The Influence of Product Quality, Brand Image on Purchase Decisions and Brand Trust as Mediation Variables  
(Study on iPhone Users in Malang City)

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Abstract  
Smartphone users in Indonesia are ranked among the countries with the most users in the world. The decision to buy a smartphone is inseparable from product quality, brand image, and brand trust in smartphone products. This study aims to determine the direct and indirect effect of product quality, brand image on purchase decisions, and brand trust on iPhone users in Malang. This study uses a descriptive explanatory quantitative approach. The sampling technique used purposive sampling totaling 250 respondents. Data analysis of this research was carried out using the SEM-PLS method using WarpPLS 7.0 software and Sobel Test. The SEM-PLS is composed of the measurement model (outer model), the structural model (inner model) and Goodness of Fit (GoF). The results show that: 1) product quality has a direct positive and significant effect on brand trust & purchase decisions 2) brand image has a direct positive and significant effect on brand trust & purchase decisions 3) brand trust has a direct positive and significant effect on purchase decisions 4) product quality has a positive and significant effect on purchase decisions through brand trust. 5) brand image has a positive and significant effect on purchase decisions through brand trust. Based on the results of this study, the researchers suggest that this research is not only one product, so it can be generalized widely.

Keywords: Product Quality, Brand Image, Purchase Decisions, Brand Trust

INTRODUCTION  
Technological advances are moving very rapidly, so from having to keep up with developments so as not to lose competitiveness (Schwab, 2016) Smartphones are mobile devices that are more than just making and receiving phone calls or text messages. The basic feature of a smartphone is accessing the internet. Accessed digital media such as pictures, music, and videos. In addition, smartphones need to have the ability to use small computer programs called applications or APSS (Weinberg, 2012). Currently, smartphone products are being introduced by several companies. This is done to improve consumer purchasing decisions and become the target of every smartphone company. Smartphones are currently technology-oriented and rely on more technical devices so that these devices are affordable (Shabrin, 2020). One of the competing smartphone brands in Indonesia is the iPhone smartphone. However, competition in this era of globalization is not only in terms of product advantages and product features but also brands attached to consumers.  

Supported by Statecounter Global Stats (2022) that Apple ranks fifth in Indonesia. According to research by Hawari and Rustiadi (2022) Apple as one of the main players in the global smartphone market, does not have a strong position in the market but there is a unique pattern found in the iPhone market in Indonesia because the second-hand market is growing, although newer iPhones continue to be released every year. The global market share shows a different finding that, apart from the premium price of the Apple iPhone, the product has managed to gain a position as the second largest smartphone manufacturer in the global market. The role in purchasing decisions needs to be considered by looking at the quality of the product. Azar et al’s research (2022) shows that product quality affects purchase decisions, if
the product quality is good, the better for making purchasing decisions. As supported by other research, product quality and a good brand image will affect the value, but in Indonesia at a reasonable price, you can get a good quality and brand image (Fitri, 2020; Yusdani, 2020).

Generally, iPhone users in Indonesia are iPhone Second users, according to research by Hawari and Rustiadi (2022) stating that used iPhones grow in a gray area because these phones have not officially registered IMEI to operate in Indonesia, which are considered illegal smartphones but are still allowed to be imported by Indonesia customs, but not operating due to IMEI restrictions by the Ministry of Industry. The solution is to make a certified Refurbished iPhone specially designed for emerging markets, especially the Indonesian market.

Every product sold in the market has its image in the eyes of its consumers which is deliberately created by marketers to distinguish it from competitors (Kotler and Keller, 2016). According to Haryono (2020) to improve brand image, the Apple company must continue to improve Apple products to provide complete features, and better quality so that consumer appeal will improve the brand image on iPhone smartphones. One way is to provide the best according to the needs and desires of consumers. The better the brand image attached to the product; the more consumers will be interested in buying the product. If consumers do not have experience with a product, they tend to trust a preferred or well-known brand (Schiffman and Kanuk, 2008) then the role of brand trust is very important. As supported by the statement of Ashley and Leonard (2009) brand trust in iPhone products is very concerned about the interests and welfare of consumers, involving the ability and willingness to meet consumer needs.

**RESEARCH METHODS**

This research uses a quantitative approach and the type of this research is descriptive explanatory research. This study has independent variables, namely product quality (X1) and brand image (X2), the dependent variable is purchase decision (Y), and the mediating variable is brand trust (Z). The population in this study is iPhone users who are in Malang City. The sampling technique in this study used purposive sampling which was calculated using the Lemeshow formula (1997) so that 250 respondents were obtained. Data collection techniques using a questionnaire with a Likert scale score. The data analysis technique in this study was carried out using the Partial Least Square (PLS) method using WarpPLS 7.0 and The Sobel test.

**RESULTS AND DISCUSSION**

![Figure. 1. PLS Line Model](https://ijhess.com/index.php/ijhess/)
A. Inner Model - Adjusted R-Squares

Adjusted R-squares aim to explain the effect of certain exogenous latent variables on whether endogenous latent variables have an effect. The calculation results of Adjusted R-squares are presented in the following table:

<table>
<thead>
<tr>
<th>Variable Endogenous</th>
<th>Adjusted R-Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Trust</td>
<td>0.652</td>
</tr>
<tr>
<td>Purchase Decision</td>
<td>0.567</td>
</tr>
</tbody>
</table>

Based on the table above, it can be seen that the Adjusted R-squares value of the brand trust variable is 0.652 or 65.2%. This shows that the brand trust variable can be explained by the product quality, brand image, and purchase decision variables of 65.2%. Meanwhile, the remaining 34.8% is explained by other variables not discussed in this study.

Then the Adjusted R-squares value of the purchase decision variable is 0.567 or 56.7%. This shows that the purchase decision variable can be explained by the product quality and brand image variables of 56.7%. Meanwhile, the remaining 43.3% is explained by other variables not discussed in this study.

B. Hypothesis testing

Hypothesis testing aims to test the effect of exogenous variables directly and indirectly on endogenous variables. In testing the hypothesis if the path coefficient is positive and the p-value <0.05 (significance level = 5%), then there is a positive and significant effect of exogenous variables on endogenous variables. The results of testing the direct and indirect influence hypothesis are presented in the following table:

<table>
<thead>
<tr>
<th>Exogenous</th>
<th>Mediator</th>
<th>Endogenous</th>
<th>Path Coefficient</th>
<th>Indirect Coefficient</th>
<th>SE</th>
<th>P Value</th>
<th>Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Quality</td>
<td>-</td>
<td>Brand Trust</td>
<td>0.435</td>
<td>-</td>
<td>0.059</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>Brand Image</td>
<td>-</td>
<td>Brand Trust</td>
<td>0.429</td>
<td>-</td>
<td>0.059</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>Product Quality</td>
<td>-</td>
<td>Purchase Decision</td>
<td>0.171</td>
<td>-</td>
<td>0.061</td>
<td>0.003</td>
<td>Accepted</td>
</tr>
<tr>
<td>Brand Image</td>
<td>-</td>
<td>Purchase Decision</td>
<td>0.150</td>
<td>-</td>
<td>0.062</td>
<td>0.008</td>
<td>Accepted</td>
</tr>
<tr>
<td>Brand Trust</td>
<td>Purchase Decision</td>
<td>0.485</td>
<td>-</td>
<td>0.058</td>
<td>&lt;0.001</td>
<td>Accepted</td>
<td></td>
</tr>
<tr>
<td>Product Quality</td>
<td>Brand Trust</td>
<td>Purchase Decision</td>
<td>-</td>
<td>0.211</td>
<td>0.043</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
<tr>
<td>Brand Image</td>
<td>Brand Trust</td>
<td>Purchase Decision</td>
<td>-</td>
<td>0.208</td>
<td>0.043</td>
<td>&lt;0.001</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

The structural model of the Brand Trust variable is as follows:
BT = 0.435(Product Quality) + 0.429(Brand Image)

The structural model of the Purchase Decision variable is as follows:
PD = 0.171(Product Quality) + 0.150(BI) + 0.485(Brand Trust)
1. H1: There is a positive and significant effect between product quality and brand trust on iPhone users in Malang City. Based on the table above, it is explained that the path coefficient is 0.435 with a P value of <0.001. Thus, H1 is accepted.

2. H2: There is a positive and significant influence between brand image and brand trust on iPhone users in Malang City. Based on the table above, it is explained that the path coefficient is 0.428 with a P value of <0.001. Thus, H2 is accepted.

3. H3: There is a positive and significant influence between product quality on purchase decisions on iPhone users in Malang City. Based on the table above, it is explained that the path coefficient is 0.171 with a P value of 0.003. Thus, H3 is accepted.

4. H4: There is a positive and significant influence between the brand image on purchase decisions of iPhone users in Malang City. Based on the table above, it is explained that the path coefficient is 0.150 with a P value of 0.008. Thus, H4 is accepted.

5. H5: There is a positive and significant influence between brand trust on purchase decisions on iPhone users in Malang City. Based on the table above, it is explained that the path coefficient is 0.485 with a P value of <0.001. Thus, H5 is accepted.

6. H6: There is an indirect influence between product quality on purchase decisions through brand trust among iPhone users in Malang City. Based on the table above, it is explained that the path coefficient of the influence of product quality on purchase decisions through brand trust is 0.221 with a P value of <0.001. Thus, H6 is accepted.

7. H7: There is an indirect influence between the brand image on purchase decisions through brand trust in iPhone users in Malang City. Based on the table above, it is explained that the path coefficient of the influence of brand image on purchase decisions through brand trust is 0.208 with a P value of <0.001. Thus, H7 is accepted.
C. Sobel Test
The effect of product quality on purchase decision through brand trust as a mediating variable. The hypothesis below mediation is supported.

\[ A: 0.435 \]
\[ B: 0.485 \]
\[ SE_A: 0.059 \]
\[ SE_B: 0.058 \]

Sobel test statistic: 5.53024177
One-tailed probability: 0.00000002
Two-tailed probability: 0.00000003

The effect of brand image on purchase decision through brand trust as mediating variable. The hypothesis below mediation is supported.

\[ A: 0.429 \]
\[ B: 0.485 \]
\[ SE_A: 0.059 \]
\[ SE_B: 0.058 \]

Sobel test statistic: 5.48693523
One-tailed probability: 0.00000002
Two-tailed probability: 0.00000004

Discussion
1. The Influence of Product Quality on Brand Trust on iPhone users in Malang City

The results of the analysis of the variable product quality has an effect positive and significant on brand trust. Based on the assessment of the variable product quality it causes a high brand trust. iPhone has a good brightness level, attractive design and features, water resistance, good durability, good audio quality, superior front and rear cameras so that it gives consumers confidence in increasing to use iPhone. Supported by research Wijaya (2020) states that product quality is related to brand trust so consumers believe in product quality can provide brand trust. And other research by Hapsoro & Hafidh (2018); Hanasyha et al (2014) concluded that product quality has a positive and significant influence on brand trust.
2. **The Influence of Brand Image on Brand Trust of iPhone users in Malang City**

The results of the analysis of the variable brand image has an effect of postives and significant on brand trust. Based on the assessment of the variable brand image it causes as high brand trust. Apple company creates good product such as logos, colors and shapes of each series are always up to date so that consumers trust and use Apple products. Supported by Diputra & Yasa's research (2021); Aeni & Ekhsan (2021); Hasan, et al (2021); Hokky & Bernardo (2021); Juliana & Johan (2020) stated that brand image has a positive and significant relationship with brand trust.

3. **The Influence of Product Quality on Purchase Decisions on iPhone users in Malang City**

The results of the analysis of the variable product quality has an effect of positives and significant on purchase decisions. Based on the assessment of the variable product quality it causes as high purchase decisions. Quality on uses iPhone is widely used by iPhone users in the Malang City. Consumers desire to choose the iPhone seen from the quality of used iPhone products which are the same as quality new iPhone users. Supported by research by Azar et al (2014); Tjahjono et al (2021); Bimaruci et al (2021); Gulliando (2019); Kim et al (2019) which state that product quality has a positive and significant relationship to purchase decisions.

4. **The Influence of Brand Image on Purchase Decisions on iPhone users in Malang City**

The results of the analysis of the brand image on purchase decisions. Based on the assessment of the variable brand image it causes as high purchase decisions. Apple logo that is easy to remember the iPhone smartphone product. Because consumers decide to digging up information first. Supported by Rosanti's research (2021); Gulliando (2019) which state product quality.

5. **The Influence of Brand Trust on Purchase Decisions on iPhone users in Malang City**

The results of the analysis of the brand trust on purchase decisions. Based on the assessment of the variable brand trust it causes as high purchase decision. Brand trust has a relationship with purchasing decisions. Apple is as well-known brand in Indonesia. Iphone has advantages such as good resolution attractive accessories. So that the role of brand trust can decide to make purchase of iPhone users. Supported by research by Rosanti et al (2021); Maulana et al (2021); Rybczewska (2020); Shabrin et al (2017) which state that brand trust has a positive and significant effect on purchase decisions.

6. **The Influence of Product Quality on Purchase Decisions through Brand Trust on iPhone users in Malang City**

The results of the analysis of the product quality on purchase decisions through brand trust. That is, the higher the product quality caused by brand trust, the more likely it is to increase the purchase decision. Product quality on purchasing decisions such as the quality of the second iPhone is the same as the quality of the new iPhone including the suitability of the camera, screen and clear sound so that consumers believe in determining the purchase decision assisted by digging about product specifications and through brand trust someone will be easier to understand in the satiscation of using the iPhone. Supported by research by Ayu and Ketut (2021), Hapsoro and Hafidh (2018) state that product quality has a positive and significant effect on purchase decisions through brand trust.

7. **The Influence of Brand Image on Purchase Decisions through Brand Trust on iPhone users in Malang City**

The results of the analysis of brand image on purchase decisions through brand trust. That is, the higher the brand image caused by brand trust, the more likely it is to increase the purchase decision. The Apple brand on iPhone smartphone product is a well-known brand in
Indonesia so that consumers can decide to buy iPhone products with the help of an iPhone brand that is trusted in Indonesia and has a good reputation. Supported by research by Ayu and Ketut (2021), Hapsoro and Hafidh (2018) state that brand image has a positive and significant effect on purchase decisions through brand trust.

CONCLUSION

The results show that: 1) product quality has a direct positive and significant effect on brand trust & purchase decisions 2) brand image has a direct positive and significant effect on brand trust & purchase decisions 3) brand trust has a direct positive and significant effect on purchase decisions 4) product quality has a positive and significant effect on decisions through brand trust 5) brand image has a positive and significant effect on decisions through brand trust.

Based on the results of this study, the researchers provide suggestions, namely: 1) this research is expected to be a reference and information material to determine product quality, brand image, and brand trust as a determinant of consumer purchasing decisions to be able to provide benefits and academic contributions to social science, especially marketing concentration 2) This research is expected to be a means to provide a reference in conducting further research related to Product Quality, Brand Image, Brand Trust, Purchase Decision.

The limitations of this study are: 1) The method of data collection in this study used a questionnaire. The limitations of research using questionnaires are not able to provide more in-depth information that can be obtained from each respondent 2) Respondents who are used only use one iPhone product so the results are not broadly generalized.

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