

THE INFLUENCE OF PRODUCT QUALITY AND PRICE TOWARD PRODUCT PURCHASE DECISION OF LIP CREAM PIXY TO MANAGEMENT BUSINESS STUDENTS IN POLITEKNIK NEGERI BATAM

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Abstract - This research aims to determine the influence of product quality and price toward product purchase decision of Lip Cream Pixy to management business students in Politeknik Negeri Batam. This research was conducted in Politeknik Negeri Batam and the populations in this study were all students of Business Management of State Polytechnic of Batam. Samples were taken by purposive sampling technique with a total sample of 95 people. Data collection techniques used is questionnaires and tested using multiple linear regression analysis techniques. The results of this study indicate that; 1) Product quality has a significant influence on the decision to purchase Pixy Lip Cream products, 2) Price has a significant influence on the decision to purchase Pixy Lip Cream products, 3) Product quality and price is simultaneously have a significant influence on the decision to purchase Pixy Lip Cream products.

Keywords: Product Quality, Price, Purchasing Decision.

I. INTRODUCTION

1.1 Background

In addition to product quality, prices can be interpreted simply as the amount of money or other aspects that contain certain uses needed to obtain a product [1]. National Cosmetic Industry whose development in the cosmetics trading business has become one of the fastest growing trades in Indonesia. This can be seen from the growth of the national cosmetics industry which rose by 20% or four times the national economic growth in 2017 [2].

The following are the top brand for teen's tables of lipsticks that are often used by young people in 2017-2018 [3] [4].

From table 1 below, it can be seen that lip cream Pixy provides a quite progressive competition progress and is able to defeat the Maybelline brand to occupy the top brand. Pixy brand cosmetics in the lipstick category have an index that

increased in 2018. This makes researcher wanted to examine the factors that influence consumer purchasing decisions on lip cream pixy products, especially in terms of price and product quality. Pixy Lip Cream is one of Pixy's Best Seller products released in 2017.

TABLE 1. TOP BRAND LIPSTICK FOR TEENS IN 2017-2018

MEREK	Tahun 2017		MEREK	Tahun 2018	
	TBI	TOP		TBI	TOP
Wardah	21.3%	TOP	Wardah	29.4%	TOP
Maybelline	14.2%	TOP	Pixy	14.9%	TOP
Pixy	9.8%		Red-A	10.1%	TOP
Red-A	9.5%		Maybelline	8.9%	
Revlon	4.8%		Puteri	3.5%	
Oriflame	4.7%				
Puteri	4.4%				

Source: <http://www.topbrand-award.com>

II. LITERATURE REVIEW

2.1 Theoretical Framework

Marketing

Marketing is managing profitable relationships with customers. Management includes managing the process by which companies create value and create strong relationships with customers in order to capture the value of the customer in return[5].

Promotion Mix

The marketing mix is a collection of controlled tactical marketing tools that the company combines to produce the desired response in the target market. According to Kotler and Keller (2012), the marketing mix includes 4 elements, i.e.: Product, Price, Place, and Promotion (4P) [5].

Consumer behavior

Consumer behavior is the study of how individuals, groups, and organizations choose, buy, use, and how goods, services, ideas, or experiences to satisfy their needs and desires [6].

Quality Product

Product quality is the totality of features and characteristics of a product or service that depends on its ability to satisfy expressed or implied needs [6].

Price

Price is the amount of money that is billed for a product and service or the amount of value that is exchanged by customers to benefit from owning or using a product or service [5].

Purchasing decision

Purchasing decisions can be defined as step used by consumers to buy goods and services [8].

2.2 Conceptual Framework

Based on the theoretical framework and previous research, the conceptual framework can be drawn up in the following scheme:

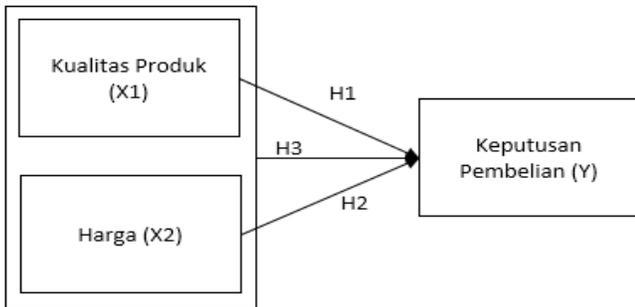


Figure 1 Conceptual Framework
Source: Research developed, 2019

2.3 Hypothesis

- H1: Product quality has a significant influence toward product purchase decision of Lip Cream Pixy.
- H2: Price has a significant influence toward product purchase decision of Lip Cream Pixy.
- H3: Quality Product and Price simultaneously has a significant influence toward product purchase decision of Lip Cream Pixy.

III. METHODS OF RESEARCH

3.1 Method of Research or Research Design

This research is a quantitative research because the research data is based on the data that can be calculated and from the numbers obtained will be analyzed further to determine whether or not the influence of quality product and price toward product purchase decision [6]. Data collection technique in this research is by distributing questionnaires.

3.2 Population and Sample

The populations in this study were 1.872 people who are active students of Politeknik Negeri Batam. Sampling in this study used the Slovin formula, i.e:

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{1.872}{1 + 1.872 \times 0,01^2} = 94,929$$

Information:

n: Sample Size

N: Population Size

e: maximum errors that may be experienced, in this case used = 10% (0,01)

From the explanations above, there are 95 people that can be used as respondents. The sampling technique used in this research was purposive sampling, namely the technique of determining samples with certain considerations. In this research, active students of management business Politeknik Negeri Batam will be the samples.

3.3 Operational Variables

TABLE II. OPERATIONAL DEFINITION OF THE RESEARCH VARIABLE

Variable	Definition	Measurement	Scale Indicator
Quality Product (X1)	Product quality is the ability of a product to carry out its functions, including durability, reliability, accuracy, ease of operation and repairs and other valuable attributes [6]	1. Performance 2. Features 3. Reliability 4. Durability 5. Aesthetic 6. Perceived Quality	Likert
Price (X2)	Price is namely the amount of money that is billed for a product or service, or the amount of value that is exchanged by customers to benefit from owning or using a product or service [6].	1. Price affordability 2. Price compatability with product quality 3. Price compatability with benefits 4. Price competitiveness	Likert
Purchase Decision (Y)	Purchasing decision behavior refers to final purchasing decision of consumers, both individuals and households who buy goods and services for personal consumers [6].	1. Introduction to the Problem 2. Alternative Evaluation 3. Purchasing decisions 4. Behavior after using the Product	Likert

3.4 Validity and Reliability

A questionnaire is said to be valid if the statement on the questionnaire is able to reveal something that will be measured by the questionnaire [6]. The testing technique most often used by researcher to test the validity or validity level is to use Bivariate Pearson correlation (Pearson Moment Products). If the results of $r_{table} < \text{Pearson's } r$, then it can be stated that the instrument is valid. Whereas, if $r_{table} > \text{Pearson's } r$ then it is invalid.

To find out the value of instrument reliability or test in the form of a questionnaire answer, Cronbach Alpha method with Cronbach alpha criteria > 0.60 if the results obtained from the test meet the criteria, it can be stated that the instrument used is reliable [4].

3.5 Data analysis method

a. Classic assumption test

1. Normality Test is a condition of normal distribution in independent and dependent variables.
2. Test of Autocorrelation that will be used to detect a situation where there is a correlation between the error variables.
3. Multicollinearity Test is a test used to test the existence of relationships between independent variables.
4. Heteroscedasticity test which can be used to detect the error variance condition one with another error different[6].

b. Test of Multiple Regression Analysis

This analysis technique is used for measuring instruments between the influence variables by two or more independent variables (X) with the dependent variable (Y) where the independent variables in this study are quality product and price while the dependent variable is a purchasing decision. Regression equation formulas are:

$$Y \hat{=} a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$$

c. Hypothesis testing

T test (partial test)

The t test or partial test is used to measure the level of influence between the independent variables on the dependent variable with the following formula:

$$t \text{ count} = (r \sqrt{(n-2)}) / \sqrt{(1-r^2)}$$

The F test or the simultaneous test is used to determine the effect of the independent variables simultaneously on the dependent variable which will be examined at a significant level of 5%. The F test formula or the simultaneous test is as follows:

$$F_{\text{count}} = (R^2 / k) / [(1-R^2) / (n-k-1)]$$

3.6 Time and Place of Research

The research will be conducted at Politeknik Negeri Batam on April.

IV. RESULTS AND DISCUSSION

4.1 Validity and Reliability Test Results

TABLE III. VALIDITY AND RELIABILITY TEST RESULTS

Variable	Item of Question	Table (n=93, α=0,05)	r (Pearson Correlations)	Status	Alpha Cronchbach Status
Kualitas Produk (X1)	1	0,2017	0,854	Valid	0,891 Reliable
	2		0,861	Valid	
	3		0,939	Valid	
	4		0,838	Valid	
	5		0,788	Valid	
	6		0,461	Valid	
Harga (X2)	1	0,2017	0,791	Valid	0,921 Reliable
	2		0,82	Valid	
	3		0,921	Valid	
	4		0,924	Valid	
	5		0,896	Valid	
Keputusan Pembelian (Y)	1	0,2017	0,752	Valid	0,710 Reliable
	2		0,883	Valid	
	3		0,858	Valid	
	4		0,348	Valid	

Source: Research developed, 2019

From the results of table 3, it can be seen the results of r table obtained from table r with the number n = 93 at a significant level of 0.05 (two-sided test) so that the number 0.2017 is obtained and declared valid. Thus, all statement items can be carried out the next step, namely reliability testing. From the table it is known that the variable value of product quality (X1) has a cronbach alpha coefficient of 0.891, the price variable (X2) is 0.921, and the purchase decision variable is 0.710 which shows results above 0.60. So, from the table it can be said that the measurements of each of the questionnaire variables are reliable so that the items in each of these variables are worthy of being used as a measuring instrument.

4.2 Normality Test Results

The normality test aims to determine whether each of the variables is normally distributed or not. The normality test of the data in this study uses the Kolmogorov-Smirnov Test. The standardized residual curve is said to be normal if the value of Kolmogrov - Smirnov $z < z$ table, or uses the Probability Sig (2 tailed) $> \alpha$, sig > 0.05 [10]. The test results are obtained in table 4 as follows:

TABLE IV. NORMALITY TEST RESULTS

Uji Kolmogrov-Smirnov	Standardized Residual
Kolmogorov-Smirnov Z	0,813
Sig. (2-tailed)	0,523

Source: Research developed, 2019

The test results show that the data has a significant level of 0.523. This shows that the level of significance produced is greater than 0.05. Thus the data analyzed in this study is normally distributed.

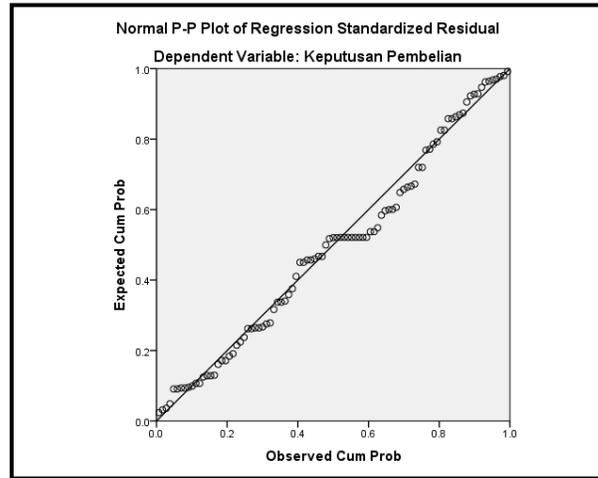


Figure 2 P-PLOT

Source: Research developed, 2019

From Figure 2, the normal P-P plot has the presence of points around the direction of the diagonal line, thus the data can be said to have a normal distribution of data in accordance with the basis for taking normality tests according to [7].

4.3 Multicollinearity Test Results

TABLE V. MULTICOLLINEARITY TEST RESULTS

Variabel	Collinearity Statistics	
	Tolerance	VIF
KualitasProduk (X1)	0,387	2.581
Harga (X2)	0,387	2.581

Source: Research developed, 2019

Based on table 5 above, it can be seen that the tolerance of product quality variable (X1) has a value of 0.387 whose value is greater than 0.1 and the VIF value is less than 10.0, which is 2.581. Price promotion variable (X2) has a tolerance value of 0.387 which means that the value is greater than 0.1 and the VIF value is less than 10.0, which is 2.581. So, from these data it can be concluded that the regression equation does not occur multicollinearity.

4.4 Heteroscedasticity Test Results

Heteroscedasticity test according to [7] is aimed to examine whether the regression model occur inequalities of residual variance from one observation to another observation. This study using the Glejser test. If the independent variable with the Unstandardized Residual has a significant value > 0.05, then it can be concluded that the regression model has no symptoms of heteroscedasticity.

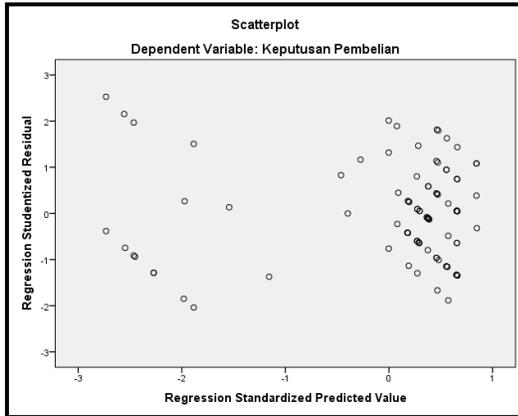


Figure 3 Heteroscedasticity test results
Source: Research developed, 2019

When viewed from the Scatterplot graph in Figure 3 above, there is a spread and irregular pattern, so that heteroscedasticity can be said to occur. Good data is data that does not have heteroscedasticity according to the basis of decision making according to [7].

TABLE VI. HETEROSCEDASTICITY RESULTS

Model	Unstandardized Coefficients ^a		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	2.283	.388		5.883	.000
	Kualitas Produk	-.017	.025	-.107	-.677	.500
	Harga	-.038	.025	-.243	-1.535	.128

a. Dependent Variable: Abs_Res
Sumber: Pengolahan Data SPSS 20, 2019)

Source: Research developed SPSS 20, 2019

Table 6 is also strengthened through the Glejser test that the two variables do not occur heteroscedasticity. The table above shows variable product quality has a significant value of 0.500 > 0.05. Then the price variable also has a significant value of 0.128 > 0.05. Seen the two variables above have a significant value > 0.05 according to the basis of decision making for heteroscedasticity tests according to [9].

4.5 Multiple Linear Regression Test Results

From the previous analysis it has been proven that the equation model proposed in this study has met the above requirements. The following are the results of multiple linear regression tests:

TABLE VII. MULTIPLE LINEAR REGRESSION RESULT

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	3.605	.669		5.386	.000
	Kualitas Produk	.256	.043	.456	5.927	.000
	Harga	.268	.042	.485	6.305	.000

a. Dependent Variable: Keputusan Pembelian

Source: Research developed, 2019

The regression equation that occurs can be expressed by using multiple linear regression formulas as follows:

$$Y' = 3,605 + 0,256 (X_1) + 0,268 (X_2)$$

Some things that can be known from the equation are as follows:

1. Constant of 3.605 means if the Product Quality variable (X1) and Price (X2) is 0, then the Purchase Decision (Y) value is 3.605.
2. Product Quality Variables 0.256 (X1) and positive value, meaning that if there is an increase in service quality variables where other factors are constant, it will be able to increase consumer decisions by 0.387. This means that the better the quality of the product, the higher the purchase decision (Y) on Pixy Lip Cream.
3. Price Variable (X2) has a regression coefficient of 0.268 and is positive, meaning that if there is an increase in the price variable where other factors are constant it will be able to increase consumer decisions by 0.268, meaning the better the price given, the higher the purchase decision on Lip Cream Pixy.

4.6 Hypothesis Test

1. T Test (Partial)

The T test has the purpose of confirming the hypothesis separately. According to Ghazali (2012) this T test can be seen from the magnitude of the value compared to the significance level $\alpha = 5\%$. To find the value of table can be searched using the degree of freedom formula as follows:

$$df = 95 - 2$$

$$df = 93 \text{ so that the ttable value is } 1.986.$$

The results of data processing are known where $t_{hitung} > t_{table}$ 1.986 and the value of Sig is 0.000 < 0.05. It can be concluded that the product quality variable has a significant influence on the decision to purchase Pixy Lip Cream products. And the price variable has a significant influence on the purchase decision of Lip Cream Pixy products with the results of the calculation of $t_{count} > t_{table}$ 1.986 with a significant value level of 0.000 < 0.05.

2. F Test (Simultaneous)

From the results of the simultaneous test it can be concluded that the value of $F_{count} > F_{table}$ is known by the F_{count} data of 172.120 and F_{table} of 3.10 which means the product quality and price variables have a significant influence on the decision to purchase Pixy Lip Cream products.

3. Determination Coefficient Test (R^2)

Based on the research that has been done, it can be seen that the coefficient of determination (R^2) is 0.508. To find out the percentage of the relationship between product quality and price, the calculation is $0.508 \times 100\% = 50.8\%$. So the percentage for the coefficient of determination (R^2) is 50.8%, while 49.2% is influenced by other variables not discussed in this study such as advertising, promotion, and others.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

Based on the results of this study, it can be concluded that:

1. Partial hypothesis testing (t test) shows that product quality variables significantly influence the decision to purchase Pixy Lip Cream products.
2. Partial hypothesis testing (t test) shows that the price variable significantly influences the decision to purchase Pixy Lip Cream products.
3. Simultaneous hypothesis testing (F test) shows that the product quality and price variables together significantly influence the decision to purchase Pixy Lip Cream products.

5.2 Recommendation

Based on the results of the research conducted by the researchers, the suggestions that the researchers convey are:

1. The company can redesign the packaging of Lip Cream Pixy products to make it more attractive to the customers' desire to make purchasing decisions on Pixy Lip Cream.
2. Establishing prices that are in accordance with the quality they have
3. For further researchers, if you want to examine the product quality program and price for purchasing decisions of Lip Cream Pixy products, it is recommended that research be developed to other variables that are thought to influence purchasing decisions, such as product promotion or design.

5.3 Limitations

The limitations in this study are as follows:

1. In this study only analyze three independent variables namely product quality and price. While in marketing theory there are many factors that can influence purchasing decisions.
2. The sample in this study is very limited, which is only 95 students of Batam State Polytechnic Business Management who have used Pixy Lip Cream at least 2 times. It would be better if the samples taken included all consumers in the Batam State Polytechnic as a comparison, so that the results of the study could be generalized in a wider scope.

ACKNOWLEDGEMENTS

The author would like to thank Ibu Andi Erna Mulyana as a lecturer that spares her time to guide the author during the research process. The author would also thank the beloved friends that have been supporting throughout research process. The author realizes that this research is not perfect, both in terms of material and presentation. For this reason, constructive suggestions and criticisms are highly expected in improving this research. Hopefully this thesis can provide useful things and as a reference for readers and especially writers.

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