendy & Davie (2013), can use the Lemeshow formula and produce 100 samples / correspondents.

The type of research data is quantitative. While the data source of this research comes from primary and secondary data. In this research, primary data is in the form of processed questionnaire results, while secondary data is obtained from reading literature, books, journals, data from the internet and theses related to research topics.

### Validity Test, Reliability Test, Classic Assumption Test

1. According to Sugiyono (2017) the validity test shows the accuracy between the data that actually occurs on the object and the data that has been collected by the researcher.  
The results of the validity test for brand image items have a calculated  $r$  value  $>0,194$  with the highest value 0,693 and the lowest value being 0,332 so that the brand image item is declared valid. The product quality validity test results have a calculated  $r$  value  $\geq 0,194$  with the highest value being 0.536 and the lowest value being 0.268 so that the product quality is declared valid. The validity test results of purchasing decision items have a calculated  $r$  value  $\geq 0,194$  with the highest value of 0.567 and the lowest value of 0.317 so that the customer loyalty is declared valid.
2. The reliability test is that the brand image variable is measured with 8 statement items, the product quality variable is measured with 17 statement items, and the customer loyalty variable is measured with 8 statement items. To see the statistical results of variables X and Y, it was obtained from the results of data processing with 33 questionnaires that each variable had a Cronbach alpha value above 0.6. This shows that each variable X and Y can be declared to have acceptable reliability.
3. The normality test in this research was carried out using the Skewness dan Kurtosis, to determine the shape of the data distribution, it can be done with distribution charts and statistical analysis. Testing

with distribution is done by looking at a histogram graph comparing two observations with a distribution that is close to normal distribution.

The Skewness Statistic X1 value of 0.467 with a Standard Error of 0.241 gets the result of 1.935, the Skewness Statistic X2 value of 0.224 with a Standard Error of 0.241 gets the result of 0.927, and for the Kurtosis value X1 statistics 0.413 with a standard error of 0.478 gets the result of 0.864, the Kurtosis value X2 statistics -0.242 with a standard error of 0.478 results -0.506. How to calculate whether the data is normal or not by dividing the Statistics by the Standard Error of each variable both Skewness and Kurtosis. The results show that the X1 X2 variables, both Skewness and Kurtosis are between -2 to +2, thus it can be concluded that the data is normally distributed.

**a. Multicollinearity Test**

The limits used to indicate the presence of multicollinearity are tolerance value  $> 0.10$  and VIF  $< 10$ . Brand Image variable (X1) obtained a tolerance value of 0.914 and a VIF value of 1.094; Product Quality variable (X2) obtained a tolerance value of 0.914 and a VIF value of 1.094. Brand Image Variable (X1), Product Quality (X2). Obtaining a Tolerance value greater than 0.10 and obtaining a VIF value below 10, there is no multicollinearity.

**b. Heteroscedasticity Test**

All variables X1 (Brand Image) have a significance value of 0.600 greater than 0.05 or above 5%, variable X2 (Product Quality) has a significance value of 0.203 greater than 0.05 or above 5%, thus it can be concluded that there is no Heterokedastitas or Homoscedasticity.

In this research, a Likert scale was used. Based on the number of alternative answer criteria, the interval class length is obtained as follows:

$$I = \frac{5-1}{5} = 0,8$$

Based on the results of calculating the length of the class interval, the assessment criteria in Table 2 are obtained as follows:

**Table 3 Susceptible Class Intervals and Interpretation Values**

Interval Class	Average value	Interpretation		
		Brand Image	Quality Product	Customer Loyalty
I	1.00 – 1.80	Very Not Good	Very Not good	Very low
II	1.81 – 2.60	Not good	Not good	Low
III	2.61 – 3.40	Pretty good	Pretty good	Enough
IV	3.41 – 4.20	Good	Good	high
V	4.21 – 5.00	Very good	Very good	Very high

Source: (Sugiyono, 2017)

To measure the defensive variable with two or more independent variables simultaneously in multiple regression. Multiple correlation is a number that shows the direction and strength of the relationship between two independent variables together or more with one independent variable, (Sugiono, 2016). You will get an r value between -1, 0 and 1. This notation uses the correlation or relationship between the variables tested in the research.

If  $r = 0$  or close to 0, then there is no relationship between the two variables or it can also be concluded that the relationship between the two variables is very weak. If  $r = 1$  or close to 1, then the relationship between the two variables is unidirectional and very strong, meaning that an increase in X values will be followed by an increase in Y values, and vice versa. If  $r = -1$  or close to -1, then the relationship between the two variables is in the opposite direction and very strong, meaning that an increase in X values will be followed by a decrease in Y values, and vice versa.

## Hypothesis Testing Results

### 1. Multiple Regression Analysis

The multiple regression equation for this study was found as follows:

$$Y = 1.891 + 0.263 X_1 + 0.322 X_2 + error$$

Based on the regression equation above, if :

- a. If Brand Image increases by 1 (one) unit, Customer Loyalty will increase by 0.263 if other variables are considered constant.
- b. If Product Quality increases by 1 (one) unit, Customer Loyalty will increase by 0.322 if other variables are considered constant.
- c.  $X_1$  (Brand Image) =  $X_2$  (Product Quality) = 0, then the value of Y (Customer Loyalty) XL Mobile Network Products is 1.891.

### 2. Correlation Coefficient and Coefficient of Determination

The coefficient of determination ( $R^2$ ) is a measure used to measure the size of the independent variable on the variance of the dependent variable, with  $0 < R^2 < 1$ . Meanwhile, the simple correlation coefficient ( $r$ ) is the root of the coefficient of determination.

The results of the summary model output can explain that the relationship or multiple correlation between all variables (Brand Image and Product Quality towards XL cellular network customer loyalty), has a strong relationship strength. This can be seen based on the multiple correlation coefficient value of 0.716. The acquisition of the R-Square coefficient of determination of 0.682 can be explained that the Brand Image and Product Quality variables on customer loyalty for XL cellular network products are able to influence or explain diversity (variability). The value of the Purchase Decision is 68.2%, while the remaining ( $100\% - 68.2\% = 31.8\%$ ) is influenced outside the model or explained by other variables not examined.

### 3. F Test (Simultaneous Test)

#### a. Hypothesis formulation

- 1)  $H_0 : \beta_i \leq 0$ ; There is no simultaneous positive and significant effect of brand image and product quality on XL cellular network customer loyalty in Bogor.
- 2)  $H_a : \beta_i > 0$ ; There is a simultaneous positive and significant effect of brand image and product quality on XL cellular network customer loyalty in Bogor.

#### b. F Test Decision Criteria

- 1) For brand image, if the tcount is smaller or equal to the ttable ( $t_{count} \leq t_{table}$ ) at  $\alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, meaning that brand image has no effect on XL mobile network customer loyalty in Bogor. Meanwhile, if the tcount is greater than the ttable ( $t_{count} > t_{table}$ ) at  $\alpha = 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted, meaning that brand image affects the loyalty of XL cellular network customers in Bogor.
- 2) For product quality, if tcount is smaller or equal to ttable ( $t_{count} \leq t_{table}$ ) at  $\alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, product quality has no effect on XL cellular network customer loyalty in Bogor. Meanwhile, if the tcount is greater than the ttable ( $t_{count} > t_{table}$ ) at  $\alpha = 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted, meaning that product quality has an effect on XL cellular network customer loyalty in Bogor.

### 4. t Test (Partial Test)

#### a. Hypothesis Formulation

Variable  $X_1$  against Y:

- 1)  $H_{01} : \beta_1 \leq 0$ ; Brand Image has no positive and significant effect on XL mobile network customer loyalty in Bogor.

- 2)  $H_{a1}: \beta_1 > 0$ ; Brand Image has a positive and significant influence on customer loyalty of XL cellular network in Bogor.

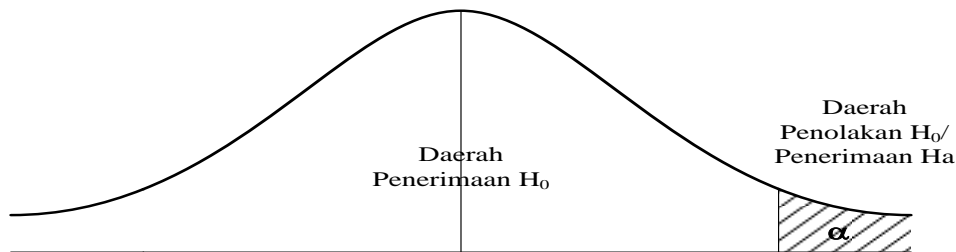
Variable X2 against Y:

- 1)  $H_{02}: \beta_2 \leq 0$ ; Product Quality has no positive and significant effect on XL cellular network customer loyalty in Bogor.
- 2)  $H_{a2}: \beta_2 > 0$ ; Product Quality has a positive and significant influence on XL cellular network customer loyalty in Bogor.

b. T test formulation criteria

- 1) For brand image, if the tcount is smaller or equal to the ttable ( $t_{count} \leq t_{table}$ ) at  $\alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, meaning that brand image does not affect the loyalty of XL cellular network customers in Bogor. Meanwhile, if the tcount is greater than the ttable ( $t_{count} > t_{table}$ ) at  $\alpha = 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted, meaning that brand image affects the loyalty of XL cellular network customers in Bogor.
- 2) For product quality, if tcount is smaller or equal to ttable ( $t_{count} \leq t_{table}$ ) at  $\alpha = 0.05$ , then  $H_0$  is accepted and  $H_a$  is rejected, meaning that product quality has no effect on XL mobile network customer loyalty in Bogor. Meanwhile, if the tcount is greater than the ttable ( $t_{count} > t_{table}$ ) at  $\alpha = 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted, meaning that product quality has an effect on XL cellular network customer loyalty in Bogor.

The one party test can be seen in the following picture:



**Figure 1 One Party Test**

Source : (Sugiono, 2017)

Figure 1 explains that in this study for hypothesis testing using a one-party test, namely the right party, so that there are brand image and product quality variables. This hypothesis testing uses the right party test method because it has been proven by previous researchers its influence so that hypothesis testing aims to test how much influence the independent variable has on the dependent variable.

### III. RESULTS AND DISCUSSION

PT XL Axiata Tbk (formerly PT Excelcomindo Pratama Tbk), or XL for short, is a mobile telecommunications operator company in Indonesia. XL began commercial operations on October 8, 1996, and was the first private company to provide mobile phone services in Indonesia. XL has two GSM product lines, namely XL Prepaid and XL Postpaid. In addition, XL also provides corporate services that include Internet Service Provider (ISP) and VoIP. The head office of PT XL Axiata Tbk is located at Menara Prima, Jl. Dr. Ide Anak Agung Gde Agung, Megakuningan South Jakarta 12950 and has 5 branch offices or regions (West, East, Central, North and Jabo).

### **Consumer Responses to Brand Image, Quality Product and Customer Loyalty**

The recapitulation results of the Brand Image variable can be seen that the average score for the Brand Image variable is 3.41, meaning that the Brand Image provided by XL is in accordance with what customers expect, be it Recognition, Reputation, Attractiveness and Brand Loyalty. But there are some customers who do not receive a reputation from XL. Recognition is the indicator with the highest value (3.48), because XL has a good introduction. XL always recognizes the products it has to its customers by making introductions through social media, electronics, print and others. So that XL customers know XL and the products it offers. Meanwhile, the lowest value is in Reputation (3.36) The reputation given by XL is included in the interpretation of good enough, because the handling of complaints provided by XL has not been maximized so that the results obtained are only good enough. This can be used as an evaluation by the company so that the company can improve its reputation even better.

The results of the recapitulation of the Product Quality Variable can be seen that the average score for the Product Quality variable is 3.36, meaning that the product quality provided by XL is quite in accordance with what customers expect, be it Performance, Aesthetics, Ease of Maintenance, Privileges, Reliability, Quality Conformity and Appropriate Usability. But there are some Respondents who do not accept the performance of XL. Aesthetics is the indicator with the highest value (3.60), XL always provides the latest innovations in packaging and in the form of sim card nyam, where XL always presents the latest packaging that is more aesthetic and keeps up with the times and makes sim card shapes that adjust to the development of current gadgets in order to increase customer interest in using XL and not choosing to use other cellular providers. while for the lowest value is in Performance (3.13), XL always tries to provide comfort when communicating with stable network speeds and stable 4G networks so that XL rarely experiences network interruptions during its use and customers are comfortable with the performance provided by XL. However, it often experiences interruptions caused by factors such as weather or areas that have not been reached by XL connections. So that the performance of XL products is included in the criteria quite well. This can be used as an evaluation by the company so that the company can improve even better performance for XL products.

The recapitulation of the Customer Loyalty variable shows that the average score for the Customer Loyalty variable is 3.45, meaning that the Customer Loyalty given by the Bogor city community to XL is good in accordance with what the company hopes for, be it loyalty to product purchases, resistance to negative influences on the company, referring to the total existence of the company. But there are some Respondents who do not accept the total existence of the XL company. Loyalty to Product Purchases is the indicator with the highest value (3.56), XL always gives bonuses every month to XL customers by providing free quota, telephone and sms and XL also has better internet speeds than other providers so that customers continue to use XL. So that loyalty to product purchases falls into the Good criteria. while for the lowest value there is on Referring to the total existence of the company (3.27) With the many advantages and privileges offered by XL, many of its customers tell about XL products to relatives, relatives, and others and refer to using XL because XL has many advantages compared to other providers. However, there are still those who will not refer to the total existence of the company. This can be used as an evaluation by the company so that the company can improve customer loyalty even better.

The form of the equation is calculated using multiple linear regression analysis. The following results of calculating the form of functional relationships using multiple linear regression analysis are obtained in Table 4 below:

**Table 4 Formation of Regression Equation**

Model	Coefficients <sup>a</sup>		Beta	T	Sig.
	Unstandardized Coefficients	Standardized Coefficients			
1					
	(Constant)	1,891	0,569	5,100	0,000
	Brand Image	0,263	0,071	0,011	2,711
	Quality Product	0,322	0,086	0,372	3,808

a. Dependent Variable: Customer Loyalty

Source : Research Result, 2023 (SPSS Data Processing)

Based on table 4, the multiple regression equation for this research can be found as follows:

$$Y^{\wedge} = 1.891 + 0.263 X_1 + 0.322 X_2 + \text{error}$$

Based on the regression equation above, if :

- Constant 1.891 is positive, meaning that if the brand image and product quality do not change, then it is estimated that customer loyalty is positive.
- Brand Image Regression Coefficient of 0.263 is positive, meaning that if the brand image is increased, it is estimated that it will increase customer loyalty, with the assumption that other variables that influence it remain.
- The Product Quality Regression Coefficient of 0.322 is positive, meaning that if the Product Quality is increased, it is expected to increase customer loyalty, with the assumption that other variables that influence it remain.

From the regression equation, it is known that the Brand Image and Product Quality variables are positive, thus indicating that the higher the value of the variables, the higher the Customer Loyalty will be.

The results of multiple correlation analysis are as follows:

**Table 5 Multiple Correlation Coefficient Analysis Results**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,816 <sup>a</sup>	0,682	0,677	1,599

a. Predictors: (Constant), Citra Merek, Kualitas Produk

Source: Research Results, 2023 (SPSS Data Processing)

Based on Table 5, the R value is 0.816. According to Sugiyono (2017) that the correlation interval value of 0.816 is included in the very strong and positive category (0.80-1.00), so that between Brand Image, and Product Quality to Customer Loyalty has a very strong relationship. This means that the better the Brand Image, and the Quality of the Product, it is suspected that it will also increase Customer Loyalty.

the R Square value is 0.682 or 68.2%. This shows that the percentage of the contribution of the influence of all independent variables, namely Brand Image and Product Quality, on the dependent variable, namely Customer Loyalty, is 68.2%. While the remaining 31.8% is influenced by other factors that are not included in this study or are influenced outside the model or explained by other variables not examined, such as service quality variables and prices have a positive and significant effect on customer loyalty according to Orel & Kara (2014), perceived price and sales promotion have a positive and significant effect



on customer loyalty according to Montolalu (2013), perceived quality has a positive and significant effect on customer loyalty according to Kotler and Keller (2016).

### Simultaneous Regression Coefficient Testing (f-Test)

To determine whether all independent variables together can affect the dependent variable. This test is conducted to show whether all X variables including Brand Image and Product Quality affect customer loyalty for XL Mobile network products. This F test uses the following statistical hypothesis:

- $H_0 : \beta_i \leq 0$ : Brand Image and Product Quality variables simultaneously have no positive and significant effect on XL Mobile Network Product Customer Loyalty.
- $H_a : \beta_i > 0$ : Brand Image and Product Quality variables simultaneously have a positive and significant effect on XL Mobile Network Product Customer Loyalty.

**Table 6 F Test (Simultaneous)**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	69,108	2	34,554	8,805	,000 <sup>b</sup>
	Residual	380,682	97	3,925		
	Total	449,790	99			

a. Dependent Variable: Customer Loyalty

b. Predictors: (Constant), Brand Image, Product Quality

Source: Research Results, 2023 (SPSS Data Processing)

Based on table 6, the effect between Brand Image and Product Quality on Customer loyalty is obtained f-count 8.805 and greater than the f-table ( $F = (k; n-k) (2; 98, \alpha = 5\%) = 2.70$ ); and supported by a significance value of 0.000 and smaller than ( $\alpha = 5\%$ ) = 0.05, thus  $H_0$  is rejected and  $H_1$  is accepted, Brand Image and Product Quality there is a positive and significant influence on Customer loyalty, then hypothesis 1 is accepted.

The results of this research are in accordance with previous research conducted by Sutra (2021) where brand image and product quality have a positive effect on consumer loyalty. As for other research results, according to Yuliza (2017), brand image and product quality have a positive effect on customer loyalty. Therefore, brand image and product quality greatly influence customer loyalty.

### Partial Regression Model Testing (t-Test)

The t test is carried out by comparing the tcount and ttable greater than the ttable ( $t_{count} > t_{table}$ ), it shows that the independent variable partially affects the dependent variable. To see the Brand Image and Product Quality variables on Customer Loyalty, it can be seen in the partial regression test in the following results:

**Table 7 T Test (Partial)**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1,891	0,569		5,100	0,000
	Brand Image	0,263	0,071	0,011	2,711	0,000
	Product Quality	0,322	0,086	0,372	3,808	0,000

a. Dependent Variable: Customer Loyalty

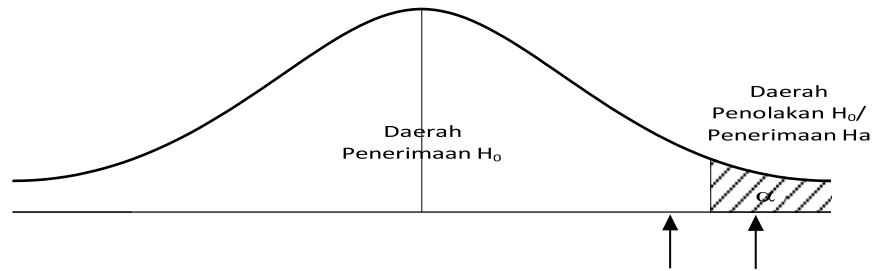
Source: Research Results, 2023 (SPSS Data Processing)

Based on table 7, it can be seen the tcount value and the significance value of each independent variable. While the ttable value for  $\alpha = 0.05$  with degrees of freedom ( $n-k-1$ )  $100-3-1 = 97$  is 1.984. Thus the following results are obtained:

### 1. The Effect of Brand Image on Customer Loyalty

To see whether or not there is an effect of Brand Image on Customer Loyalty, the hypothesis will be statistically tested as follows:

- a.  $H_0 : \beta_i \leq 0$  : Brand Image has no positive and significant effect on Customer Loyalty



- b.  $H_a : \beta_i > 0$  : Brand Image has a positive and significant effect on Customer Loyalty.

$$t_{\text{table}} = 1,984 \quad t_{\text{count}} = 2,711$$

**Figure 2 Results of the t test of the Brand Image Variable Regression Coefficient**

Source: Research Results, 2023

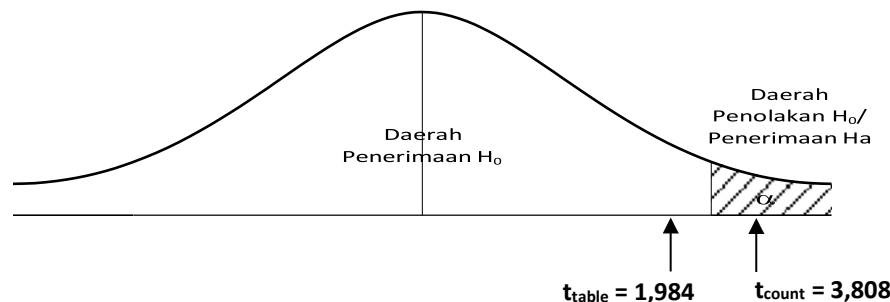
Brand Image with a  $t_{\text{count}}$  of 2.711 is greater than the  $t_{\text{table}}$  ( $2.711 > 1.984$ ) and a significant value of 0.000 is less than 0.05 ( $0.000 < 0.05$ ). Thus,  $H_a$  is accepted and  $H_0$  is rejected, meaning that Brand Image has a positive and significant effect on Customer Loyalty.

Brand Image has an influence positive and significant towards Customer Loyalty. The results of this research are in accordance with Manulang's (2018) research results showing that brand image has a positive and significant effect on customer loyalty. And research by Chrisandi (2014) shows that brand image has a significant effect on customer loyalty.

### 2. Effect of Product Quality on Customer Loyalty

To see whether or not there is an effect of Product Quality on Customer Loyalty, the hypothesis will be statistically tested as follows:

- a.  $H_0 : \beta_i \leq 0$  : Product Quality has no positive and significant effect on Customer Loyalty  
 b.  $H_a : \beta_i > 0$  : Product Quality has a positive and significant effect on Customer Loyalty.



**Figure 3 Results of the t test of the Quality Product Variable Regression Coefficient**

Source: Research Results, 2023

Product Quality  $t_{\text{count}}$  of 3.808 is greater than  $t_{\text{table}}$  ( $3.808 > 1.984$ ) and a significant value of 0.000 is smaller than 0.05 ( $0.000 < 0.05$ ). Thus,  $H_a$  is accepted and  $H_0$  is rejected, meaning that Product Quality has a positive and significant effect on Customer Loyalty.

The results of this research are in accordance with research by Cardia, Santika and Respati (2019), the research results show that there is a positive and significant influence of product quality on customer loyalty. As well as Budiastari's (2012) research results show that there is a positive and significant influence of product quality on customer loyalty, meaning that consumers consider product quality to be an important aspect to consider in the customer loyalty process.

Based on the results of testing the Brand Image and Product Quality variables partially, the partial test recapitulation is as follows:

**Table 8 Recapitulation of Partial Tests**

No	Variabel	tcount	ttable	Results	Decision	Conclusion
1	Brand Image	2,711	1,984	tcount>ttable	Ha2 accepted	Positive and Significant Brand Image on Customer Loyalty
2	Quality Product	3,808	1,984	tcount>ttable	Ha3 accepted	Product Quality Has a Positive and Significant Effect on Customer Loyalty

Source: Secondary Data processed, 2023

Based on Table 8 Brand Image and Product Quality have a positive and significant effect on Customer Loyalty. This is indicated by the tcount value of each variable greater than the ttable value. The Product Quality variable is the most dominant variable compared to Brand Image. This is because the Product Quality variable has a larger tcount and is supported by a small significant probability value. The dominant influence of the independent variable on the dependent variable, the regression coefficient and the Coefficient significant test where the highest value is Product Quality of 0.322 means that the better the Product Quality, the better the Customer Loyalty. This is evident from the results of the study showing that partially Product Quality has a positive and significant effect.

#### IV. CONCLUSIONS AND NEWNESS

##### Conclusions

Based on the research that has been conducted on Brand Image and Product Quality on Customer Loyalty of XL network products, it is concluded as follows:

1. Respondents' responses to XL Brand Image and Product Quality are as follows:
  - a. Respondents' responses to Brand Image are in the Good category. Brand Loyalty is the indicator with the highest value, while the lowest value is in Reputation.
  - b. Respondents' responses to Product Quality are in the Good Enough category. Speciality is the indicator with the highest value, while the lowest value is in Performance.
  - c. Respondents' Responses to Customer Loyalty are in the High category. Loyalty to Product Purchases is the indicator with the highest value, while the lowest value is in Referring to the total existence of the Company.
2. Simultaneous test results, Brand Image, and Product Quality have a positive and significant effect on Customer Loyalty.
3. Partial test results:
  - a. Brand Image Has a Positive and Significant Effect on Customer Loyalty of XL Mobile Network Products
  - b. Product Quality Has a Positive and Significant Effect on Customer Loyalty for XL Mobile Network Products.

## Suggestions

Based on the research results and conclusions obtained, there are several things to consider. The author proposes the following suggestions:

1. In the Brand Image variable, the statement item with the lowest value is the Performance indicator. This can be used as an evaluation by the company so that the company can improve the performance of XL, such as speeding up the network and improving the signal so as not to hinder the performance of the XL network.
2. In the Product Quality variable, the statement item with the highest value is the Privilege indicator. This can be used as an evaluation by the company because it will have a good impact on customer loyalty, by adding back various privileges that are only owned by XL itself.
3. In the Customer Loyalty variable, the statement item with the lowest value is the indicator of Referring in total to the company's existence. This can be used as an evaluation by the company so that it can encourage customers to be able to refer more products from XL and convince its customers even better.
4. This study the Brand Image and Product Quality variables influence the Customer Loyalty variable by 68.2%. While the remaining 31.8% is influenced by other factors not included in this study or influenced outside the model or explained by other variables not examined, such as service quality variables and prices have a positive and significant effect on customer loyalty according to Orel & Kara (2014), perceived price and sales promotion have a positive and significant effect on customer loyalty according to Montolalu (2013), perceived quality has a positive and significant effect on customer loyalty according to Kotler and Keller (2016).

## V. REFERENCES

- Abubakar, Rushdi. 2018. *Marketing Management* . Bandung. Alfabet.
- Afandi, P. 2018. *Human Resource Management (Theory, Concepts and Indicator)*. Riau: Zanafa Publishing.
- Ali, Hasan. 2018. *The Influence of Brand Image, Product Quality and Price on Intention to Buy Clothes* . Indonesian Indovisi Institute, 1(III), 83–104.
- Al-Salamin, H and Al-Hassan, E. 2016. *The Impact of Pricing on Consumer Behavior*. Saudi Arabia.
- Anang, Firmansyah. 2019. *Product and brand marketing* , first printing, Qiara Media publisher, East Java.
- Andani, M. & Lisa Utami. 2019. *The Effect of Implementing the 7E Learning Cycle Learning Model on Students' Science Process Skills in Colloid Material at SMA Negeri 10 Pekanbaru*. Journal of Natural Science and Integration.
- Assauri, S. 2018. *Marketing Management (Basics, Concepts & Strategies)* . Depok: PT Raja Grafindo Persada.
- Budiastri, Sita. 2018. *The Influence of Product Quality, Price Perception, and Brand Image on Customer Satisfaction and Loyalty of Holcim Ready-Mix Concrete in Jakarta*. Jakarta. Journal of Management and Business Dynamics .
- Cardia, DINR, Santika, IW, & Respati, NNR 2019. *The Influence of Product Quality, Price, and Promotion on Customer Loyalty* . Udayana University Management E-Journal.

- Chandra, Wahyu, Pradana. 2017, *The influence of promotion, quality, price and brand image on consumer satisfaction with AQUA products* . thesis at the Faculty of Economics, Sanata Dharma University.
- Chrisandi, Nurina, Prisilia. 2014. *The Relationship between Brand Image and Customer Quality and Customer Loyalty for Apple Products*. Surabaya. University of Surabaya Student Scientific Journal Vol.3 No.1.
- Dharma, Robby. 2017. *The Influence of Service Quality, Trust and Satisfaction on Customer Loyalty at PT. Padang Tour Padang Island Tour*. EKOBISTEK Journal, Faculty of Economics .
- Donni June Priansa. 2017. *Integrated Marketing Communications in the Era of Social Media* . Bandung. CV Pustaka Setia.
- Donni Priansa. 2017. *Service Management*. Prime. Bandung
- Fandy Tjiptono, and Gregorius Chandra. 2017. *Services Marketing* . Banyumedia Publishing. Ikapi East Java.
- Fandy, Tjiptono. 2016. *Service, Quality & satisfaction* . Yogyakarta. Andy.
- Griffin, J. 2016. *Customer Loyalty, Growing and Maintaining Customer Loyalty* . Jakarta. Translated by Dwi Kartini Yahya. Erlangga.
- Hasibuan, Malayu. 2016. *Human Resource Management*. Jakarta: Bumi Aksara Publishers.
- Kinasih Airindah Nitis , Djawoto .2021. *The Influence of Service Quality, Promotion and Interior Product Quality on Customer Loyalty*. Surabaya. Journal of management science and research.
- Kotler, Philip and Gary Armstrong. 2018. *Principles of Marketing. Edition 15* Global Edition. Pearson.
- Kotler, Philip and Keller, Kevin Lane. 2018. *Marketing Management. Edition 12*. Volume 2. Jakarta: PT Index.
- Lestari, Annisa Dyah. Syarif, Rinaldi. 2021. *The Influence of Green Marketing, Brand Image, and Product Quality on Kentucky Fried Chicken Customer Loyalty (Case Study of KFC Buaran Plaza)* . Jakarta. IKRAITH-ECONOMICS No 3 Vol 4 November 2021 .
- Putra, Made, Caesar, Surya, Dwi. Ekawati, Ni Wayan. 2017. *The Influence of Product Innovation, Price, Brand Image and Service Quality on Vespa Motorcycle Customer Loyalty*. Surabaya. Udayana University Management E-Journal .
- Ratih, Hurriyati. 2015. *Marketing Mix and Consumer Loyalty* . Bandung.
- Robbins, Stephen P. and Mary Coulter. 2016. *Management, Volume 1 Edition 13, Translation* : Bob Sabran and Devri Bardani P, Erlangga, Jakarta.
- Rochaety, E., Tresnati, R., & Latief, AM 2019. *Business Research Methodology: With SPSS Applications* . Bogor: Mitra Discourse Media.
- Sugiyono. 2017. *Quantitative, Qualitative, R & D Research Methods* . Bandung: CV Alfabeta.

- Sugiyono. 2018. *Combination Research Methods (Mixed Methods)*. Bandung: CV Alfabeta.
- Sugiyono. 2018. *Quantitative Research Methods* . Bandung: Alphabeta.
- Sujarweni, V. Wiratna. 2015. *Business and Economic Research Methodology, 33* . Yogyakarta: Pustaka Baru Press.
- Sutra, Ana. 2021. *The Influence of Brand Image, Price and Product Quality on Consumer Loyalty among Telkomsel Card Users (Study on Students of the Faculty of Economics and Business, Muhamadiyah University of Bengkulu)*. Bengkulu. Scientific Journal of the Faculty of Economics, UMB.
- Private, Handoko. 2016. Marketing Mix.
- Swastha, Basu. 2012. *Marketing Channels* . First Edition, BPFE, Yogyakarta.
- Wibowo. 2019. *Human Resources Management*. Jakarta : Bumi Aksara
- Wijaya, Tony. 2018, *Service Quality Management* , Second Edition, Jakarta: PT.Indeks.
- Yuliza, Mai. 2017. *The Influence of Brand Image, Product Quality and Product Innovation on Consumer Loyalty of Avanza Cars in West Pasaman Regency i*. Pasaman Barati. LPPM STIE Pasaman.