

# The Influence of Product Brand Image on Purchasing Decision on Smartfren Internet Modem: Case Study at Indo Global Mandiri University, Palembang

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## Abstract

This study aims to examine the effect of brand image on purchasing decisions for Smartfren internet modems. Data were collected through questionnaires on 95 students of the Indo Global Mandiri University class of 2018. The statistical analysis method used simple linear regression. The result of the investigation evidences that brand image has a positive and significant effect on purchasing decisions for Smartfren internet modems. Based on the result, Smartfren should increase the brand image of their internet modems to increase sales. This research was only conducted on students of the Indo Global Mandiri University. Research results may be inapplicable in other research samples.

**Keywords:** Brand Image, Purchase Decision, Consumer Behavior, Marketing

## 1. Introduction

In the current era of globalization, the industrial development in Indonesia is growing, as happened in the telecommunications industry. Now the telecommunications industry is one of the many contributors to national economic growth. The telecommunications industry in Indonesia has become the driving infrastructure for all sectors starting from the telecommunications industry itself, trade, manufacturing, to the small and medium business sector as the driving force for the people's economy. Communication technology through cellphones has developed from time to time until smartphone products are created, which are mini computers that have the capability of a telephone so that smartphones can not only function to call or send short messages, but can also process data like computers, which has e-mail, uploading, downloading, browsing, chatting, and so on.

Brand loyalty is an indicator of brand equity that is clearly related to future profits because it is directly related to the level of future sales. Brand awareness can also be raised from customer groups. The users' friends and colleagues will become aware of the product just by watching it and will evoke a kind of memory related to the context of use and users that any ad would find difficult to reach. Although Smartfren Andromax is quite attractive to consumers, when compared to Samsung and Sony, Smartfren is still less superior in terms of branding, it is evident that consumers know Samsung and Sony better than Smartfren Andromax.

From this description, the researcher was interested in conducting research on the effect of the product brand image on purchasing decisions of Smartfren Connex Internet Modem users in Palembang. The number of SIM cards produced and recycled has exceeded 350 million copies. Meanwhile, the total population of Indonesia as of early 2014 only reached 251 million people. This fact proves that the need for communication and information is very high in Indonesia. Along with that, the internet technology industry in various fields has grown rapidly. People

are experiencing lifestyle changes that demand the internet as a basic need. The internet is a public need to obtain information easily and communicate without being limited by geographic factors. In the second quarter of 2018, the number of subscribers was 10 million, previously we set a target of up to 15 million users (until the end of 2018), but finally PT Smartfren recorded that the number of subscribers in 2018 might be reached at 12-13 million subscribers, now it's 15 million, and we expect to be 30 million by the end of 2019.

Based on the description above, by looking at the background of the problems and phenomena, the authors are interested in conducting research with the title: "The Influence of Product Brand Image on Purchasing Decisions of Smartfren Internet Modems: Case Study at Indo Global Mandiri University, Palembang.

## **2. Literature Review**

### **2.1. Definition of Marketing Management**

Marketing is a social and managerial process in which individuals and groups get what they need and want by creating, offering, and exchanging products of value to other parties. Daryanto (2011) also argues that marketing is a social and managerial process where individuals and groups get their needs and desires by creating, offering, and exchanging something of value with each other. Of course, the definition given will differ according to one expert with another. This is due to the different views of these experts regarding this marketing. Here are some definitions or definitions of marketing according to some experts:

According to Philip Kotler (Principles of Marketing -14 / E. 2012) Marketing is a social process which consists of individuals and groups to get what they need and want by creating, offering and freely exchanging products and values with other parties. According to WY. Stanton (Part On Marketing, 2012) Marketing is something that includes all systems related to the purpose of planning and determining prices to promoting and distributing goods and services that can satisfy the needs of actual and potential buyers. According to William J. Stanton (2012) Marketing is an overall system of business activities aimed at planning, pricing, promoting, and distributing goods and services that satisfy needs, both to existing and potential buyers.

### **2.2 Understanding Brand Image**

Brand image according to Supranto and Lima Krisna (2011) is what customers think or feel when they hear or see the name of a brand or in essence what customers have learned about the brand. Brand image is also called schematic brand memory, containing the target market's interpretation of product attributes or characteristics, product benefits, usage situations, and marketer's characteristics. According to Tjiptono (2014: 112), Brand Image or brand description is a description of associations and consumer beliefs in certain brands. A number of quantitative and qualitative techniques have been developed to help reveal consumer perceptions and associations of a particular brand, including multidimensional scaling, projection techniques, and so on.

### **2.3. Definition of Purchase Decision**

Understanding the buying decision To get an idea of the buying decision, the following will suggest a definition of the buying decision according to the experts. According to Kotler (2010) the buying decision is: "several stages carried out by consumers before making a product purchase decision". Purchasing decision making is the process of problem recognition (problem recognition), information search, evaluation (assessment) and selection of alternative products,

selection of distribution channels and implementation of decisions on products to be used or purchased by consumers. According to Setiadi (2010), buying behavior implies that individual activities are directly involved in exchanging money for goods and services and in the decision-making process that determines these activities. A consumer's decision to buy a product always involves physical activity (in the form of direct consumer activity through the stages of the purchase decision-making process) and mental activity (when consumers judge the product according to certain criteria set by individuals).

### 3. Research Method

The object of this research is the students of the Indo Global Mandiri Palembang University in the Year 2018 class. The object of this research is made to answer the problems that have been formulated and the objectives to be achieved. So that researchers can get answers to questions. This study uses variable X and variable Y. Variable X is the brand image while Y is the purchase decision. The population in this study were students of the Indo Global Mandiri Palembang University in the year 2018 with a total of 95 respondents. The sampling method uses the Slovin formula technique method and sample collection is used to determine the minimum number of samples.

Population According to Fauzi, Dencik and Asiati (2019) population is an area of generalization of objects / subjects that have certain qualities and characteristics that are determined by researchers to be studied and then draw conclusions. Sample is part or representative of the population under study. Meanwhile, according to Sugiyono (2014) argues that the sample is part of the number and characteristics of the population. Analysis Technique used is Simple Regression Analysis Test.

### 4. Findings and Discussions

Partial test to test the significant level of Brand Image Influence on Purchasing Decisions of Smartfren Internet Modem Users at Indo Global Mandiri University Palembang students used t test for each variable. Decision making is done by comparing the value of rcount with rtabel at a significant level of 5%. Table 4.9 shows that the calculated r value for the Brand Image variable is 3,985. In the Brand Image variable because rcount> rtabel is 3,985> 0.2017, thus the decision taken is that H1 is accepted, it means that Brand Image has a positive effect on the Purchase Decision for Smartfren Internet Modem Users at Indo Global Mandiri University Palembang.

The validity test is needed in order to obtain a valid instrument, meaning the right instrument to measure what should be measured. The validity test can be done by correlating the score of each questionnaire item with the total score. The validity of the instrument was calculated using the Pearson Product Moment (PPM) formula using the Statistical Product and Service Solutions (SPSS) version 22.00 for 95 for Windows program. This trial was conducted on respondents. The validity results can be seen in the table below.

Table 1. Brand Image Validity (X)

| Question | r value | r table | Status |
|----------|---------|---------|--------|
| X 1      | 0,749   | 0,2017  | Valid  |
| X 2      | 0,697   | 0,2017  | Valid  |
| X 3      | 0,797   | 0,2017  | Valid  |
| X 4      | 0,639   | 0,2017  | Valid  |
| X        | 1,000   | 0,2017  | Valid  |

Table 2. Validity of Purchasing Decisions (Y)

| Question | r value | r table | Status |
|----------|---------|---------|--------|
| Y 1      | 0,557   | 0,2017  | Valid  |
| Y 2      | 0,762   | 0,2017  | Valid  |
| Y 3      | 0,819   | 0,2017  | Valid  |
| Y 4      | 0,858   | 0,2017  | Valid  |
| Y 5      | 0,653   | 0,2017  | Valid  |
| Y 6      | 0,802   | 0,2017  | Valid  |
| Y        | 1,000   | 0,2017  | Valid  |

From the results of the validity test, it shows that the rcount value of each indicator of the Brand Image variable on the Purchase Decision is greater than the rtable value. Thus the indicators or questionnaires used by each selection variable and the brand image are valid as a variable measuring tool.

To find out the level of reliability of the questionnaire, the author uses the croncbach's calculation technique where the calculations use the help of a computer program called SPSS. Reliability Test Criteria for a variable contract is said to be good or reliable if it has a Croncbach's alpha value > 0.60. The following are the results of the reliability calculation for the variable questionnaire (X):

Table 3. Reliability Test Results

| Variable          | Cronbach's Alpha | Status   |
|-------------------|------------------|----------|
| Brand Image       | 0,813            | Reliabel |
| Decision Purchase | 0,797            | Reliabel |

Based on table 3, it can be seen that the Cronbach's alpha value from the brand image variable is 0.813 and the purchasing decision variable is 0.797. Both of these variables have a value greater than 0.6. This shows that the instruments of these variables are reliable.

Based on table 4. below the results of the normality test, it can be seen that the Kolmogorov-Smirnov value of the regression equation on the variable is 0.084, significant 0.05. This means that the regression model fulfills the normality assumption. From the results of the normality test, it can be concluded that the regression models in this study are suitable for use because they meet the assumption of normality.

Table 4. Kolmogorov-Smirnov test

|                                  |                | Unstandardized Residual |
|----------------------------------|----------------|-------------------------|
| N                                |                | 95                      |
| Normal Parameters <sup>a,b</sup> | Mean           | .0000000                |
|                                  | Std. Deviation | 1.39439920              |
| Most Extreme Differences         | Absolute       | .150                    |
|                                  | Positive       | .153                    |
|                                  | Negative       | -.140                   |
| Test Statistic                   |                | .150                    |
| Asymp. Sig. (2-tailed)           |                | .084 <sup>c</sup>       |

The basic concept of the Kolmogorov-Smirnov normality test is to compare the data distribution (to be tested for normality) with the standard normal distribution. If the Kolmogorov-Smirnov results show significantly below 0.05, the residual data is not normally distributed. Meanwhile, if the Kolmogorov-Smirnov results show a significant value of 0.05, the residual data is normally distributed. The normality test in linear regression is not carried out pervariable, but on residuals.

The definition of simple linear regression analysis according to Ali Muhson (2013) is carried out using the help of the SPSS version 22.0 program. This regression analysis is carried out using the enter method, where all variables are entered to find the effect of the input variables to find the effect of the independent variable on the dependent variable. The results of regression analysis using the enter method can be seen in the following table:

Table 5. Simple Linear Regression Analysis

| Model         | Unstandardized Coefficients |            | Standardized Coefficients | t     | Sig. |
|---------------|-----------------------------|------------|---------------------------|-------|------|
|               | B                           | Std. Error | Beta                      |       |      |
| 1 (Constant)  | 6.441                       | 1.737      |                           | 3.708 | .000 |
| X Brand Image | .343                        | .086       | .290                      | 3.985 | .000 |

a. Dependent Variable: Y Decision purchase

Based on the results of data processing shown in Table 5 in the Unstandardized Coefficients column part B, a simple linear regression equation model is obtained as follows:

$$Y = 6,441 + 0.343X$$

Information:

Y = Purchase Decision

a = Constant

X = Brand Image

b = Regression coefficient of the independent variable

a. The regression constant value is 6.441, indicating that the Brand Image is with a constant condition or  $X = 0$ , then the decision to purchase a Smartfren internet modem for Indo Global Mandiri University Palembang students is 6.441.

b. X (Brand Image) has a regression coefficient of 0.343, indicating that the Brand Image variable (X) has a positive effect on Purchasing Decisions (Y). This means that if the Brand Image is getting better with the assumption of other variables being constant, then this can increase the Purchase Decision of the internet smartfren modem for Indo Global Mandiri University Students Palembang.

The results of the study using the T test of the Product Brand Image variable obtained t value > t table ( $3.985 > 0.2017$ ) and a significant level  $< 0.05$  ( $0.000 < 0.05$ ). So it can be concluded that the Variable Product Brand Image (X) has a significant effect on the Decision to Purchase a Smartfren Internet Modem for Indo Global Mandiri University Students in Palembang.

The results of the study using the coefficient of determination ( $R^2$ ) obtained a value of 0.409. This shows that the contribution of the Product Brand Image Variable (X) can explain the Purchase Decision Variable (Y) by 40.9%. The remaining 59.1% can be explained / influenced by other variables which were not included in this study.

Table 6. Coefficient Determination

| Model Summary <sup>b</sup>           |                   |          |                   |                            |
|--------------------------------------|-------------------|----------|-------------------|----------------------------|
| Model                                | R                 | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1                                    | .639 <sup>a</sup> | .409     | .403              | .2526                      |
| a. Predictors: (Constant), BRAND (X) |                   |          |                   |                            |
| b. Dependent Variable: KP (Y)        |                   |          |                   |                            |

From table 6 above, it is known that the strong relationship between brand image and purchasing decisions is proven by the correlation coefficient (R) of 0.639. While the coefficient of determination R Square is 0.409 which shows that the purchase decision (Y) can be explained by a brand image of 40.9%. While the remaining 50.1% is influenced by other variables not examined in this study.

## 5. Conclusion

Based on the results of the research and discussion of the previous chapter, the following conclusions were drawn:

a. The results of the study using the T test of the Product Brand Image variable obtained t value > t table ( $3.985 > 0.2017$ ) and a significant level  $< 0.05$  ( $0.000 < 0.05$ ). So it can be concluded that the Variable Product Brand Image (X) has a significant effect on the Decision to Purchase a Smartfren Internet Modem for Indo Global Mandiri University Students in Palembang.

b. The results of the study using the Simple Linear Regression Test obtained the value of the Regression Coefficient of 0.343. This shows the magnitude of the increase in the Purchasing Decision Variable (Y) of (0.343). If the Variable Product Brand Image increases by 1 unit.

c. The results of the study using the correlation coefficient test showed a value of 0.639. It can be concluded that the relationship between the Product Brand Image Variable and the Purchase Decision Variable is "Strong" (6.399%).

d. The results of the study using the coefficient of determination ( $R^2$ ) obtained a value of 0.409. This shows that the contribution of the Product Brand Image Variable (X) can explain the Purchase Decision Variable (Y) by 40.9%. The remaining 59.1% can be explained / influenced by other variables which were not included in this study.

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