



# INFLUENCE OF PRODUCT QUALITY, PRICING AND DISTRIBUTION CHANNELS ON CONSUMER PURCHASE DECISIONS AT PT. METRO ARTHA PRAKARSA

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**ABSTRACT** (9 pt, bold, at most 200 words) (one blank single space line, 10 point font)

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Product quality, pricing and distribution channels are elements that can influence purchasing decisions. This study aims to determine and analyze the effect of product quality, pricing and distribution channels on consumer purchasing decisions at PT. Metro Artha Prakarsa. This type of research is explanatory research. The entire population is the average daily consumer who makes repeat purchases at the company totaling 189 consumers. Due to the large number of populations, the sampling technique will be reduced by using the Slovin formula for an error tolerance level of 5% so that 128 respondents are obtained in the study which will be divided into questionnaires as measured by a Likert scale. Data analysis used multiple linear regression analysis and coefficient of determination as well as simultaneous and partial tests. The results showed that either partially or simultaneously, product quality, pricing, and distribution channels had a positive and significant impact on consumer purchasing decisions at PT. Metro Artha Prakarsa. Based on the results of this study, the implications for management are to make more improvements to product quality so that it can be better, provide attractive price offers and maximize distribution.

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## 1. Introduction

PT. Metro Artha Prakarsa is a company engaged in the sale of pharmaceuticals or drugs. Currently the company is considered to be experiencing a decline in sales where this is because consumer purchasing decisions on the products offered by the company have decreased. The decline began when the marketing stimuli carried out by the company could not attract consumers' decisions to buy products from the company. What's more, currently the competition is very tight which causes consumers to have lots of choices of places to make purchases where each company will of course implement its best strategy in attracting consumers. Consumers who feel that there are advantages provided by other companies, consumers will begin to switch and move to make purchases at other companies. The quality of the products offered is considered poor where some products are damaged during delivery, making consumers feel disappointed and have to return goods. As for some of the products sent are considered to have approached the expiration period so of course these products cannot be stored for long by consumers. Moreover, when consumers receive the product, the product packaging often looks damaged so that consumers do not want to accept the order.

The price is also suspected of influencing the decline in purchasing decisions where the price set by the company is considered higher than other companies so that the price is considered unaffordable by consumers' purchasing power and in the end they decide to make a purchase at another company.

Furthermore, what is also suspected to have an influence on the decline is the distribution channel where in this case, the company is considered quite slow in delivering products to its consumers, thus making consumers often feel disappointed. The reasons that are often conveyed to consumers are because cars often break down and sometimes there are weather factors that can hinder the process of delivering the goods.



**TABLE 1.**  
Operational Definition and Measurement of Variables

Variable	Definition	Indicator	Measurement
Product Quality (X <sub>1</sub> )	Product Quality is the overall consumer evaluation of the superior performance of a product or service.	1. Performance 2. Employee Interaction 3. Reliability 4. Durability 5. Aesthetics	Skala Likert
Pricing (X <sub>2</sub> )	Damiati, dkk (2017:184) Pricing is one of the most important decisions in marketing.	Damiati, dkk (2017:185) 1. Consumer purchasing power 2. Willingness of consumers to buy 3. Position the product in the customer's lifestyle 4. Product benefits for consumers	Skala Likert
Distribution Channel (X <sub>3</sub> )	Tjiptono dan Diana (2016:218) A distribution channel is a set of organizational participants who perform all the functions needed to get a product or service from the seller to the final buyer.	Tjiptono dan Diana (2016:226) 1. Distribution fee 2. Market coverage 3. Customer service 4. Communication with market and control of distribution channel network 5. Secondary factors	Skala Likert
Purchase Decision (Y)	Tjiptono dan Chandra (2020:520) Purchasing decisions are activities in selecting the most appropriate alternative behavior in buying.	Tjiptono dan Chandra (2020:528) 1. Recognition of Problems/Needs and Wants 2. Search Various Information 3. Evaluation of Alternative Product Brands 4. Choice of Product Brands to Purchase (Buying Decisions) 5. Post Purchase Evaluation	Skala Likert
	Firmansyah (2018:27)	Firmansyah (2019:85)	

## 2. Method

### 2.1 Location and Time

The research was conducted at PT. Metro Artha Prakarsa Jalan Mesjid Taufiq No. 120 B. The research time is planned from February 2022 to June 2022.

### 2.2 Population and Sample

The population in this study is the average daily consumer who makes repeated purchases at the company totaling 189 consumers. The sampling technique is to use the Slovin formula with a 95% confidence level and an error tolerance of 5% where the number of samples in this study is 128 consumers.

### 2.3 Data Collection Method

Collecting data through a questionnaire is done by asking questions to parties related to the problem. To assess respondents' responses, the author uses the Likert scale which uses several question items to measure individual behavior by responding to 5 choice points on each question item.

### 2.4 Validity and Reliability Test

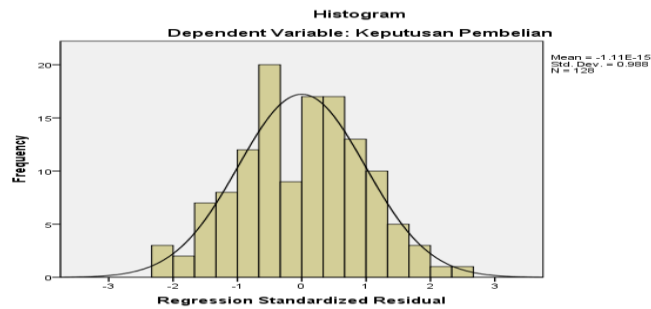
The data obtained needs to be tested for its accuracy and reliability so that the results of data processing can be more precise and accurate. Therefore, it is necessary to know how high the validity and reliability of the measuring instrument (instrument) used.

Based on the research, each variable of the questionnaire item that was tested for validity, all the questionnaires had met the valid criteria and were eligible to be used as a questionnaire in further research. While in reliability test, all variable questionnaire item is reliable and can be used as instrument.

## 3. Result and Discussion

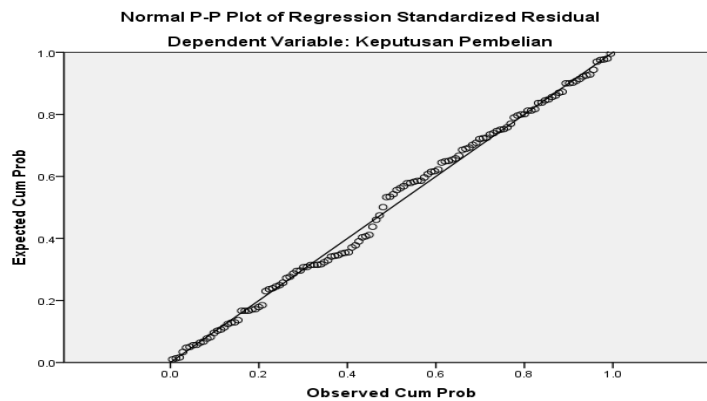
### 3.1 Normality Test

The residual normality test is used to test whether the residual value resulting from the regression is normally distributed or not. A good regression model is to have residuals that are normally distributed. There is some method to do the normality test such as histogram graphic, normal probability plot of regression graphic and one sample Kolmogorov Smirnov statistic.



**FIGURE 1**  
 Histogram Graphic

Based on the picture above, it can be seen that the line forming a bell, not going left or right. This shows that the data is normally distributed and meets the assumptions of normality.



**FIGURE 2**  
 Normal Probability Plot of Regression Graphic

Based on the picture above, it shows that the data (dots) spreads around the diagonal line and follows the diagonal line. So from this figure it is concluded that the regression model residuals are normally distributed.

**TABLE 2**  
 One-Sample Kolmogorov Smirnov Test

		Unstandardized Residual
N		128
Normal Parameters <sup>a,b</sup>	Mean	.0000000
	Std. Deviation	3.36484585
Most Extreme Differences	Absolute	.052
	Positive	.052
	Negative	-.049
Kolmogorov-Smirnov Z		.594
Asymp. Sig. (2-tailed)		.873

a. Test distribution is Normal.

b. Calculated from data.

Source: Research Result, 2022

Based on the table above, the results of the Kolmogorov-Smirnov normality test prove that the significant value is greater than 0.05, namely 0.873, it can be concluded that the data is classified as normally distributed.

### 3.2 Multicollinearity Test

Multicollinearity is a condition in the regression model where there is a perfect or near perfect correlation between independent variables where a good regression model should not have a perfect or nearly perfect correlation between the independent variables. The commonly used test method is to look at the

Tolerance and Variance Inflation Factor (VIF) values in the regression model where the VIF value is less than 10 and has a Tolerance value of more than 0.1.

**TABLE 3**  
Multicollinearity Test

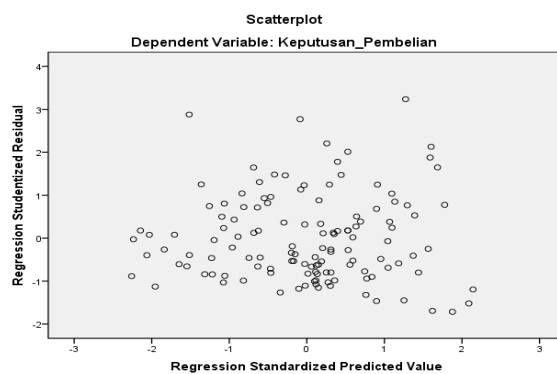
Model	Collinearity Statistics	
	Tolerance	VIF
1 (Constant)		
Product Quality	,566	1,767
Pricing	,889	1,125
Distribution Channel	,567	1,764

a. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

Based on the table above show that all the variables have a tolerance value more than 0.1 and VIF value less than 10 which can be concluded that there is no problem found in multicollinearity test.

**3.3 Heteroscedasticity Test**

Heteroscedasticity is a condition where in the regression model there is an inequality of variants from the residuals from one observation to another where a good regression model does not occur heteroscedasticity.



**FIGURE 3**  
Scatterplot Graphic

Based on the scatterplot graph presented, it can be seen that the dots spread randomly and do not form a clear pattern and are spread either above or below zero on the Y axis. This means that there is no heteroscedasticity in the regression model, so the regression model can be used to predict achievement based on the input of the independent variable.

The following is a glejser test which can be seen in the table below:

**TABLE 4**  
Glejser Test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.984	2.056		-.478	.633
Product Quality	.082	.048	.202	1.727	.087
Pricing	.032	.043	.070	.754	.452
Distribution Channel	-.002	.050	-.005	-.041	.967

a. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

Based on the table above, it can be seen that the significance value of the two variables is greater than 0.05 so that it can be stated that there is no problem with heteroscedasticity testing.

**3.4 Multiple Linear Regression Analysis**

Multiple regression analysis is an analysis to determine whether there is a significant influence between two or more independent variables on one independent variable.



**TABLE 5**  
Multiple Linear Regression Analysis Test

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	19.688	3.726	
	Product Quality	.475	.086	.431
	Pricing	-.240	.078	-.192
	Distribution Channel	.356	.091	.305

a. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

$$\text{Purchase Decision} = 19,688 + 0,479\text{Product Quality} - 0,240\text{Price} + 0,356\text{Distribution Channel} + e \quad (1)$$

Based on the above equation, then: Constant (a) = 19,688. This means that if the independent variables, namely product quality (X1), price (X2), and distribution channels (X3) are 0 then the purchase decision (Y) is 19.688. Where if there is an increase in product quality, there will be an increase in purchasing decisions of 0.475. Likewise with the price where if there is an increase in the price, the purchase decision will decrease by 0.240. If there is an increase in distribution channels, purchasing decisions will increase by 0.356.

### 3.5 Coefficient Determination

Analysis of determination or also called R Square symbolized by  $R^2$  is used to determine the magnitude of the influence of the independent variable (X) together on the dependent variable (Y) where the smaller the coefficient of determination, this means the effect of the independent variable (X) on the dependent variable (Y) is getting weaker. Conversely, if the coefficient of determination is closer to number 1, then the effect of the independent variable on the dependent variable is getting stronger. Thus, if coefficient determination is 0, this indicates that there is no percentage contribution of influence given by the independent variable to the dependent variable. However, if the coefficient of determination is 1, then there is a contribution that the independent variable gives to the dependent variable is perfect.

**TABLE 6**  
Coefficient Determination Test  
Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.756 <sup>a</sup>	.571	.561	3.405

a. Predictors: (Constant), Product Quality, Pricing, Distribution Channel  
b. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

Based on the table above, the value of the Adjusted R Square coefficient of determination is 0.561. This shows that the ability of the variables of product quality (X1), price (X2), and distribution channels (X3) to explain their influence on purchasing decisions (Y) is 56.1%. While the remaining 43.9% is the influence of other independent variables not examined in this study such as service quality variables, promotions, image, product completeness, consumer satisfaction, consumer loyalty, consumer behavior and other factors.

### 3.6 Simultaneous Hypothesis Test (F Test)

F test or regression coefficient test is used to determine whether simultaneously the independent variable has a significant effect on the dependent variable. In this case, to find out whether simultaneously the independent variable has a significant effect on the dependent variable or not. The test uses a significance level of 5%. The criteria for evaluating the hypothesis in this F test are:

$H_0$  Accepted if:  $F_{\text{count}} < F_{\text{table}}$ ,  $H_a$  Accepted if:  $F_{\text{count}} > F_{\text{table}}$

**TABLE 7**  
ANOVA Test

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1916.801	3	638.934	55.099	.000 <sup>a</sup>
	Residual	1437.918	124	11.596		
	Total	3354.719	127			

a. Predictors: (Constant), Product Quality, Pricing, Distribution Channel  
b. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

Based on the table above, it is found that the value of  $F_{\text{table}}$  (2.68) and significant = 5% (0.05), namely  $F_{\text{count}}$  (55.099) and sig.a (0.000a). This indicates that the results of the study accept  $H_1$  and reject  $H_0$ . Comparison between  $F_{\text{count}}$  and  $F_{\text{table}}$  can prove that simultaneously product quality, price, and distribution channel have a positive and significant effect on purchasing decisions.



### 3.7 Partially Hypothesis Test (t Test)

The t test or partial regression coefficient test is used to determine whether partially the independent variable has a significant effect on the dependent variable or not. In this case, to find out whether partially the independent variable has a significant effect on the dependent variable or not. The test uses a significance level of 0.05 and a two-sided test. The criteria for evaluating the hypothesis in this t test are:

$H_0$  Accepted if:  $t_{count} < t_{table}$

$H_a$  Accepted if:  $t_{count} > t_{table}$

**TABLE 8**  
Coefficient Test

	Model	t	Sig.
1	(Constant)	5.284	.000
	Product Quality	5.516	.000
	Pricing	-3.072	.003
	Distribution Channel	3.903	.000

a. Dependent Variable: Purchase Decision  
Source: Research Result, 2022

Based on the table above, it can be concluded that product quality, pricing and distribution channel partially have a positive and significant effect on Purchase Decision which can be seen at the  $t_{count}$  is greater than  $t_{table}$  (1,979) and the significant is less than 0,05.

## 4. Conclusion

The conclusions that researchers can draw from the results of this study are as follows: The results of the t test and F test state that either partially or simultaneously the variables of product quality, price, and distribution channels have a significant influence on purchasing decisions; The results show that the coefficient of determination of Adjusted R Square is 0.561. This shows that the ability of the variables of product quality (X1), price (X2), and distribution channels (X3) to explain their influence on purchasing decisions (Y) is 56.1%. While the remaining 43.9% is the influence of other independent variables not examined in this study such as service quality variables, promotions, image, product completeness, consumer satisfaction, consumer loyalty, consumer behavior and other factors.

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