# The Effect of Product Quality and Brand Image on Xiaomi Smartphone Purchase Decisions

Yollanda Ayu Saputri[1],Supriyono[2*]
Universitas Pembangunan Nasional "Vetera" Jawa Timur
**Corresponding Author:**Supriyono
Supriyono.ma@upnjatim.ac.id

| A R T I C L E I N F O | A B S T R A C T |
|---|---|
| <br><br> | This study aims to determine the effect of product quality and brand image on purchasing decision Xiaomi smartphone. The population in this study are Xiaomi smartphone consumers in the region of Rungkut Surabaya. The sampling method use is non-probability so that results obtained were 80 respondents. The measurement scale used in this studies is the Skala Likert scale. The data used is primary data, namely questionnaire data from answers to respondents and secondary data, namely data obtained from sales data and supporting sources for the research topic. The analysis used is partial least square (PLS)with validity test, reliability test, and hypothesis test. The result of the study, it was found that product quality and brand image has a positive and significant on purchasing decision smartphoneXiaomi. |

**INTRODUCTION**

The rapid development of technology in the field of communication tools has brought tremendous benefits to the advancement of human civilization. Advances in communication technology have become a very important role as a liaison in every activity and human needs in communicating. Communication tools have become a basic need for every society, this can be seen from the many manufacturers of competing communication equipment products offering their superior products and trying to innovate to meet consumer needs. One of the most widely used communication tools by the public is a smartphone. Smartphone is a communication device that has more complete features, when compared to previous mobile phones. Even a smartphone one might say as a microcomputer because it can run various applications (Andrenata et al., 2022:2). The various facilities offered by smartphones can certainly support daily activities and obtain information more efficiently. So that the use of smartphones in Indonesia continues to increase. According to data from mobile device dealers in Indonesia in 2022, there will be 370.1 million devices. This number increased by 3.6% compared to 2021, which amounted to 345.3 million devices. In addition, according to Newzoo, Indonesia occupies the fourth position as the country with the most smartphone users with a total of 192.15 million smartphone users.

The demand for smartphones continues to increase, resulting in intense competition for smartphone companies. Smartphone companies are required to innovate and follow consumer demand in order to maintain the company's existence. Smartphone competition with well-known brands such as Samsung, Oppo, Xiaomi, Vivo and Iphone, to occupy the position as market leader. One of the smartphones circulating in Indonesia is Xiaomi.

Based on Xiaomi's revenue as of Q1 2018-2022, in 2022 Xiaomi's total revenue was 73.4% billion yuan, a decrease of 4.6% compared to the same period in the previous year which was recorded at 76.9 billion yuan. Xiaomi's revenue decline is the first time since the 1st quarter of 2018.

Based on the survey results (Top Brand Index) in Indonesia, the smartphone category for 2018-2022 shows that the market share for each product has increased and decreased. The increase every year is experienced by the Oppo company. Meanwhile, Xiaomi has experienced increases and decreases, in 2018 with an index value of 5.50%, in 2019 with an index value of 14.30%, in 2020 with an index value of 10.10%, in 2021 with an index value of 12.40%. , and in 2022 it will decrease with an index value of 11.20%.

Based on sales data at a store, it shows that in the first quarter of 2021 there was an increase in sales from 144 units to 147 units in the first quarter of 2022. In the second quarter of 2022, sales decreased, 170 units in the second quarter of 2021 to 166 units in the second quarter of 2022. Sales in the third quarter and IV 2021 are also superior when compared to the III and IV quarters of 2022.

Xiaomi's decline can occur because consumers are more selective in making purchases. Factors that influence the decision to buy a Xiaomi smartphone are product quality and brand image. There is some negative news and negative consumer assessments of the quality of Xiaomi smartphones such as smartphones exploding, ads piling up, and heating up quickly so they often burn on the screen. Apart from that, there is negative news Mentioning Xiaomi smartphones as "Gacha" phones, of course, this news can affect Xiaomi's brand image.

Product quality and brand image become an evaluation for consumers before making a purchase. So that the better the product and brand image produced, the level of purchasing decisions will increase. This statement is supported by empirical studies that have been conducted by Pamelia and Sudarwanto (2022) with the title "The Influence of Product Quality and Brand Image on Purchasing Decisions of Honda Beat Matic Motorcycles. (Study on Residents of Pesona Permata Ungu Krian Sidoarjo Sidoarjo)", showing the results that product quality and brand image have a positive effect on purchasing decisions.

Based on the description above, the objectives of this study are: (1) To determine the effect of product quality on Xiaomi smartphone purchasing decisions. (2) To determine the effect of brand image on Xioami smartphone decisions.

**THEORETICAL REVIEW**

*Marketing*

According to The American Marketing Association (AMA) (Hilmiatus 2018: 2) marketing is an activity that regulates institutions, the process of creating, communicating, delivering, and offering goods and services that have value for customers, clients, partners, and society.

*Consumer Behavior*

Consumer behavior according to Swastha and Handoko (in Hendro and Hidayat, 2018: 3) is an individual or consumer activity that is directly involved in obtaining and using an item including a decision-making process in the preparation and determination of certain activities.

*Product Quality*

According to Hendro and Hidayat (2018: 4) product quality is a characteristic of a product which is shown through its ability to satisfy stated or implied needs.

According to (Anam et al. 2020: 4) consumers in making purchases will pay attention to the quality of these products, the better the quality, the greater the purchasing decisions made by consumers.

Product quality can be measured through indicators according to David Garvin (in Novianti and Sulivyo 2021: 4), namely:

 a. Performance (Performance).

b. Durability.

c. Conformance with specifications (conformance to specification).

d, Features (features).

e. Reliability (reliability).

f. Estetika (esthetica).

g. Kesan kualitas (perceived quality).

h. Kemudahan diperbaiki (service-ability).

*Brand Image*

Brand image is a representation of the overall perception of the brand and is formed from information and past experiences with that brand (Fera and Pramuditha 2021: 6).

Brand image has a very important role in influencing purchasing decisions. Because if the brand image has a positive impression on the minds of consumers, it will be more likely to make purchases (According to Fadhilah, 2021: 3)

Brand image can be measured through indicators according to Freddy Rangkuti (in Supriyatna 2020: 5), namely: a. Recognition (introduction). b. Reputation (reputation). c. Affinity (attraction).

## Brand Loyalty (Loyalty)

*Buying decision*

Schiffman and Kanuk (2014 in Heriyanto, Rachma, and Asiyah 2020 3) purchasing decisions are activities of choosing from several alternative choices of two or more.

Purchasing decisions can be measured through indicators according to Kotler and Armstrong (in (Segetmena, et al 2022: 3), namely: a. Buying stability after knowing product information. b. Deciding to buy because the brand is most preferred. c. Buying because it suits wants and needs d. Buying because of recommendations from others.
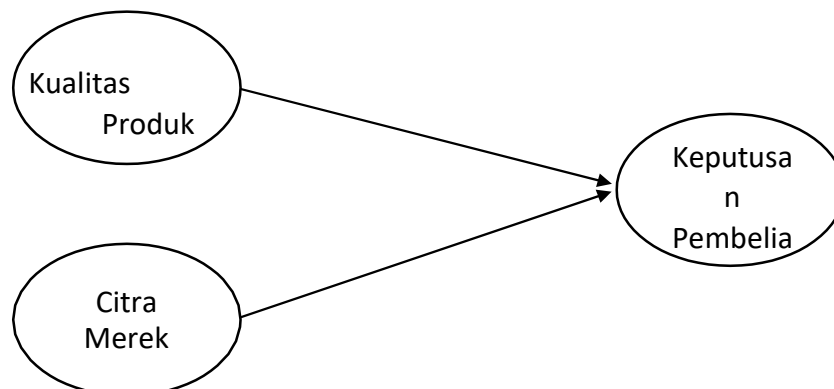
conceptual framework



Figure 1. Conceptual Framework

**Hypothesis**

H1: Allegedly Product Quality (X1) has a positive effect on purchasing decisions. H2: Allegedly Brand Image (X2) has a positive effect on purchasing decisions.

## METHODOLOGY

This research is included in quantitative research. In this study there are three variables, namely product quality, brand image, and purchasing decisions on Xiaomi smartphones.

The sampling technique used in this study is non-probability sampling with a purposive sampling technique, where the sampling technique uses considerations or criteria that can provide precise information, who are Xiaomi smartphone users in the Rungkut Surabaya area. The number of samples was taken using guidelines (Hair et al., 2014), namely the number of indicators multiplied by 5-10 estimated parameters. So that a sample of 80 respondents was obtained from (16 indicators X 5). The measurement scale used is the Likert scale with the score of the respondent's answer choices, namely 1-5. Primary data acquisition in this study was obtained by distributing questionnaires to respondents in the form of answers to the questions asked regarding the research variables. Secondary data was obtained from literature, books, journals and the internet according to the research topic. The analysis technique used in this study is Partial Least Square (PLS). PLS is a method used to construct predictable models when there are too many factors. The steps in analyzing the data include validity testing, reliability testing, structural model testing, and hypothesis testing
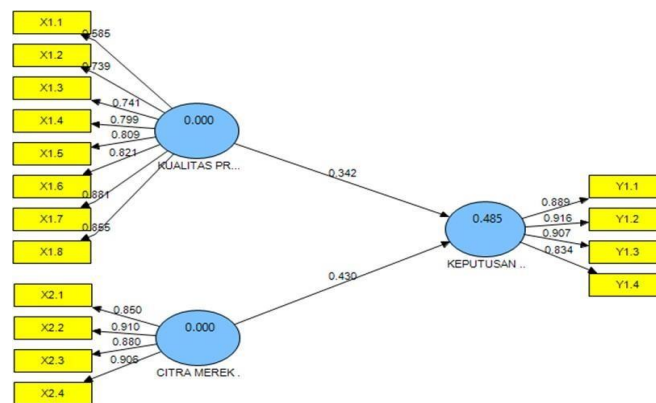
## RESEARCH RESULTS AND DISCUSSION



Figure 2. Outer Model

Source: Processed Data

To measure the validity of one of the indicators based on the output of the outer loading table, namely by looking at the magnitude of the factor loading value, because in modeling All indicators use reflective, so the table used is Outer Loadings output.

Tabel 1. Outer Loadings (Mean, STDEV, T-Values)

| | Original Sample (O) | Sample Mean (M) | Standard Devia-tion (STDEV) | Standard Error (STERR) | T Statistics (|O/STERR|) |
|---|---|---|---|---|---|
| X1.1 <- KUALITAS PRODUK (X1) | 0.584645 | 0.578591 | 0.099278 | 0.099278 | 5.888990 |
| X1.2 <- KUALITAS PRODUK (X1) | 0.739031 | 0.733236 | 0.080005 | 0.080005 | 9.237267 |
| X1.3 <- KUALITAS PRODUK (X1) | 0.741423 | 0.733312 | 0.076084 | 0.076084 | 9.744781 |
| X1.4 <- KUALITAS PRODUK (X1) | 0.799380 | 0.808853 | 0.029906 | 0.029906 | 26.730214 |
| X1.5 <- KUALITAS PRODUK (X1) | 0.809450 | 0.806892 | 0.049488 | 0.049488 | 16.356581 |
| X1.6 <- KUALITAS PRODUK (X1) | 0.820658 | 0.823125 | 0.046856 | 0.046856 | 17.514439 |
| X1.7 <- KUALITAS AS | 0.881227 | 0.881822 | 0.032901 | 0.032901 | 26.784102 |

| | | | | | |
|---|---|---|---|---|---|
| **PRODU K (X1)** | | | | | |
| **X1.8 <- KUALIT AS PRODU K (X1)** | 0.854585 | 0.8529 12 | 0.0326 05 | 0.0326 05 | 26.20995 2 |
| **X2.1 <- CITRA MERE K (X2)** | 0.850049 | 0.8455 48 | 0.0460 57 | 0.0460 57 | 18.45659 0 |
| **X2.2 <- CITRA MERE K (X2)** | 0.910091 | 0.9056 17 | 0.0262 26 | 0.0262 26 | 34.70181 2 |
| **X2.3 <- CITRA MERE K (X2)** | 0.880349 | 0.8829 70 | 0.0184 29 | 0.0184 29 | 47.76944 2 |
| **X2.4 <- CITRA MERE K (X2)** | 0.905864 | 0.9040 11 | 0.0215 74 | 0.0215 74 | 41.98795 9 |
| **Y1.1 <- KEPUTUS AN PEMBELI AN (Y)** | 0.889479 | 0.8896 29 | 0.0231 20 | 0.0231 20 | 38.47263 5 |
| **Y1.2 <- KEPUTUS AN PEMBELI AN (Y)** | 0.915600 | 0.9138 34 | 0.0303 23 | 0.0303 23 | 30.19465 1 |
| **Y1.3 <- KEPUTUS AN PEMBELI AN (Y)** | 0.907481 | 0.9066 01 | 0.0256 71 | 0.0256 71 | 35.34980 1 |
| **Y1.4 <- KEPUTUS AN PEMBELI AN (Y)** | 0.834172 | 0.8296 17 | 0.0357 01 | 0.0357 01 | 23.36553 6 |

Source: Processed Data

Based on the outer loading table above, all reflective indicators on the variable Product Quality (X1), Brand Image (X2), and Purchase Decision (Y), show a factor loading (original sample) greater than 0.50 and or significant (Value The T-Statistic is more than the value of Z $\alpha$ = 0.05 (5%) = 1.96), thus the results of the estimation of all indicators have met Convergent validity or good validity.

The next measurement model is the Avarage Variance Extracted (AVE) value, which is the value indicating the magnitude of the indicator variance contained by the latent variable. Convergent AVE values greater than 0.5 indicate good adequacy of validity for latent variables.

Tabel 2. Average variance extracted (AVE)

|  | AVE |
|---|---|
| **CITRA MEREK (X2)** | 0.786613 |
| **KEPUTUSAN PEMBELIAN (Y)** | 0.787215 |
| **KUALITAS PRODUK (X1)** | 0.614032 |

Source: Processed Data

AVE test results for Product Quality variable (X1) of 0.614032, Brand Image variable (X2) of 0.786613, and Purchase Decision (Y) of 0.787215, these three variables show a value of more than 0.5, so overall the variables in this study can be said to have good validity.

Construct reliability is measured by the composite reliability value, the construct is reliable if the composite reliability value is above 0.70 then the indicator is called consistent in measuring its latent variables.

Table 3. Composite Reliability

| Composite Reliability | |
|---|---|
| **CITRA MEREK (X2)** | 0.936446 |
| **KEPUTUSAN PEMBELIAN (Y)** | 0.936626 |
| **KUALITAS PRODUK (X1)** | 0.926317 |

Composite Reliability test results show that the Product Quality variable (X1) is 0.926317, Brand Image variable (X2) is 0.936446, and Purchase Decision (Y) is 0.936626, the three variables show Composite Reliability values above 0.70 so that it can be said that all variables in this study are reliable.

Tabel 4. Latent Variable Correlations

|  | CITRA MEREK (X2) | KEPUTUSAN PEM- BELIAN (Y) | KUALITAS PRODUK (X1) |
|---|---|---|---|
| CITRA MEREK (X2) | 1.000000 |  |  |
| KEPUTUSAN PEM- BELIAN (Y) | 0.643073 | 1.000000 |  |
| KUALITAS PRODUK (X1) | 0.621796 | 0.609636 | 1.000000 |

Source: Processed Data

From the table of latent variable correlations above, the average correlation value between one variable and another shows an average or moderate correlation value. The highest correlation value is found between the Brand Image variable (X2) and the Purchase Decision (Y) of 0.643073, it can also be stated that among the variables in the model

research, the relationship between the variable Brand Image (X2) and Purchase Decision (Y) shows a stronger relationship than the relationship between other variables, this can also be interpreted that in this research model the level of Purchase Decision is more influenced by Brand Image variables than variables Product quality.

Tabel 5. R-square

|  | R Square |
|---|---|
| CITRA MEREK (X2) |  |
| KEPUTUSAN PEMBELIAN (Y) | 0.485287 |
| KUALITAS PRODUK (X1) |  |

Source: Processed Data

In the table above, the value of $R^2$ = 0.485287 can be seen. It can be interpreted that the model is able to explain the phenomenon of Purchase Decision which is influenced by independent variables including Product Quality and Brand Image with a variance of 48.52%, while the remaining 51.48% is explained by other variables outside this study (besides Diversity and Image brand).

In addition to knowing the $R^2$ value, the Goodness of Fit of the research model can be seen from the magnitude of $Q^2$ or Q-Square predictive relevance for the structural model, which is to measure how well the

observed values produced by the model and also the parameter estimates. Q-squared value > 0 indicates the model has predictive relevance; conversely if the Q-Square value ≤ 0 indicates the model has less predictive relevance. Q-Square calculation is done by the formula:

$Q2 = 1 – ( 1 – R12 ) ( 1 – R22 ) ... ( 1- Rp2 )$ where R12 , R22 ... Rp2 are R-square variables endogenous in the selling model. The value of Q2 has a range of 0 < Q2 < 1, where the closer to 1 means the model is better. This Q2 quantity is equivalent to the total coefficient of determination in path analysis.

In this study, the value of Q2 is:

Q2= 1 – (1 – 0.485287) = 0.485287.

From the results of the Q2 calculation with a result of 0.485287, it can be concluded that the research model can be said to fulfill predictive relevance. Furthermore, for testing the hypothesis, it can be seen from the results of the coefficients and T-statistic values of the inner model in the following table.

Tabel 6. Path Coefficients (Mean, STDEV, T-Values, P-Values)

| | Path Coefficients(O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (\|O/STERR\|) | P Values |
|---|---|---|---|---|---|
| **KUALITAS PRODUK (X1) -> KEPUTUSAN PEMBELIAN (Y)** | 0.342006 | 0.353136 | 0.104935 | 3.259205 | 0.000 |
| **CITRA MEREK (X2) -> KEPUTUSAN PEM-BELIAN (Y)** | 0.430415 | 0.430595 | 0.109549 | 3.928984 | 0.000 |

Source: Processed Data

From the table above it can be concluded that the hypothesis states:

Product quality (X1) has a positive effect on purchasing decisions which is acceptable, with path coefficients of 0.342006, and a T-statistic value of 3.259205 > 1.96 (from table value Zα = 0.05) or P-Value 0.000 <0, 05, with a significant (positive) result.

Brand Image (X2) has a positive effect on Purchase Decision acceptable, with path coefficients of 0.430415, and a T-statistic value of 3.928984 > 1.96 (from table value Zα = 0.05) or P-Value 0.000 <0, 05, with a significant (positive) result.

## DISCUSSION

Effect of Product Quality on Purchasing Decisions Based on the results of the research that has been done, it can be seen that product quality contributes to Xiaomi smartphone purchasing decisions. This means, the higher the quality of products owned by a Xiaomi smartphone, the higher the decision to buy a Xiaomi smartphone.

The results of the descriptive analysis of product quality variables show that the most influential indicator on purchasing decisions is Conformance to Specification. In this case, Xiaomi provides conformity to the smartphone specifications according to the standards and quality that has been offered. This can be used as one of the reasons for making a purchasing decision, because consumers need a guarantee of conformity between the quality specifications that have been offered and the product to be purchased.

The results of this study are supported by previous research conducted by Pamelia and Sudarwanto, (2022) which states that product quality has a positive effect on purchasing decisions. As well as the results of research conducted by Novianti and

Sulivyo, (2021) that product quality has a positive effect on purchasing decisions. So it can be concluded that the higher the quality of a product, the higher the level of purchasing decisions.

The Effect of Brand Image on Purchasing Decisions Based on the results of the research that has been done, it can be seen that brand image contributes to Xiaomi smartphone purchasing decisions. This means, the higher the Xiaomi smartphone brand image, the higher the decision to buy a Xiaomi smartphone.

The results of the descriptive analysis of brand image variables show that the indicator that has the most influence on purchasing decisions is Reputation. In this case the Xiaomi smartphone has been known by many people so it has high popularity. It can be interpreted that Xiaomi smartphones have been widely used, this is because Xiaomi continues to release the latest series that have been adapted to various market segments. As well as Xiaomi oversees its loyal fans and supporters called Mi Fans,

where Xiaomi also holds joint events. So that Mi Fans certainly have a stake in introducing Xiaomi smartphone products to the wider community. This makes Xiaomi's brand image more recognized and has a good reputation.

The results of this study are supported by previous research conducted by Fera and Prambudhita, (2021) which states that brand image has a positive influence on purchasing decisions. As with the results of research conducted by Supriyatma, Yuda (2020) that brand image has a positive effect on purchasing decisions, it can be concluded that the better the brand image of a product, the higher consumer purchasing decisions for a product.

## CONCLUSION AND RECOMMENDATION

The conclusions in this study are: (1) Product quality contributes to Xiaomi smartphone purchasing decisions in the Rungkut area of Surabaya. The higher and better the quality of a product, the more it increases the purchasing decision. (2) Brand image contributes to Xiaomi smartphone purchasing decisions in the Rungkut Surabaya area. The better the brand image of a product, the more it increases the purchasing decision.

The suggestions that can be given in this study are: (1) Related to product quality, Xiaomi smartphones have good product quality. Therefore, the quality of Xiaomi smartphone products must be maintained and continuously developed, especially in terms of conformance to specifications. (2) Regarding the brand image of the Xiaomi smartphone, it has a positive and good image in the eyes of consumers. Therefore, the Xiaomi smartphone brand image must continue to be considered and developed, especially in terms of reputation)

## ADVANCED RESEARCH

This research still has limitations so it is necessary to carry out further research on this topic.

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