



## The Influence of Product Quality and Brand Image on Customer Loyalty Of XL-Axiata Users

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### ABSTRACT

The higher the use of cellular phones, the use of SIM cards will also increase because without a SIM card, cellular phones cannot be used properly because the telecommunications equipment is basically functioned by SIM cards. One of the most popular prepaid SIM cards in Indonesia is XL-Axiata. This study aims to determine the effect of product quality and brand image on consumer loyalty behavior. This type of research uses quantitative methods with a sample size of 104 respondents. The sampling technique in this study used purposive sampling technique. The data collection technique in this study used a questionnaire. The results showed that the product quality variable had a positive and significant effect on customer loyalty; brand image had a positive and significant effect on customer loyalty; product quality and brand image simultaneously had a positive and significant effect on customer loyalty; Similarly, the Adjusted R Square value in this study obtained a value of 0.272, meaning that the product quality and brand image variables had an influence of 27.2% on customer loyalty.

**Keywords:** Product Quality, Brand Image, Customer Loyalty.

### 1. Introduction

One of the most popular prepaid SIM cards in Indonesia is XL-Axiata. XL-Axiata is one of the top five most widely used sim cards in Indonesia. According to the annual report of PT XL Axiata Tbk. in 2022 there were 57.5 million people who used XL-Axiata in Indonesia. Based on this data, it shows that XL-Axiata has a large market share in Indonesia. Evidently in 2019 XL-Axiata was ranked third as the top brand in Indonesia, but in recent years the number of customers using XL-Axiata SIM cards has decreased.

Table 1. Percentage of XL-Axiata Users in Indonesia 2019-2023

Brand	2019	2020	2021	2022	2023
IM3	12.70	14.60	13.50	13.30	17.50
AS	9.40	11.10	8.60	8.90	7.10
SIMPATI	40.30	34.60	36.40	34.30	34.70
TRI 3	-	-	-	-	12.00
XL PRABAYAR	12.00	11.50	10.70	11.70	11.60

Source: Top Brand Award 2023

Based on Table 1. above shows that the top brand award data in 2019-2023 has decreased the number of XL-Axiata SIM card users. Although in 2022 there was an increase in the number of XL-Axiata users, in 2023 it decreased again from the initial 11.70% to 11.60%. When compared between 2019 and 2023 the number of XL-Axiata users decreased by 3.3%.

Table 2. XL-Axiata Customer Growth Table 2021-2022

Description	2022	2021	Growth 2021-2022	
Prepaid Customers	56 Milion	56.6 Milion	-0.6 Million	-1%
Postpaid Customers	1.5 Milion	1.3 Million	0.2 Million	15%
Total Customers	57.5 Milion	1.3 Million	-0.4 Million	-1%
Prepaid ARPU	37.000	35.000	2.000	6%
Postpaid ARPU	96.000	107.000	-11.000	-10%
Combined ARPU	39.000	36.000	3.000	8%

Source: Annual Report PT XL-Axiata Tbk. 2022

Based on Table 2. above shows that according to the data from the annual report of PT XL-Axiata Tbk. in 2022 between 2021 and 2022 there was a decrease in prepaid subscriber growth by 1%, which was originally 56.6 million to 56 million subscribers, this indicates that there has been a decrease in customer loyalty to XL-Axiata both in terms of service quality, product quality,

brand image and so on which has caused customers to switch to using other SIM cards. Based on limited pre-survey data by the author regarding customer loyalty at Yogyakarta State University on 30 XL-Axiata user students, it shows that the level of student loyalty at Yogyakarta State University is still below 50%, this indicates that there are still shortcomings in various factors that cause a decrease in customer loyalty to the use of XL-Axiata in Indonesia. Based on the results of the explanation above, the authors are interested in conducting further research to find out the extent to which product quality and brand image affect customer loyalty, therefore the authors are interested in conducting research with the title “The Effect of Product Quality and Brand Image on Customer Loyalty of XL-Axiata Users (Case Study on Students of Yogyakarta State University)”.

## 2. Method

This type of research uses quantitative methods. According to Sugiyono (2018) cited by Hasan (2022) states that quantitative methods can be interpreted as research methods based on the philosophy of positivism, used to research on certain populations or samples, data collection using research instruments, quantitative / statistical analysis, with the aim of describing and testing predetermined hypotheses. The population in this study were all D4 and S1 students at Yogyakarta State University with a total sample in this study of 104 respondents. The sampling method used in this study is non-probability sampling with the sampling technique, namely purposive sampling. The data collection technique in this study used a survey technique using a questionnaire with a modified Likert scale measuring instrument (even Likert scale).

## 3. Rests and Discussion

### 3.1. Results

#### 3.1.1. Normality Test

**Table 3.** Normality Test Results

<i>One-Sample Kolmogorov Smirnov Test</i>	<b>Significance</b>	<b>Description</b>
<i>Asymp. Sig. (2-tailed)</i>	0,200	Normal

*Source: Primary Data Processed 2024*

Based on Table 3. above shows that the significance value of the test that has been carried out is  $0.200 > 0.05$  so that it can be stated that the variables in this study are normally distributed, this is because in the Kolmogorov-Smirnov test, data is said to be normally distributed if it has a significance result of more than 0.05 and if the significance result is less than 0.05 then the data is said to be not normally distributed.

### 3.1.2. Linearity Test

**Table 4.** Linierity Test

Variable	Significance	Description
Product Quality	0,706	Linier
Brand Image	0,281	Linier

*Source: Primary Data Processed 2024*

Based on Table 4. above, it can be seen that the linearity test results between product quality and customer loyalty are 0.706 and brand image and customer loyalty are 0.281 When viewed from the significance value of deviation from linearity, all of them are worth more than 0.05 so it can be stated that all X variables in this study have linearity to Y.

### 3.1.3. Multicollinearity Test

**Table 5.** Multicollinearity Test

Variable	Tolerance	VIF	Description
Product Quality	0,772	1,296	Non Multicollinierity
Brand Image	0,772	1,296	Non Multicollinierity

*Source: Primary Data Processed 2024*

Based on Table 5. states that the results of this study have a tolerance value of more than 0.1 on all variables and the Variance Inflation Factor (VIF) value of all variables is less than 10, it can be concluded that in this study there is no multicollinearity.

### 3.1.2 Heteroscedasticity Test

**Table 6.** Heteroscedasticity Test

Variable	Significance	Description
Product Quality	0,413	Non Heteroscedasticity
Brand Image	0,481	Non Heteroscedasticity

*Source: Primary Data Processed 2024*

Based on Table 6. above shows that the significance value generated in the product quality and brand image variables has a value greater than 0.05 so it can be said that in this study there is no indication of heteroscedasticity.

### 3.1.3 Multiple Linear Regression Analysis

**Table 7. Multiple Linear Regression Analysis**

Variable	Regression Coefficients	Coefficients Std. Error	T	Sig.
(b)				
(Constant)	9,105	2,017	4,514	0,000
Product Quality	0,089	0,031	2,886	0,005
Brand Image	0,333	0,093	3,596	0,001

Source: Primary Data Processed 2024

Based on Table 7. above, the multiple linear equation can be arranged as follows.

$$Y = 9.105 + 0.089 X_1 + 0.333 X_2 + e$$

Description:

Y = Customer Loyalty

X<sub>1</sub> = Product Quality

X<sub>2</sub> = Brand Image

The interpretation of the regression equation above is as follows

1. The constant of 9.105 indicates that if all independent variables are constant 0, then the magnitude of Y is 9.105.
2. Product quality (X<sub>1</sub>) has a regression coefficient of 0.089, this indicates that when product quality (X<sub>1</sub>) increases by 1, customer loyalty (Y) will also increase by 0.089 other variables remain constant. The regression coefficient is positive, which means that the relationship between product quality (X<sub>1</sub>) and customer loyalty (Y) is linear so that when there is an increase in the product quality variable (X<sub>1</sub>) it will be linear with an increase in customer loyalty (Y).
3. Brand Image (X<sub>2</sub>) has a regression coefficient of 0.333, this indicates that when brand image (X<sub>2</sub>) increases by 1, customer loyalty (Y) will also increase by 0.333 other variables remain. The regression coefficient is positive, which means that the

relationship between brand image ( $X_2$ ) and customer loyalty (Y) is linear so that when there is an increase in the brand image variable ( $X_2$ ) it will be linear with an increase in customer loyalty (Y).

### 3.1.4 Hypothesis Test

#### A. T Test

**Table 8. T Test**

Variable	Coefficients	Significance	Description
Product Quality	2,886	0,005	Positive Influence
Brand Image	3,596	0,001	Positive Influence

*Source: Primary Data Processed 2024*

The t test can be seen from the results of multiple linear regression testing. If the significance value is less than 0.05 (Sig <0.05), it can be concluded that the independent variable partially affects the dependent variable. The following is an explanation of the t test for each variable, including:

#### 1. Product Quality

Based on Table 8. It can be seen that the product quality variable has a significance value of 0.005, which means it is smaller than the predetermined significance value of 0.05. When viewed from the level of significance, to determine the partial influence of each independent variable on the dependent variable, it can be seen from the magnitude of the  $t_{hitung}$  value compared to the  $t_{table}$ . In this study, the  $t_{table}$  value is 1.983, for the  $t_{count}$  value on the product quality variable is 2.886, so the hypothesis which states “Product quality ( $X_1$ ) has a positive effect on customer loyalty (Y)” can be accepted.

#### 2. Brand Image

Based on Table 8. It can be seen that the product quality variable has a significance value of 0.001, which means it is smaller than the predetermined significance value of 0.05. When viewed from the level of significance, to determine the partial influence of each independent variable on the dependent variable, it can be seen from the magnitude of the  $t_{hitung}$  value compared to the  $t_{table}$ . In this study, the  $t_{table}$  value is 1.983, for the  $t_{count}$  value on the Brand Image variable is 3.596, so the hypothesis that states “Brand Image ( $X_2$ ) has a positive effect on customer loyalty (Y)” can be accepted.

## B. F Test

**Table 9.** F Test

Model	F	Significance	Description
Regresi	20,209	0,000	Simultaneous Effect

Source: Primary Data Processed 2024

Based on Table 9. above shows that the results of the calculations that have been carried out have a significance value of  $0.000 < 0.05$  so this shows that product quality and brand image have a significant effect simultaneously on customer loyalty. In line with these results, the calculation of the  $F_{\text{count}}$  value shows a value greater than the  $F_{\text{table}}$  where  $20.209 > 3.93$  so this strengthens the conclusion that all independent variables in this study are proven to affect the dependent variable together.

## C. Coefficient of Determination ( $R^2$ )

**Table 10.** Coefficient of Determination ( $R^2$ )

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0,535	0,286	0,272	1,366

Source: Primary Data Processed 2024

Based on Table 10. shows that the coefficient of determination ( $R^2$ ) value is shown in the Adjusted R Square value of 0.272 or 27.2%. This figure means that in the regression equation mode of this study, customer loyalty as the dependent variable is able to be proxied by product quality and brand image as the independent variable by 27.2%, while the remaining 72.8 is influenced by other factors that are not included in the research regression model this time.

## 4. Discussion

4.1. Based on Table 10. shows that the coefficient of determination ( $R^2$ ) value is shown in the Adjusted R Square value of 0.272 or 27.2%. This figure means that in the regression equation mode of this study, customer loyalty as the dependent variable is able to be proxied by product quality and brand image as the independent variable by 27.2%, while the remaining 72.8 is influenced by other factors that are not included in the research regression model this time.

### 4.1.1. The Effect of Product Quality on Customer Loyalty

The hypothesis that product quality has a positive effect on loyalty in this study is accepted, this is based on the results of the t test which shows significance below the error value. It is evident from the positive regression coefficient value of 0.089 with a t-count of 2.886 and a significance level of 0.005 less than 0.05 ( $\text{Sig} < 0.05$ ), so it is stated to have a positive and significant effect.

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

The hypothesis that brand image has a positive effect on loyalty in this study is accepted, this is based on the t test results which show significance below the error value. Evidenced by the positive regression coefficient value of 0.333 with a t-count of 3.596 and a significance level of 0.001 less than 0.05 (Sig <0.05), it is stated that it has a positive and significant effect.

#### 4.1.3. The effect of product quality and brand image on customer loyalty

The hypothesis that product quality and brand image have a positive effect on loyalty in this study is accepted, this can be proved by the results of the F-test which shows that the significance value of 0.000 <0.05 so this shows that product quality and brand image have a significant effect on customer loyalty concurrently. In line with these results, the calculation of the F-count value shows a value greater than the F-table where 20.209>

3.93 so this strengthens the conclusion that all independent variables in this study are proven to affect the dependent variable together (concurrently).

### 5. Conclusions

Based on the results of the research and discussion, the following conclusions can be drawn.

- A. Product quality has a positive and significant effect on customer loyalty of XL-Axiata users.
- B. Brand image has a positive and significant effect on customer loyalty of XL-Axiata users.
- C. Product quality and brand image simultaneously have a positive and significant effect on customer loyalty of XL-Axiata users.
- D. The magnitude of the Adjusted R Square value is 0.272 or 27.2%.

Future research can develop this research by adding variables that can affect customer loyalty such as service quality, celebrity endorsers, promotions, prices, customer satisfaction and so on. The sampling technique in future studies can also use other methods so that it will be able to provide more in-depth results. Future research can also conduct research in a broader scope so that the research results can be generalized in a broader scope. The funders had no role in the design of the study; in the collection, analysis, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results. This research received no external funding. I would like to thank the lecturers and staff of the D-IV Marketing Management, Faculty of Vocational, Yogyakarta State University for their cooperation and kind support throughout my research period.



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