Research.

The Effect of Brand Awareness, Price, and Promotion on Purchase Decision on Smartphones

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Abstract: Smartphones have become one of the primary needs for all people. According to the Newzoo report (2021), it has been found that the largest smartphone users will be in China in 2020 with a total of 911.9 million users. Indonesia is ranked fourth, with 160.23 million users. By 2023, Newzoo predicts there will be 4.3 billion smartphone users globally. The purpose of this research is to examine several factors that can improve purchasing decisions. factors such as brand awareness, price, and promotion have an effect on purchase decisions. A questionnaire test, validity, reliability and hypothesis testing will be conducted on 150 data obtained from the initial questionnaire. From the results of this research, it was found that the independent variables simultaneously effect the purchase decision variable. Brand awareness variable has the most dominant effect on purchase decision.

Keywords: brand awareness, price, promotion, purchase decision, smartphone

INTRODUCTION

In today's digital era, accompanied by the rapid development of technology, we cannot deny that smartphones have become one of the primary needs for all people. In addition, the price factor is quite affordable for some brands, causing almost all people to have one smartphone or even more for those who are quite capable.

In addition, during the current Covid-19 pandemic, where many activities were previously not possible to use smartphones continuously, one example is teaching and learning activities at school, but now it is actually required to use smartphones as a medium to receive knowledge from teachers online. Apart from education, smartphones are also needed to support employees' work activities, for example by participating in online meetings using several online meeting applications such as Zoom, Google Meet, and so on.

Newzoo (2021) has conducted research on the largest number of smartphone users in the world and found that the largest smartphone users were in China in 2020. The number of users reached 911,900,000 users with a minimum usage frequency of once a month. In second place, there is India, with 439,400,000 smartphone users in 2020. After that, followed by the United States with 270,000,000 smartphone users with the number of smartphone penetration in the country reaching 81.6% of the entire population. Then, followed in fourth place, with 160,230,000 users, is Indonesia. In fact, the number of smartphone users in this country is only 58.6% of the entire population.

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The use of smartphones in Indonesia, in particular, has been predicted to increase continuously. In 2015, there were only 28.6% of the population in Indonesia who used the smartphone. More than half of Indonesia's population, 56.2%, used smartphones in 2018. A year later, in 2019, 63.3% of the population had used smartphones. By 2025, it has been predicted that at least 89.2% of the population in Indonesia has utilized smartphones. Within six years, from 2019 to 2025, smartphone penetration in Indonesia is predicted to increase by 25.9%.

From the two graphs above, the author can conclude that every year, there will be a significant increase in smartphone users even though in some countries, smartphone penetration is not so large. In addition, many researchers believe that smartphone users will experience a high increase every year. That can cause the research to be conducted by this author, can be useful for smartphone manufacturers or companies in winning the smartphone sales competition.

**Problem Formulation**

It has been found in several journals that there are several problems that can be identified which refer to research conducted by Indah Ria Lestari et al., (2019), Tiurida Lily Anita et al., (2019), Tjahjono Djatmiko et al., (2016), Nushrat Shabrin et al., (2017), Qausar Eganael Putra et al., (2015), and Kusumah et al., (2018). Among these studies, there are different opinions about brand awareness, price, and promotion on purchase.
decisions. For more details, the authors have written a comparison of the gaps in the journals described above in table 1.

Table 1. Journal Gap Comparison Table

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Awareness</td>
<td>Purchase Decision</td>
<td>(+)</td>
<td>(-)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Price</td>
<td>Purchase Decision</td>
<td>-</td>
<td>-</td>
<td>(+)</td>
<td>(-)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Promotion</td>
<td>Purchase Decision</td>
<td>(-)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>(+)</td>
<td>(-)</td>
</tr>
</tbody>
</table>

The object of this research is a smartphone with the Infinix brand. Researchers limit the research variables to brand awareness, price, and promotion as factors that determine a person in buying a smartphone. This research will also be limited to the Surabaya area because of limited research time.

LITERATURE REVIEW

Brand Awareness
Rossiter and Percy (1996, p.113) state that "Brand awareness is the ability of buyers to recognize and mention brands without their categories in detail to buy something". Meanwhile, Shimp (2003, p.11) states that "Brand awareness is the ability of a brand to appear in the minds of consumers when they are thinking about a particular product category and how easily the name appears". Soehadi (2005 p.28) explains that "Customer awareness makes customers understand the product or service category in which the product competes. At a broader level, the success of building brand awareness depends on how far customers understand that the brand is designed to meet their needs". There are 4 indicators in the brand awareness variable, namely top of mind, brand recall, brand recognition, and unaware of brand.

Price
Price is the only element of the marketing mix that generates sales revenue, while the other elements are only cost elements. Although pricing is an important issue, there are still many companies that are not perfect in handling these pricing issues (Assauri, 2011, p.223). Kotler & Armstrong (2008, p.345), translated by Sabran, defines price as the amount of money charged for a product or service, or the amount of value that customers exchange to benefit from owning or using a product or service. Peter & Olson (2013, p.240), translated by Dwiandani, states that usually price is defined as what consumers have to give to buy goods or services.

Promotion
Harper Boyd states that the definition of promotion is an effort to persuade people to accept products, concepts and ideas. Swastha states that the definition of promotion is one-way persuasion that is made to effect other people who aim at actions that create exchanges in marketing. Boone and Kurtz define promotion as the process of informing, persuading, and influencing a purchasing decision.
Purchase Decision

Kotler and Kellern (2009) state that marketers should try to fully understand the customer decision-making process starting from the customer's experience in learning, choosing, using, and disposing of products. According to Vidyayanti (2010), in general, consumers go through five stages in the decision-making process. The first stage that consumers will pass is problem recognition. The second stage that consumers will pass is information search. The third stage that consumers will pass is the evaluation of alternatives. The fourth stage that consumers will pass is the purchase decision. The fifth stage that consumers will pass is post-purchase behavior.

Research Hypothesis

Indah Ria Lestari et al., (2020) state that brand awareness is awareness related to the ability of consumers to remember and recognize brands included in product categories. The results of research conducted in this journal found that brand awareness has a positive and significant effect on purchase decisions on Mazaraat Cheese products. Tiurida Lily Anita et al., (2019) states that, brand awareness is the level of consumer knowledge of product brands (for example: name, logo, image, and slogan of a brand). The results of journal research show that brand awareness does not have a significant effect on purchase decisions at Gubuk Makan Mang Engking Restaurant. Therefore, the first hypothesis is proposed:

**H1: Brand Awareness has an effect on purchase decision**

Tjahjono Djatmiko et al., (2016) define price (quoted from Samuelson, 2009) as a factor determined in accordance with the interaction between demand and supply in production factors. The research results in the journal show that price also effects decisions in purchasing smartphones. Then in the research of Nushrat Shabrin et al., (2017), price (quoted from Kotler and Armstrong, 2020) is the amount of money that consumers are willing to exchange for a service or product. The results of this research indicate that price does not have a significant effect on purchase decisions. Qausar Eganael Putra et al., (2020) concluded that price is the nominal amount of money that must be paid to obtain a product or service, or the amount of value that consumers exchange to benefit and use a product and service. The results of this research indicate that price has a positive and significant effect on purchasing decisions at hotels. Therefore, the second hypothesis is proposed:

**H2: Price berpengaruh terhadap purchase decision**

Indah Ria Lestari et al., (2020) define promotion as consumer perceptions of marketing activities. The results found that promotion did not have a significant effect on purchase decisions. Qausar Eganael Putra et al., (2020) state that promotion is a company's activity in communicating the advantages of a product or service, to persuade the target market to buy the product. The results of this research show that promotion has a positive and significant effect on purchasing decisions at hotels. Meanwhile, in the journal Kusumah et al., (2018) defines promotion (quoted from Hartley & Claycomb, 2013) as a one-way flow of information or persuasion conducted to direct a person or organization to actions that create exchanges in marketing. The research results in this journal show that promotion has no effect on purchase decisions. Therefore, the third hypothesis is proposed:

**H3: Promotion has an effect on purchase decision**
Theoretical Framework

![Research theoretical framework diagram]

Figure 3. Research theoretical framework

In accordance with the framework in this research, an initial hypothesis is made to provide initial answers to the problems that are the basis of the research to be discussed in this section. The hypothesis taken by researchers to answer the problems that are the basis of this research is that there is a positive effect that brand awareness, price, and also promotion have on the purchase decision of a smartphone.

RESEARCH METHODS

Type of Research

In accordance with the objectives to be achieved, this research purposes to identify the effect of brand awareness, price, and promotion on purchase decisions on Infinix smartphones. This research is included in the type of applied research or applied research. In accordance with the type of data from variables that represent the research object to be used as research material, this research is quantitative research because the nature of the data from the price variable and the number of smartphones represents the research object used in this research.

Data Type and Source

The type of data used in this research is primary data. Data obtained from the results of distributing questionnaires online for independent variables (brand awareness, price, and promotion) and the dependent variable (purchase decision).

Measurement Levels and Scales

The measurement level used in this research is the interval level. Interval measurement levels have equal distances and clear differences on the scale (Zikmund, 2009, p.298). Alternative answers on the interval level are arranged in accordance with numerical scales so that respondents provide an assessment of statements measured on five scales (disagree-agree), such as:

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>Strongly Agree</th>
</tr>
</thead>
</table>

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Target and Population Characteristics

The target population in this research are teenagers to adults who own Infinix smartphones. Respondents involved in this research live in Surabaya. The number of respondents involved in this research was 150 respondents.

Population and Sample

The sampling technique used in this research is non-probability sampling. With the use of this technique, the probability of any particular member of the population being selected is unknown, and the selection of the sampling unit depends on the personal judgment of the researcher (Zikmund, 2009, p.391). The type of non-probability sampling used is purposive sampling, which is sampling with the aim of obtaining a sample of people who meet some predetermined criteria (Zikmund, 2009, p.391).

Data Collection and Processing Procedures

The data collection procedures that will be conducted in this research are as follows:

1. Develop an online questionnaire using google form.
2. Determine the intended respondent criteria.
3. Distribute online questionnaires to respondents who have met the criteria.
4. Requesting respondents' willingness to fill out a questionnaire.
5. The filled questionnaires were collected as research material.
6. Selecting the collected questionnaires according to the criteria for respondents in this research.
7. Conduct validity and reliability tests.

Data Processing Method

The data processing method that will be used in this research uses SPSS software ver. 26.0. Before testing SPSS, validity and reliability tests will be conducted on 150 data that have been obtained from the initial questionnaire using SPSS 26.0 software on Windows 10.

Research Test

1. Validity test

The validity test needs to be done to find out whether the data that has been collected is valid. The validity test was conducted by calculating the Pearson's Correlation Coefficient formula, as follows:

$$r_{hitung} = \frac{N \sum XY - (\sum X)(\sum Y)}{\sqrt{\left[ N \sum X^2 - (\sum X)^2 \right] \left[ N \sum Y^2 - (\sum Y)^2 \right]}} \ldots \ldots \ldots \ldots (1)$$

With:
- $r_{count}$ = Correlation Coefficient
- $N$ = Number of respondents
- $\sum X$ = Total score of each item
- $\sum Y$ = Total score (all items)

After finding the results with the Pearson's Correlation Coefficient, the results of the $r_{count}$ are compared with the $r_{table}$. If the $r_{count}$ result is greater than the $r_{table}$, the research instrument or question is declared valid.
2. Reliability Test

Reliability testing needs to be done to determine the consistency of the data that has been collected. The method that will be used in the reliability test is the Cronbach's Alpha correlation coefficient. The research instrument is declared reliable if Cronbach's Alpha (α) is more than 0.60.

\[
\alpha = \left( \frac{k}{(k-1)} \right) \left( 1 - \frac{\sum s_i^2}{s^2} \right)
\]

With:
- \(K\) = number of items
- \(\sum s_i^2\) = jumlah varian skor total
- \(s_i^2\) = varians responden untuk item ke - i

3. Normality Test

According to Sarjono and Julianita (2011: 53) the normality test purposes to determine whether or not a data distribution is normal. The normality test used in this research is the histogram graph test, the P-Plot test (graph analysis), and the Kolmogorov-Smirnov test (statistical test).

There are two types of graph analysis, namely the histogram graph test and the P-Plot test. A condition is said to be normal, it can be known or detected by looking at the distribution of data or points on the diagonal axis of the graph. If the data spreads around the diagonal line and follows the direction of the diagonal line or the histogram graph shows a normal distribution pattern, the regression model fulfills the normality assumption. While in the Kolmogorov-Smirnov test, if the sig value (p-value) > 0.05, it means that there is no significant difference between the data to be tested and the standard normal data or normality is met.

4. Multicollinearity Test

Multicollinearity is a very high correlation that occurs in the relationship between independent variables. The method often used in this test is by looking at the VIF (Variance Inflation Factor) value or tolerance value because this method is considered the easiest to do. If it is found that the VIF value < 10 or the tolerance value > 0.10, it can be concluded that among the independent variables in this research there are no symptoms of multicollinearity.

5. Heteroscedasticity Test

Ghozalin (2013: 134) states that the heteroscedasticity test purposes to test whether a regression model has an inequality of variance from the residuals of one observation to another. In this research, the method used to test heteroscedasticity is a plot graph. For the plot graph test in this research using scatterplot, if the dots do not form a clear pattern, then the dots spread above and below the number 0 on the Y axis, it indicates that there is homokedastisitas or no heterokedastisitas (Ghozali, 2013: 136).

6. Multiple Linear Regression Analysis

If in a research there is only one dependent variable and one independent variable, it is called simple regression analysis. However, if a research has several independent variables, then the analysis is called multiple regression analysis. Sarjono and Julianita (2011: 91) state that this regression analysis is used to determine the effect between a dependent variable and an independent variable.

7. Coefficient of Determination (R²)

The Coefficient of Determination (R²) is a measure that says how well the sample regression line fits the data. R² describes the percentage of the amount of variation that can actually be explained by the linear regression line (Firdaus, 2011: 91). In the
case of a relationship of three or more variables, there will be the percentage contribution of each variable X to the variation in the rise and fall of Y together. The percentage of this contribution is called the multiple-coefficient of determination which is usually denoted by the symbol R².

8. Regression Model Test

Testing the regression model in this research will be conducted with the F test. F testing or model testing is used to determine whether the results of the regression analysis are significant or not, in other words, the model that is suspected is appropriate or not. If the results are significant, then H0 is rejected and H1 is accepted. Meanwhile, if the results are not significant, then H0 is accepted and H1 is rejected.

9. t Test

The t test is an analysis to test the significance of the regression coefficient partially. The significance level used can be 0.05 or 0.01. The purpose of this T test is to determine whether the independent variables partially affect or not the dependent variable. If the t table < t count then the independent variable has an effect on the dependent variable, and if the significance level < 0.05 then it can be said that there is a strong effect between the dependent variable and the independent variable.

RESULTS AND DISCUSSION

Validity Test

The brand awareness variable consists of 9 questions. In this validity test, it has the result that all of these questions are valid because they have a rcount value higher than 0.361 and a sig value. r question items are smaller than 0.05 (α = 0.05) which means that each variable item is valid.

<table>
<thead>
<tr>
<th>Item</th>
<th>Rcount</th>
<th>sig.</th>
<th>rtable</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1</td>
<td>0.715</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.2</td>
<td>0.671</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.3</td>
<td>0.743</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.4</td>
<td>0.861</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.5</td>
<td>0.783</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.6</td>
<td>0.695</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.7</td>
<td>0.785</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.8</td>
<td>0.822</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.9</td>
<td>0.446</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
</tbody>
</table>

In the price variable, there are 7 questions where in front of the question number the code X2 will be given. In this validity test, it has the result that all of these questions are valid because they have an rcount value higher than 0.361 and the value of the r question item is smaller than 0.05 (α = 0.05), which means that each variable item is valid.
Table 3. Price Variable Validity Test Table

<table>
<thead>
<tr>
<th>Item</th>
<th>R_count</th>
<th>sig.</th>
<th>r_table</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>X2.1</td>
<td>0.686</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.2</td>
<td>0.750</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.3</td>
<td>0.762</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.4</td>
<td>0.826</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.5</td>
<td>0.704</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.6</td>
<td>0.772</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X2.7</td>
<td>0.738</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
</tbody>
</table>

In the promotion variable, it has 6 questions. In this validity test, it has the result that all of these questions are valid because they have a r_count value higher than 0.361 and a sig value. r question items are smaller than 0.05 (α = 0.05) which means that each variable item is valid.

Table 4. Promotion Variable Validity Test Table

<table>
<thead>
<tr>
<th>Item</th>
<th>R_count</th>
<th>sig.</th>
<th>r_table</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>X3.1</td>
<td>0.638</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X3.2</td>
<td>0.795</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X3.3</td>
<td>0.810</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X3.4</td>
<td>0.674</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X3.5</td>
<td>0.745</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>X3.6</td>
<td>0.750</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
</tbody>
</table>

In the purchase decision variable, there are 7 questions. In this validity test, it has the result that all of these questions are valid because they have a r_count value higher than 0.361 and the sig value. r question items are smaller than 0.05 (α = 0.05) which means that each variable item is valid.

Table 5. Table Uji Validitas Variable Purchase Decision

<table>
<thead>
<tr>
<th>Item</th>
<th>R_count</th>
<th>sig.</th>
<th>r_table</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>0.751</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y2</td>
<td>0.771</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y3</td>
<td>0.704</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y4</td>
<td>0.819</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y5</td>
<td>0.776</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y6</td>
<td>0.766</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
<tr>
<td>Y7</td>
<td>0.740</td>
<td>0.000</td>
<td>0.160</td>
<td>Valid</td>
</tr>
</tbody>
</table>
Reliability Test

If the value of the Cronbach's Alpha reliability coefficient is greater than 0.6, the variable is reliable. From table 13, it is known that the value of Cronbach's Alpha for all variables is greater than 0.6. From the provisions previously mentioned, all variables used for research are reliable.

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Reliability Coefficient</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>X1</td>
<td>0.891</td>
<td>Reliable</td>
</tr>
<tr>
<td>2</td>
<td>X2</td>
<td>0.866</td>
<td>Reliable</td>
</tr>
<tr>
<td>3</td>
<td>X3</td>
<td>0.830</td>
<td>Reliable</td>
</tr>
<tr>
<td>5</td>
<td>Y</td>
<td>0.876</td>
<td>Reliable</td>
</tr>
</tbody>
</table>

Normality Test

The test procedure is conducted with the Kolmogorov-Smirnov test, with the determination of the hypothesis used, H0 as residuals spread normally and H1 residuals spread non-normally. If the sig value. (p-value) > 0.05 then H0 is accepted which means normality is met. From the calculation results, the sig. value is 0.958 (can be seen in table 7) or greater than 0.05, then the H0 provision is accepted, namely that the normality assumption is met.

<table>
<thead>
<tr>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Normal Parameters(a,b)</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Most Extreme Differences</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

Description:
- Test distribution is Normal.
- Calculated from data.

In accordance with the histogram graph test, it is found that the residual frequency is mostly clustered on the value of 0 or the value of the data distribution is in accordance with the normal curve so that it is said that the residuals have spread in a normal distribution. In accordance with the P-P Plot test results in Figure 5, it is found that the data points have spread following the diagonal line, so it is said that the residuals have spread normally.

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Multicollinearity Test

The test method is to compare the tolerance value obtained from the multiple regression calculation, if the tolerance value <0.1 then multicollinearity occurs.

Table 8. Multicollinearity Test Result Table

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>X1</td>
<td>0.439</td>
</tr>
<tr>
<td>X2</td>
<td>0.333</td>
</tr>
<tr>
<td>X3</td>
<td>0.334</td>
</tr>
</tbody>
</table>

The tolerance value for the brand awareness variable is 0.439. For the price variable, it has a tolerance value of 0.333. Meanwhile, the promotion variable has a tolerance value of 0.334. In the test results, it has been found that the overall tolerance value > 0.1 so it can be concluded that there is no multicollinearity between the independent variables.

The VIF value for the brand awareness variable is 2.280. Meanwhile, the VIF value for the price variable is 3.005. And finally, the promotion variable has a VIF value of 2.997. From the test results it can be concluded that there is no multicollinearity between

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free variables. Thus, the assumption test for the absence of multicollinearity can be fulfilled.

Heteroscedasticity Test

By looking at Figure 6, from the test results it is found that the residual values have spread randomly without forming a certain pattern, so it can be concluded that the residuals have a homogeneous (constant) variety or in other words there are no symptoms of heteroscedasticity.

Regression Equation

This regression analysis is used to calculate the amount of effect between the independent variables, namely brand awareness (X1), price (X2), promotion (X3) on the dependent variable, namely purchase decision (Y).

Table 9: Equation Table of Regression Results

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Constant)</td>
<td>0.214</td>
<td>1.670</td>
<td>0.128</td>
<td>0.898</td>
</tr>
<tr>
<td></td>
<td>X1</td>
<td>0.313</td>
<td>0.064</td>
<td>0.370</td>
<td>4.898</td>
</tr>
<tr>
<td></td>
<td>X2</td>
<td>0.349</td>
<td>0.099</td>
<td>0.307</td>
<td>3.538</td>
</tr>
<tr>
<td></td>
<td>X3</td>
<td>0.277</td>
<td>0.119</td>
<td>0.202</td>
<td>2.335</td>
</tr>
</tbody>
</table>

The regression equation obtained in accordance with table 16 related to the regression results equation table is as follows:

\[ Y = 0.214 + 0.313X_1 + 0.349X_2 + 0.277X_3 \]

From the above equation, it can be interpreted as follows:

- b1 has a value of 0.313, meaning that the purchase decision will increase by 0.313 units for each additional unit of X1 (brand awareness).
- b2 has a value of 0.349, meaning that the purchase decision will increase by 0.349 units for each additional unit of X2 (price).
- b3 has a value of 0.227, meaning that the purchase decision will increase by 0.227 units for each additional unit of X3 (promotion).
Coefficient of Determination ($R^2$)

To determine the contribution of the independent variables (brand awareness ($X_1$), price ($X_2$), and promotion ($X_3$)) to the dependent variable (purchase decision ($Y$)) the adjusted $R^2$ value is used.

Table 10: Coefficient of Determination Table

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.797</td>
<td>0.635</td>
<td>0.628</td>
</tr>
</tbody>
</table>

From the analysis in table 10, the adjusted R (coefficient of determination) result is 0.628. This means that 62.8% of the purchase decision variable will be effected by the independent variables, namely brand awareness ($X_1$), price ($X_2$), and promotion ($X_3$). Meanwhile, the remaining 37.2% of the purchase decision variable will be affected by other variables not discussed in this research.

In addition to the coefficient of determination, a correlation coefficient is also obtained which shows the magnitude of the relationship between the independent variables, namely brand awareness, price, and promotion with the purchase decision variable, the $R$ value (correlation coefficient) is 0.797, this correlation value indicates that the relationship between the independent variables, namely brand awareness ($X_1$), price ($X_2$), and promotion ($X_3$) with the purchase decision is included in the very strong category because it is in the range 0.8 - 1.

**F Test**

If the results of the F test are significant, then $H_0$ is rejected and $H_1$ is accepted. Meanwhile, if the results are not significant, then $H_0$ is accepted and $H_1$ is rejected. It can also be said that $H_0$ is rejected if $F_{count}>F_{table}$ and $H_0$ is accepted if $F_{count}<F_{table}$.

![ANOVA Table](image)

In accordance with Figure 7, the $F_{count}$ value is 84.781, while the $F_{table}$ ($\alpha = 0.05$; $db\ regression = 3; db\ residual = 146$) is 2.667. Because $F_{count}>F_{table}$, namely 84.781 > 2.667 or the value of Sig. $F (0.000)<\alpha = 0.05$ then the regression analysis model is good. This means that $H_0$ is rejected and $H_1$ is accepted.

**T Test**

If $t_{count}>t_{table}$ or $-c_{count}<-t_{table}$ then the results are significant and mean $H_0$ is rejected and $H_1$ is accepted. Meanwhile, if $t_{count}<t_{table}$ or $-c_{count}>-t_{table}$ then the result is not significant and means $H_0$ is accepted and $H_1$ is rejected. In accordance with table 11, the following results are obtained:

- The test between $X_1$ (brand awareness) and $Y$ (purchase decision) shows $t_{count} = 4.898$. Meanwhile, the $t_{table}$ ($\alpha = 0.05$; $db\ residual = 146$) is 1.976. Because $t_{count}>t_{table}$, namely 4.898 > 1.976 or sig $t_{value} (0.000) < \alpha = 0.05$, the effect of $X_1$ (brand awareness) on purchase decision is significant.
- The test between $X_2$ (price) and $Y$ (purchase decision) shows $t_{count} = 3.538$. While the $t_{table}$ ($\alpha = 0.05$; $db\ residual = 146$) is 1.976. Because $t_{count}>t_{table}$, namely 3.538 > 1.976

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or sig t value (0.001) < α = 0.05, the effect of X2 (price) on purchase decision is significant at 5% alpha.

- The t test between X3 (promotion) and Y (purchase decision) shows tcount = 2.335. Meanwhile, the t table (α = 0.05; df residual = 146) is 1.976. Because tcount > ttable, namely 2.335 > 1.976 or sig t value (0.021) < α = 0.05, the effect of X3 (promotion) on purchase decision is significant at 5% alpha.

<table>
<thead>
<tr>
<th>Table 11: Table of t test results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Relationship</td>
</tr>
<tr>
<td>Brand Awareness (X1) ( \rightarrow ) Purchase Decision (Y)</td>
</tr>
<tr>
<td>Price (X2) ( \rightarrow ) Purchase Decision (Y)</td>
</tr>
<tr>
<td>Promotion (X3) ( \rightarrow ) Purchase Decision (Y)</td>
</tr>
</tbody>
</table>

**CONCLUSIONS AND SUGGESTIONS**

**Conclusions**

This research was conducted to determine which variables have an effect on purchase decisions. In this research, the independent variables used are brand awareness (X1), price (X2), promotion (X3) variables while the dependent variable used is purchase decision (Y).

In accordance with the calculation of multiple linear regression analysis, it can be seen:

1. The simultaneous effect (together) of each independent variable on purchase decision is done by testing F-test. From the results of multiple linear regression analysis, it is obtained that the independent variables have a significant effect simultaneously on the purchase decision. So it can be concluded that testing the hypothesis which states that there is a simultaneous effect of the independent variables on the purchase decision variable can be accepted.
2. In accordance with the results of the T test, it is found that the brand awareness variable (X1) has a significant effect on purchase decision.
3. In accordance with the T test results, it is found that the price variable (X2), which has a significant effect on purchase decision.
4. In accordance with the T test results, it is found that the promotion variable (X3) has a significant effect on purchase decision.
5. In accordance with the T test results, it is found that the brand awareness variable has the largest tcount value and beta coefficient. So that the brand awareness variable has the strongest effect compared to other variables, the brand awareness variable has a dominant effect on purchase decision.

**Suggestion**

In accordance with the above conclusions, several suggestions can be made which are expected to be useful for the company and for other parties. The suggestions given include:

1. It is hoped that the company can maintain and improve the quality of brand awareness, because the brand awareness variable has a dominant effect in influencing purchase decisions, so that purchase decisions will increase.
2. Given that the independent variables in this research are very important in influencing purchase decisions, it is hoped that the results of this research can be used as a reference for future researchers to develop this research by considering other variables which are other variables outside the variables that have been included in this research.
REFERENCES


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