

**The Effect of Product Attributes on Purchasing Decision for Palm Oil Derivatives (Case study: Chocolate Appolo at Bina Swalayan Medan)**

Pengaruh Atribut Produk Terhadap Keputusan Pembelian Produk Turunan Kelapa Sawit (Studi kasus : Cokelat Appolo di Bina Swalayan Medan)

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**ABSTRACT**

*The objective of this study is to analyze the effects of product quality, price, brand image and packaging can affect the purchasing decision for palm oil derivatives. This study conducted on the consumers of Bina Swalayan in Jalan Setia Budi Medan City. This study uses a primary source taken from 100 respondents by answering questionnaire. The result of this study determines that purchasing decision for palm oil derivatives is affected positively and significantly by product quality, price, brand image and packaging. The result of this study determine that the coefficient of determination (R-Square) obtained of 0,528, thus it can be determined that effect of product quality, product quality, price, brand image and packaging on purchasing decision for palm oil derivatives 52.8%, while remaining 47.2% is influenced by other factors.*

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**Keyword(s): Product Quality, Brand Image, Packaging and Purchasing Decision.**

**ABSTRAK**

Penelitian ini bertujuan untuk menganalisis kualitas produk, harga, citra merek, serta kemasan yang dapat mempengaruhi keputusan pembelian produk turunan kelapa sawit. Penelitian ini dilakukan pada konsumen Bina Swalayan Jalan Setia Budi Kota Medan. Penelitian ini menggunakan data primer yang diambil dari 100 responden, melalui pengisian kuesioner. Hasil penelitian menunjukkan bahwa keputusan pembelian produk turunan kelapa sawit dipengaruhi oleh kualitas produk, citra merek, harga dan kemasan dan keseluruhan pengaruh adalah positif serta signifikan. Hasil penelitian juga menunjukkan nilai koefisien determinasi yang diperoleh (R-Square) adalah 0,528 maka diketahui bahwa pengaruh kualitas produk, citra merek, harga, dan kemasan terhadap keputusan pembelian produk turunan kelapa sawit sebesar 52,8%. Sisanya dipengaruhi faktor lain diluar yang diteliti.

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**Kata Kunci: Kualitas Produk, Citra Merek, Harga, Kemasan dan Keputusan Pembelian.**

## INTRODUCTION

The development of Indonesian industrial sector is growing rapidly, this has led the level of competition become more massive and tighter. This obviously is due to the increasingly varied patterns of consumer demand as parties who have different levels of need. The impact of development for this industrial sector has created some innovation in marketing and product attributes increasingly important and urgent in dealing with competitors.

Chocolate producers are one of some industrial sector that is experiencing rapid development in this intense competition. Industry players have to apply some precise strategies to market their products and meet consumer needs. Meanwhile, there is one of some food industries that are still developing, PT. Interfood Sukses Jasindo, which try to create chocolate products from palm oil derivatives as one of the raw materials, namely Apollo Chocolate.

Modifying the marketing mix is an innovative breakthrough in marketing which of course is urgently needed by producers. Goods, location, packaging and prices defined as concepts in the marketing mix (Kotler and Armstrong, 2016). Product innovation as part of the marketing mix is very important to do, so that it can influence and attract consumers to deal in purchasing.

Today, competition in the field of chocolate producers is not only based on the price that consumers wants, but is based on things related to these goods. Product attributes which consist of product quality, brand image, price, and packaging considered as product components that play important function in influencing consumer purchasing decision for various products or services offered by the producers.

Product attributes is defined as part of the nature of the product that ensure those

products are able to meet the wants and needs of product buyers (Kotler, 2009). Therefore product attributes should be the focus of attention, because product attributes can have an influence on consumer interest in making purchases.

With the presence of various chocolate brands, it certainly has an impact on the intense competition of producers to get as many consumers as possible. Along with the competition among these producers, chocolate is thus processed and made in some variety, both in terms of packaging, materials, types and sizes and so on. In general, chocolate producers produce their products almost the same or similar, but Apollo chocolate manufacturer differentiate their products and this is an advantage for Apollo products compared to similar products.

Consumers at Bina Swalayan Medan in 2019 are consumers who are considered "likely to be potential" in the Apollo chocolate product, said to be "likely to be potential" because they in general prefer Apollo chocolate products compared to other similar products arranged on the same shelf. In addition, the researcher also observed that consumers from Bina Swalayan Medan in 2019 have the highest number compared to other periods, namely 2015, 2016, 2017, and 2020, thus the researcher chose and determined that this study was conducted in 2019 which considered to be able represent if those consumers for 2019 used as the population in the study.

Based on those background and observation above, then the researcher choose to analyze the product attribute as an independent variable, which consisting of brand image, product quality, price and packaging can give significant effect on consumers in order to carry out the

purchasing decision for palm oil derivatives. Therefore, in order to find out that product attributes contribute to the decision to purchase oil palm derivative products, thus researcher use multiple linear regression model or what is often referred to as model of regression analysis.

**METHODS**

This study was conducted at Bina Swalayan on Jalan Setia Budi Medan. The research was started from March 2020 to April 2020.

Primary data obtained are in the form of questionnaires and interviews. Sample size in this study was determined by the formula proposed by Slovin, where the number of visitors for Bina Swalayan in Medan City from January 2019 to December 2019 was approximately 28.515 visitors. Sample size in this study is 100 respondents.

Collecting data in this study use interviews and questionnaires. This study uses a questionnaire instrument with a Likert scale measurement. The validity test is used as an instrument testing technique, by using the Pearson correlation. The reliability test used Alpha Cronbach coefficient.

The normality test, multicollinearity test, and heteroscedasticity test were also carried out in this study as a condition for conducting the regression test. The method used in evaluating the regression of the independent variables is multiple linear regression analysis and is formulated as follows:

$$y = a + b_1 x_1 + b_2 x_2 + b_3 x_3 + b_4 x_4 + e$$

In proving the hypothesis, the significance test, partial test, simultaneous test and determination test are carried out.

**RESULTS AND DISCUSSION**

**Test validity**

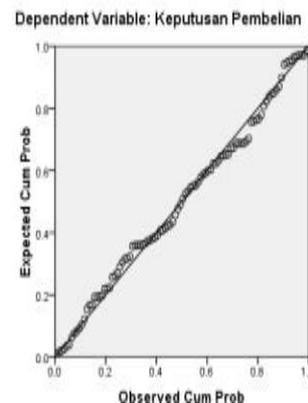
After the Pearson correlation test was carried out as a way of testing the validity, it was stated that all indicators in all of these variables were "valid", so they were eligible to be used as measurement instruments.

It can be known that the results of instrument test indicate that the values of validity for each indicator > 30, thus all indicators for each variable in this study stated as "valid" or it can be used as a measurement instrument. In addition, in the reliability test, it can be known that the value of reliability for all indicators > 60, thus all indicators for each variable used in this study stated as "reliable" or it can be used as a measurement instrument.

**Classical Assumption Test Results**

**a. The results of the normality test**

Normal P-P Plot of Regression Standardized Residual



**Figure 1. Result of Normality**

Figure 1 shows the results of the normality test for product quality, brand image, price, and packaging that are normally distributed, then the regression testing model can be continued.

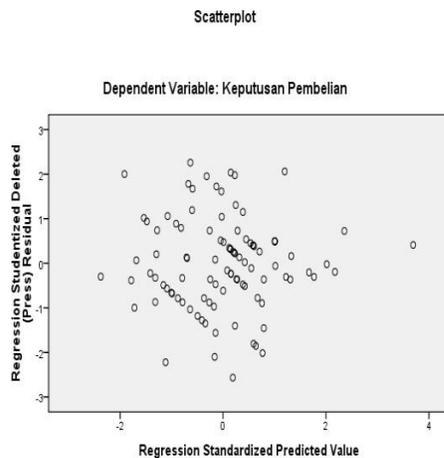
**b. Results of the multicollinearity test**

**Table 1 Multicollinearity Coefficients<sup>a</sup>**

Collinearity Statistics		
Tolerance	VIF	
.559	1.787	
.452	2.212	
.826	1.210	
.768	1.302	

Based on table 1 above shows that the results of multicollinearity test for the independent variables, namely brand image, product quality, price, and packaging, it indicated that all the values of VIF for four variables are less than 4 (<4), so that in this test the independent variable is not multicollinearity.

**c. Result of Heteroscedasticity test**



**Figure 2. Result of Heteroscedasticity**

Figure 2 shows that the distribution spread randomly and does not form a certain pattern or (plots), while the distribution appears to be below the number 0 and Y axis, then based on the results of the heteroscedasticity test in this study, there is no heteroscedasticity in the variables, therefore the regression test can be continued.

**Results of Multiple Linear Regression Testing**

The regression coefficient standardized by the beta value is in table 2 below:

**Table 2. Regression Coefficient Results Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
1 (Constant)	1.723	2.001	
Quality Product	.207	.081	.240
Brand Image	.159	.101	.166
Price	.276	.095	.227
Packaging	.398	.087	.368

Source: processed data (2020)

Based on results of Regression indicated that:

- a = 1,723
- b<sub>1</sub> = 0,207
- b<sub>2</sub> = 0,159
- b<sub>3</sub> = 0,276
- b<sub>4</sub> = 0,398

Thus, the regression coefficient equation for the four predictors, namely product quality, brand image, price and packaging is as follows:

$$Y = 1,723 + 0,207 X_1 + 0,159 X_2 + 0,276 X_3 + 0,398 X_4$$

Based on the equation have been formulated above, it shows that product quality, brand image, price and packaging have a bi-coefficient positive, and this means that the product quality, brand image, price and packaging increases, then it will also result in an increase in purchasing decision to consumers of Apollo chocolates, where the increase is unidirectional.

**Hypothesis Testing**

**a. Results of Hypothesis Testing**

Testing of product attributes consisting of brand image, product quality,

price and packaging on purchasing decision variables can be shown in the following table:

**Table 3. Results of t-test**

t	Sig.
.861	.392
2.542	.013
1.979	.018
2.921	.004
4.579	.000

Source: processed data (2020)

**Product Quality on Purchasing Decision**

Based on the test results in Table 3 shows that the value of  $t_{count} > t_{table}$  or (2.542 > 1.660), and significant  $t < a = 0.05$ , which means that the variable of the product quality in this study shows its effect on purchasing decision.

**Brand Image on Purchasing Decision**

Based on the test results in Table 3 shows that the value of  $t_{count} > t_{table}$  or (1.979 > 1.660), and significant  $t < a = 0.05$ , which means that the variable of the brand image in this study shows its effect on purchasing decision..

**Price on Purchasing Decision**

Based on the test results in Table 3 shows that the value of  $t_{count} > t_{table}$  or (2.921 > 1.660), and significant  $t < a = 0.05$ , which means that the variable of the price in this study shows its effect on purchasing decision.

**Packaging on Purchasing Decision**

Based on the test results in Table 3 shows that the value of  $t_{count} > t_{table}$  or (4.579 > 1.660), and significant  $t < a = 0.05$ , which means that the variable of the packaging in this study shows its effect on purchasing decision.

**Product Quality, Brand Image, Price and Packaging on Purchase Decision**

**Table 4. Results of F-test**

ANOVA<sup>b</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	370.584	4	92.646	26.554	.000 <sup>a</sup>
Residual	331.456	95	3.489		
Total	702.040	99			

Source: processed data (2020)

Based on the test results in Table 4 shows that the value of  $F_{count} > F_{table}$  or (26.554 > 2.70), and significant  $F < a = 0.05$ , which means that the variables of brand image, product quality, price, packaging in this study contributed simultaneously on purchasing decision.

**b. Coefficient of Determination**

**Table 5. Results of Coefficient of Determination**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.727 <sup>a</sup>	.528	.508	1.86789

Source: processed data (2020)

The value of R is 0.727. It means that both variables, namely independent and dependent variables are influential. It is known that the influence of the independent variables consisting of brand image, price, product quality, and packaging has an effect of 52.8% on purchasing decision.

**DISCUSSIONS**

The results of the test prove that all independent variables consisting of brand image, price, product quality, and packaging contribute to an influence on purchasing decision and this can be explained as follows:

**1. Product Quality on Purchasing Decision**

Product quality contributes to an influence on increasing Purchasing Decision of Appolo Chocolate at Bina Swalayan Medan, based on the results based on the results of  $t_{count} > t_{table}$  or  $(2.542 > 1.660)$  and significant  $t < a = 0.05$ .

The results of this study empower the study conducted by Purwati and Rohmawati (2012) in which explain that product quality has a strong correlation on purchasing decision making. Producers play an important role in carrying out the process of improving the product quality to be better direction, thus producers can maintain consumers and increase the number of consumers. This study also supports the results of study conducted by Setiaji (Habibah and Sumiati, 2016) which shows that the product quality is part of the marketing mix that contributes to an influence on purchasing decision.

Purchasing decision is defined as a process that arise from the consumers when those consumers decide to make a purchase for a product or service, and it will lead a judgment by referring to the question of what they will buy, how good the quality of those products or services to be purchased, where they will buy it and how consumers can buy.

Every consumer deals in purchasing, obviously, based on their needs and desire. Therefore, companies must be continuously conducting research and development to products and quality of these products, then all the needs of consumers for the products offered by producers can be met. The objective of this research and product development is so that producers can maintain consumers who are very choosy about the products they want to buy recently. Manufacturers must always remember that the quality of the products they offer will be assessed by consumers. If the quality of

products is bad, then consumers will immediately switch to other products.

## **2. Brand Image on Purchasing Decision**

Brand Image contributes to an influence on increasing Purchasing Decision of Appolo Chocolate at Bina Swalayan Medan, based on the results of  $t_{count} > t_{table}$  or  $(1979 > 1.660)$  and significant  $t < a = 0.05$ .

The result of this study empower the study has been carried out by Krisna Bayu (2016) in which explains that the brand image has a positive and significant effect partially on purchasing decision, which means that the presence of a brand image will increase consumer purchasing decision.

A good brand image will have an effect on consumers to dealing in purchasing decision for products and services, so that producers must continue to involve brand image as analytical factors in conducting further research and product development that will be offered to consumers.

## **3. Price on Purchasing Decision**

Price contributes to an influence on increasing Purchasing Decision of Appolo Chocolate at Bina Swalayan Medan, based on the results of  $t_{count} > t_{table}$  or  $(2,921 > 1.660)$  and significant  $t < a = 0.05$ .

The result of this study empowers the study has been carried out Refika Rahmadani (2018), the result of this study indicate that price has an effect on purchasing decision partially. This means if the price is in accordance with consumer desires, the purchasing decision will increase in the company

Price is defined as the amount of money and adding a part of the product if possible, is what is needed to get a combination of products and services (Swastha and Irawan, 2012). Price is defined as a medium of exchange that can provide a benefit value generated by certain services or goods for a person, the greater the value

of benefits that consumers receive from certain products or services, the greater the exchange value of goods and services that he or she relays for getting the benefit value.

Price is often considered as an indicator for having goods or services when viewed from a consumer's point of view, prices are linked to the value of the perceived benefits of those products or services.

In determining the value of goods or services, consumers will compare to other goods or services at the same price. Sudharto (2017) states that consumers will expect those prices matching the quality to the exchange rate they spend.

#### 4. Packaging on Purchasing Decision

Packaging contributes to an influence on increasing Purchasing Decision of Appolo Chocolate at Bina Swalayan Medan, based on the results of  $t_{count} > t_{table}$  OR (4,579 > 1.660) and significant  $t < a = 0.05$

The result of this study empowers the study had been conducted by Didit Darmawan (2017) which concluded that packaging contribute a positive and significant effect on purchasing decision partially. This means that an attractive packaging will increase purchasing decision.

Nowadays packaging is considered as one of the most important thing for communication marketing. Packaging management system requires more detailed analysis of the elements and the impact of these elements on consumer purchasing behavior. Packaging functioned as a protector as well as the identity of a product and allows it to improve the value of a product. Buyers consider the structural packaging to ensure that the hydroponic vegetable products they purchase are well protected. Meanwhile, according to study from Wells, Farley and Armstrong (2007), it is explained that packaging plays an

important role in helping and dissimilating consumers to decide products as a type of similar product. So that the packaging can attract the integrity of consumer purchases

#### Conclusion

The conclusion of this study shows that all product attributes consisting of product quality, brand image, price and packaging contribute an effect on consumers to make purchasing decision on palm oil derivative products, namely Apollo chocolate. The value of R-Square is 0.528, it is known that the influence of product quality, brand image, price, and packaging on purchasing decision is 52.8%, while remaining 47.2 % is influenced by other factors.

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