The Effect of Product Innovation and Price on Purchasing Decisions on Shopee Users in Bandung in 2021
(Case Study on Electronic Products Labeled Shipping from Overseas)

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Abstract: The purpose of this research is to explain how much Product Innovation and Price Influence Purchase Decisions on Shopee application in Bandung. This study used a quantitative approach with 100 respondents who used the Shopee application and the process of calculating multiple regression analysis in the process by SPSS25 software. The main data of this study was obtained from questionnaires, and secondary data obtained through the publication of journals and textbooks. Based on the results of the study that the variables Product Innovation and Price have a significant influence together on the Purchase Decision, but for variables Product Innovation has a less significant influence on the Price Decision. This shows us that Shopee app users in Bandung have other perspectives when making purchasing decisions instead of just Product Innovation that is considered.

Keywords: Product innovation; price; purchase decision

1. Introduction

Marketplace business is a business that is growing rapidly in recent years. From year to year, more and more marketplaces are present in Indonesia. Starting with a simple website now marketplace in Indonesia continues to race to develop a variety of features that can be offered. Shopee is marketplace-based e-commerce that became the first mobile-based online shopping platform in Southeast Asia and Taiwan. It was first launched in December 2015 simultaneously in 7 countries such as Indonesia, Singapore, Malaysia, Thailand, Vietnam, the Philippines, and Taiwan. Shopee is a platform specifically tailored to the needs of the Southeast Asian market, making online shopping easy, secure and flexible, through a strong payment system and logistics system support. Shopee offers its sales products and also offers buyers to be able to shop for various attractive offers anytime, and anywhere, with guaranteed transaction security. Shopee is an online shopping center where users can get the latest updates from the sellers they follow.

Product innovation is something that can be seen as functional progress of products that can bring the product to be more advanced than competitors if the product has advantages that are seen as added value for consumers. The thing that affects the occurrence of product innovation is the similarity of its products coming from competitors. Factors such as product differentiation, brand equity, price, and product innovation can be factors that influence consumers in electronic product purchase decisions. Purchase decisions are a major component in consumer behavior, which is a decision that involves a split between two or more alternatives.

So-so products will be viewed by consumers as boring products and saturated, therefore creativity, modification, and innovation are needed for the development of such products to still get a place in the hearts of consumers. In addition to these factors, price factors also play an important role in marketing. The strategy of determining the high low price greatly affects the practice or not of a product in the market. Low or affordable prices are a trigger to improve marketing performance. But the price can be an indicator of quality, where a product with high quality will dare to be pegged at a high price as well. Price can also influence consumers in making decisions to make purchases of a product. Price is one of the marketing mixes that companies can use to achieve their marketing goals.

Based on the background of the above problems, this study is proposed to examine the extent of the influence of product innovation and price on purchasing decisions. The formulation of problems in this study is, (1) The influence of product innovation on purchasing decisions on Shopee users in the city of Bandung. (2) The influence of prices on purchasing decisions on Shopee users in the city of Bandung. (3) The influence of product innovation and price on purchasing decisions on Shopee users in the city of Bandung.
2. Theoretical Studies

2.1. Product Innovation

Factors that influence the occurrence of product innovation are the similarity of the look of similar products coming from competitors. Product innovation is something that can be seen as functional progress of products that bring products to be more advanced than their competitors. According to Robbins and Coulter (2016), innovation itself is defined as taking creative ideas and turning them into useful products or working methods. In a business that can make innovations, the business can lead and minimize the possibility of competitors innovating early. Luke and Ferrell (2000) explained the existence of several indicators of product innovation, namely: Product Expansion (line extensions), Product Impersonation (me-too products), and New Products (new-to-the-world products).

2.2. Price

Kotler and Armstrong (2016) stated that: "price the only element in the marketing mix that produces revenue, all other elements represent cost". Price is the only element of the marketing mix that generates revenue, while the other elements represent costs. Pricing is also the most flexible element of the marketing mix. In contrast to product features and commitment to channels, prices can be changed quickly. But at the same time, pricing is the number one issue faced by marketing executives. A common problem is that companies are too quick to reduce prices to increase sales rather than convince buyers that their products are more valuable at high prices.

Purchasing decisions are based on how consumers consider prices and what their current actual price is, not the price marketers express. Customers may have a price value below the threshold where prices lower than that limit are of poor quality or unacceptable quality, as well as an upper limit on prices where prices higher than that limit are considered excessive and disproportionate to the money spent (Kotler & Keller, 2016).

According to Kotler and Amstrong (2012) in Akmal (2019) explained four sizes characterize the price, are: affordability of price, price conformity with product quality, price conformity with benefits, and price according to ability or purchasing power.

2.3. Purchase decision

According to Kotler and Keller (2016) explains that smart companies strive to fully understand the behavior of the purchasing decision process made by customers or consumers, in this case, all forms of consumer experience through marketing research have developed a form of purchase decision process model.

According to Kotler in Tjiptono (2012), the consumer's decision to make a purchase is a collection of several decisions. Kotler stated that when consumers make a purchase decision, 4 components make the structure of the purchase decision, namely Brand Choice, Dealer Choice, Purchase Timing, and Payment Method.

2.4. Research conceptual framework and hypothesis development
From the above frame of mind, it can be known, that what becomes an independent/free variable is product innovation (X1) and price (X2), while the dependent/bound variable is the purchase decision (Y). The hypotheses proposed in this study are as follows:

H1: It is suspected that there is an influence between product innovation (X1) partially on purchasing decisions (Y) on Shopee app users in Bandung.

H2: It is suspected that there is an influence between the price (X2) partially on the purchase decision (Y) on Shopee app users in Bandung.

H3: It is suspected that there is an influence between product innovation (X1) and price (X2) simultaneously on purchasing decisions (Y) on Shopee app users in Bandung.

3. Methods

This research will discuss issues related to the influence of product innovation and price on purchasing decisions on Shopee users in Bandung. In this study, the authors used quantitative data types and sources, for the samples selected in this study amounted to 100 consisting of Shopee application users in Bandung. This research sampling method uses the Nonprobability Sampling technique. Primary data in this study was obtained through questionnaires, while secondary data was obtained from journal publications and textbooks. Data analysis used is a descriptive analysis by adopting several linear regression analysis techniques using SPSS25 software.

4. Results and Discussion

The results of data obtained from 100 respondents showed the results obtained are as follows:

Table 1. Profile of respondents

| Respondent Profile | Percentage |
|--------------------|------------|
| Gender             |            |
| Men                | 56%        |
| Woman              | 46%        |
| Age                |            |
| <20 year           | 2%         |
| 21-25 year         | 52%        |
| 26-30 year         | 43%        |
| 31-35 year         | 3%         |
| >35 year           | 0%         |
| Education          |            |
| SD                 | 0%         |
| SMP                | 0%         |
| SMA                | 19%        |
| College            | 81%        |
| Job                |            |
| Student            | 0%         |
| College student    | 28%        |
| Entrepreneur       | 65%        |
| PNS                | 7%         |
| Monthly Income     |            |
| <1 million         | 12%        |
| 1-3 million        | 31%        |
| 3-5 million        | 35%        |
| 5-7 million        | 5%         |
| >7 million         | 17%        |

Based on the table above, for male gender has a greater percentage than women with a percentage of 56%. Based on the age of respondents 21-25 years has the highest percentage of 52%, which indicates that this age is the productive age. As for the level of education, higher education has a percentage of 81%. Based on self-employed jobs have the highest percentage gain with 65%, and for the average monthly income 3-5 million occupy the highest percentage with 35%.

4.1. Validity test

The results of the Validity Test of this study are as follows:

Table 2. Validity test

| Variable | Sub Variables | Statement | Count r | Table r | Information |
|----------|---------------|-----------|---------|---------|-------------|

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| Product Innovation | Intensity | Q1  | 0.56 | 0.1966 | Valid |
|---------------------|-----------|-----|------|--------|--------|
|                     |           | Q2  | 0.744 | 0.1966 | Valid |
|                     |           | Q3  | 0.603 | 0.1966 | Valid |
|                     |           | Q4  | 0.548 | 0.1966 | Valid |
|                     |           | Q5  | 0.588 | 0.1966 | Valid |

| Price               | Price Affordability | Q6  | 0.618 | 0.1966 | Valid |
|---------------------|---------------------|-----|-------|--------|--------|
|                     | Price Conformity With Product Quality | Q7  | 0.573 | 0.1966 | Valid |
|                     | Price Conformity With Benefits | Q8  | 0.699 | 0.1966 | Valid |
|                     | Price Following the Ability or Purchasing Power of Consumers | Q9  | 0.62  | 0.1966 | Valid |

| Purchase Decision   | Brand Choice | Q10 | 0.22  | 0.1966 | Valid |
|---------------------|--------------|-----|-------|--------|--------|
|                     | Dealer Choice | Q11 | 0.511 | 0.1966 | Valid |
|                     | Purchase Timing | Q12 | 0.532 | 0.1966 | Valid |
|                     |               | Q13 | 0.691 | 0.1966 | Valid |
|                     |               | Q14 | 0.558 | 0.1966 | Valid |
|                     | Payment Method | Q15 | 0.52  | 0.1966 | Valid |
|                     |               | Q16 | 0.42  | 0.1966 | Valid |

Validity test is used N=100, so it is known Df = N-2, then r table of 0.1966 as the limit of the value of the statement is considered valid. For all variables can be declared valid, because it has passed the minimum according to r table.

4.2. Reliability test

The results of the reliability test of this research are as follows:

| Table 3. Reliability test |
|---------------------------|
| Variable                  | Cronbach Alpha (>0.60) | Information |
| Product Innovation        | 0.651                    | Reliable    |
| Price                     | 0.605                    | Reliable    |
| Purchase Decision         | 0.758                    |             |

Table 3 shows that the result of Cronbach Alpha variable X1 is 0.651, variable X2 is 0.605 and variable Y is 0.758, According to Ghozali (2011), if the value of Cronbach Alpha is greater than 0.6, then the instrument of this study is said to be Reliable.

4.3. Multicollinearity test

Based on the calculation results using SPSS 25, there was no problem in the multicollinearity test between the variables used. The explanation can be seen in the table below.

| Table 4. Multicollinearity Coefficients |
|----------------------------------------|
| Model | Unstandardized Coefficients | Standardized Coefficients | t | Sig. | Collinearity Statistics |
|-------|-----------------------------|---------------------------|---|------|-------------------------|
|       | B                            | Std. Error                | Beta |      | Tolerance | VIF         |
| 1     | (Constant)                  | 11.732                    | 2.104 |      | 5.577        | .000        |
|       | Total_X1_product innovation | -0.037                    | 0.079 | -0.036 | -.465        | .643        | .941        | 1.063     |
|       | Total_X2_price              | 0.870                     | 0.097 | 0.687 | 8.948        | .000        | .941        | 1.063     |

4.4. Determination coefficient test

Table 5. Determination coefficient test

| Model Summary |
|---------------|
| Model | R    | R Square | Adjusted R Square | Std. An error of the Estimate |
|-------|------|----------|-------------------|-------------------------------|
| 1     | .679 | .462     | .451              | 1.664                         |
Based on the results of the determination coefficient test obtained R Square of 0.462. This means that there is a 46.2% effect of product innovation variables (X1) and price variables (X2) on Purchase Decision (Y) variables, and a 53.8% influence by other variables not studied in this study.

4.5. Conformity Test (F test)

Based on Table 6, Conformity Test (test F) uses F statistical test with research model $Y = \alpha + \beta_1X_1 + \beta_2X_2 + e$ using SPSS 25 application in windows application. The F test result was obtained by the F count at 17,907 with a significance level of 0.000. Since the value of significance obtained is 0.000 < 0.05, it can be concluded that this study has met the F test with an F value of 41,583.

| Table 6. Goodness of fit test results |
|--------------------------------------|
| **ANOVA**                             |
| Model | Sum of Squares | df | Mean Square | F | Sig. |
|-------|----------------|----|-------------|---|------|
| 1     | 230.339        | 2  | 115.169     | 41.583 | .000b |
| Residual | 268.651   | 97 | 2.770       |     |      |
| Total | 498.990        | 99 |             |     |      |

Based on the calculation of the questionnaire using SPSS 25, the test results of multiple regression showed results according to the table below:

| Table 7. Multiple regression analysis Coefficients |
|---------------------------------------------------|
| Model | Unstandardized Coefficients | Standardized Coefficients | t   |
|-------|----------------------------|---------------------------|-----|
|       | B | Std. Error | Beta |     |
| 1     |   |           |      |     |
| (Constant) | 11.732 | 2.104 |     | 5.577 |
| Total_X1_product innovation | -.037 | .079 | -.036 | -.465 |
| Total_X2_price | .870 | .097 | .687 | 8.948 |

As a result of the calculation, the Constant value (a) is 11.732 and the Value (X1) of Product Innovation is -.037 and the Discount value (X2) is 0.870. The regression equation formula is obtained as follows:

$$Y = 11.732 - 0.037X_1 + 0.870X_2$$

This means that the Product Innovation variable (X1) negatively affects the Purchase Decision variable (Y) also has an insignificant impact because the significant value is less than that ($< \alpha = 0.05$ and the Price Variable on the other hand (X2) has a positive effect of 0.870. Influences customer purchasing decisions (Y).

4.7. Kolmogorov-Smirnov normality test

The normality test in this study used Kolmogorov-Smirnov Normality to determine whether the data in the study were distributed normally.

| Table 8. Kolmogorov-Smirnov normality test results |
In the table above, Kolmogorov-Smirnov normality test results have a significance score of 0.200 > 0.05. This indicates that the data is normal for the distribution process.

4.8. Discussion

1. F test results show that the score is 41,583 > F table 3,090, which means two independent variables, Product Innovation (X1) and Price (X2) has a significant effect on Purchase Decision (Y).
2. From the results of regression tests previously conducted, obtained the following equations:

\[ Y = 11,732 - 0.037X1 + 0.870X2 \]

Meaning

1. From F test result shows that Purchase Decision (Y) Shopee users will be 41,583 whose number has not been affected by other variables of Product Innovation (X1) and Price (X2). However, this number is affected by other variables outside the model.
2. Variable Product Innovation (X1) has an impact on Shopee's Purchase Decision (Y) – 3.7% and insignificantly affects purchasing decision making.
3. Price (X2) varies having a negative influence of 87% on purchasing decisions (Y), Shopee Users. This shows us that Shopee app users in Bandung have a price-oriented perspective.

5. Conclusion

1. Test F test result shows that two independent variables Product Innovation (X1) and Variable Price (X2) have a significant influence simultaneously on Y (Price Decision).
2. Multiple Regression Test results have been conducted, showing us that the variable Product Innovation (X1) has a negative and insignificant impact.
3. Variable Price (X2) has a positive impact on the variable Purchase Decision (Y) Shopee Users in Bandung.

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