



## THE EFFECT OF PRICE AND PRODUCT QUALITY ON FERTILIZER PURCHASES AT AM JAYA TANI (Solokan Jeruk District, Bandung Regency)

### PENGARUH HARGA DAN KUALITAS PRODUK TERHADAP PEMBELIAN PUPUK DI AM JAYA TANI (Kecamatan Solokan Jeruk, Kabupaten Bandung)

Vina Sri Wulan<sup>1\*</sup>, Wentri Merdiani<sup>2</sup>

<sup>1\*</sup>International Women University, Email: [nanavina088@gmail.com](mailto:nanavina088@gmail.com)

<sup>2</sup>International Women University, Email: [wentri@iwu.ac.id](mailto:wentri@iwu.ac.id)

\*email koresponden: [nanavina088@gmail.com](mailto:nanavina088@gmail.com)

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#### Abstract

This study aims to analyze the effect of price and product quality on fertilizer purchases at Am Jaya Tani Store in Rancakasumba Village, Solokan Jeruk District, Bandung Regency. This research is motivated by a decline in the number of visitors and fertilizer purchases, which is presumed to be influenced by consumers' perceptions of price and product quality. The research method used is a quantitative approach with descriptive and verificative analysis. Data were collected through questionnaires distributed to consumers of Am Jaya Tani Store, with sampling determined based on specific criteria. The data analysis techniques include validity and reliability tests, descriptive analysis, classical assumption tests, multiple linear regression analysis, coefficient of determination, and hypothesis testing using partial (t-test) and simultaneous (F-test) methods. The results indicate that descriptively, price, product quality, and fertilizer purchases are in the fairly good to good category. Partially, price has a significant effect on fertilizer purchases, and product quality also has a significant effect on fertilizer purchases. Simultaneously, price and product quality have a significant effect on fertilizer purchases at Am Jaya Tani Store. The findings of this study are expected to provide practical insights for the management of Am Jaya Tani Store in formulating pricing strategies and improving product quality to increase fertilizer purchases and enhance business competitiveness.

**Keywords :** Price, Product Quality, Fertilizer Purchase.

#### Abstrak

Penelitian ini bertujuan untuk menganalisis pengaruh harga dan kualitas produk terhadap pembelian pupuk pada Kios Am Jaya Tani di Desa Rancakasumba, Kecamatan Solokan Jeruk, Kabupaten Bandung. Penelitian ini dilatarbelakangi oleh adanya penurunan jumlah pengunjung dan pembelian pupuk yang diduga dipengaruhi oleh persepsi konsumen terhadap harga serta kualitas produk yang ditawarkan. Metode penelitian yang digunakan adalah metode kuantitatif dengan pendekatan deskriptif dan verifikatif. Data dikumpulkan melalui penyebaran kuesioner kepada konsumen Kios Am Jaya Tani



dengan teknik pengambilan sampel yang ditentukan berdasarkan kriteria tertentu. Teknik analisis data yang digunakan meliputi uji validitas, uji reliabilitas, analisis deskriptif, uji asumsi klasik, analisis regresi linier berganda, koefisien determinasi, serta uji hipotesis secara parsial (uji t) dan simultan (uji F). Hasil penelitian menunjukkan bahwa secara deskriptif harga, kualitas produk, dan pembelian pupuk berada pada kategori cukup hingga baik. Secara parsial, harga berpengaruh signifikan terhadap pembelian pupuk, dan kualitas produk juga berpengaruh signifikan terhadap pembelian pupuk. Secara simultan, harga dan kualitas produk berpengaruh signifikan terhadap pembelian pupuk pada Kios Am Jaya Tani. Hasil penelitian ini diharapkan dapat menjadi bahan pertimbangan bagi pihak pengelola Kios Am Jaya Tani dalam menetapkan kebijakan harga dan meningkatkan kualitas produk guna meningkatkan pembelian pupuk serta daya saing usaha.

**Kata Kunci :** Harga, Kualitas Produk, Pembelian Pupuk.

## 1. INTRODUCTION

The agricultural sector plays a strategic role in supporting Indonesia's economic structure, particularly in maintaining food security and improving farmers' welfare. One of the key factors influencing agricultural productivity is the availability of production inputs, especially fertilizers, which function to enhance soil fertility and crop yields. In marketing studies, fertilizers are viewed as products whose purchasing decisions are influenced by various factors, including price and product quality.

Price is one of the most flexible elements of the marketing mix and is often used by consumers as a primary consideration in purchasing decisions. According to Tjiptono and Chandra (2020), price represents the amount of money that consumers must pay to obtain a product or service and reflects the value perceived by consumers. An inappropriate price that is not aligned with the benefits or quality of a product may reduce consumers' willingness to purchase. Conversely, competitive pricing can encourage repeat purchases and increase sales volume.

In addition to price, product quality is a critical factor influencing purchasing decisions. Kotler and Keller (2020) define product quality as a product's ability to perform its functions, including durability, reliability, and conformity to specifications. High product quality tends to increase customer satisfaction and positively influence purchasing behavior. In the context of fertilizers, product quality is closely related to the effectiveness of nutrient absorption, soil improvement, and crop productivity, which directly affects farmers' outcomes.

A decline in the number of visitors and fertilizer purchases has been observed at Am Jaya Tani Store in Rancakasumba Village, Solokan Jeruk District, Bandung Regency. Based on internal data and preliminary survey results, some consumers perceive that the fertilizer prices offered are relatively higher than those of competing stores, while the quality of the products does not fully match the prices charged. This situation is further intensified by increasing competition among fertilizer retailers in the surrounding area, making it essential for business owners to understand the determinants of purchasing behavior.



Therefore, this study aims to analyze the effect of price and product quality on fertilizer purchases at Am Jaya Tani Store. The findings of this research are expected to provide empirical contributions to marketing literature, particularly in the field of consumer behavior in the agricultural sector, as well as practical insights for business practitioners in formulating effective pricing strategies and improving product quality to enhance purchasing decisions.

## 2. RESEARCH METHOD

This study employed a quantitative research approach using a survey method. According to Sarwono (2020), quantitative research aims to identify patterns of relationships among variables based on the assumption that social phenomena can be classified, measured, and explained through causal relationships. The survey method was applied using a Likert-scale questionnaire as the primary data collection instrument.

The subjects of this study were consumers who had purchased fertilizer at Am Jaya Tani Store, located in Rancakasumba Village, Solokan Jeruk District, Bandung Regency. Sugiyono (2019) explains that research is a systematic method used to answer research problems; therefore, consumers who had direct experience purchasing fertilizer were selected as research subjects. The object of this study was the effect of price and product quality as independent variables on fertilizer purchasing as the dependent variable. The data used in this study consisted of primary and secondary data. According to Sarwono (2020), data sources refer to the origin of data required to answer research questions. Primary data were obtained directly from respondents through questionnaires distributed to consumers of Am Jaya Tani Store. Secondary data were collected from books, scientific journals, previous research findings, and other relevant documents that support the research.

The research variables were operationalized based on measurement principles suggested by Sarwono (2020). The independent variables included price and product quality, while the dependent variable was fertilizer purchasing. Price was measured using indicators such as price affordability, price suitability with perceived benefits, and price competitiveness. Product quality was measured through indicators of product performance, durability, reliability, and conformity to expected standards. Fertilizer purchasing was measured using indicators including purchase decision, purchase frequency, and willingness to repurchase.

The population of this study consisted of all consumers of Am Jaya Tani Store. According to Sugiyono (2019), population refers to a generalization area consisting of objects or subjects with specific characteristics determined by the researcher. The sampling technique used was non-probability sampling with a purposive sampling approach, where respondents were selected based on predetermined criteria, namely consumers who had purchased fertilizer at the store.

Data collection techniques included questionnaires and literature studies. Sugiyono



(2019) states that questionnaires are an efficient data collection technique conducted by providing written statements to respondents. Responses were measured using a five-point Likert scale, ranging from strongly disagree to strongly agree.

Prior to data analysis, validity and reliability tests were conducted to ensure the accuracy and consistency of the research instrument. Sugiyono (2019) states that an instrument is considered valid if it is capable of measuring what it is intended to measure. Reliability testing was conducted using Cronbach’s Alpha, where a variable is considered reliable if the alpha value exceeds 0.60. Data analysis employed descriptive and verificative statistical techniques. Verificative analysis included classical assumption tests—normality, multicollinearity, and heteroscedasticity—followed by multiple linear regression analysis, coefficient of determination ( $R^2$ ), and hypothesis testing using t-tests and F-tests, as described by Ghozali (2019). All data were processed using SPSS software.

### 3. RESULTS AND DISCUSSION

#### a. Validity and Reliability Testing Results

Variabel	Cronbach's Alpha	Koefisien r	Keterangan
Kualitas Produk	0,742	0,60	Reliabel
Promosi	0,844	0,60	Reliabel
Kepuasan Konsumen	0,863	0,60	Reliabel

Sumber: Hasil olah data (2026)

#### Conclusion:

Prior to hypothesis testing, the measurement instrument was assessed for validity and reliability. Validity was tested using Pearson’s Product Moment Correlation with the assistance of SPSS. The validity test was conducted at a 5% significance level with 92 respondents, resulting in an r-table value of 0.213. An item was considered valid if the calculated correlation coefficient exceeded the r-table value. The results indicate that all items across the price, product quality, and fertilizer purchasing variables exceeded the required r-table value, confirming that all measurement items were valid. Reliability testing was conducted using Cronbach’s Alpha, with a minimum acceptance threshold of 0.60. The results show that the price variable obtained a Cronbach’s Alpha value of 0.742, the product quality variable achieved 0.844, and the fertilizer purchasing variable recorded 0.863. These values demonstrate high internal consistency for all variables.

#### b. Normality Test

Normal Parameters <sup>a,b</sup>	Mean	Std. Deviation	9000000
Mean	3,81387047		
Std. Deviation	1,014		
Minimum	1,000		
Maximum	5,000		
Test Statistics <sup>c</sup>	1,014		
Asymp. Sig. (2-tailed)	2000		
Exact Sig. (2-tailed)	141		
90% Confidence Interval for Upper Percentile	1,132		
Lower Percentile	1,190		

a. Test distribution is Normal.  
 b. Calculated from data.  
 c. Lilliefors Significance Correction.  
 d. This is a lower bound of the true significance.  
 e. Lilliefors' method based on 10000 Monte Carlo samples with starting seed 2000000.

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A normality test was conducted to ensure that the regression residuals satisfied the classical assumption of normal distribution. The Kolmogorov–Smirnov (K–S) test was employed, where the residuals are considered to be normally distributed if the significance value is greater than 0.05. The results of the One-Sample Kolmogorov–Smirnov test indicate that the Asymp. Sig. (2-tailed) value is 0.200, while the Monte Carlo significance value is 0.141. Both significance values exceed the 0.05 threshold, indicating that the residuals follow a normal distribution. These results confirm that the normality assumption is fulfilled, thereby indicating that the regression model is appropriate and can be used for further statistical analysis.

**c. Multicollinearity Test**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	5.182	2.945		1.759	.082		
HARGA	.297	.159	.185	1.875	.064	.641	1.561
KUALITASP	.684	.118	.570	5.770	.000	.641	1.561

The multicollinearity test results indicate that all independent variables have Variance Inflation Factor (VIF) values below 10 (VIF = 1.561) and tolerance values greater than 0.10 (tolerance = 0.641).

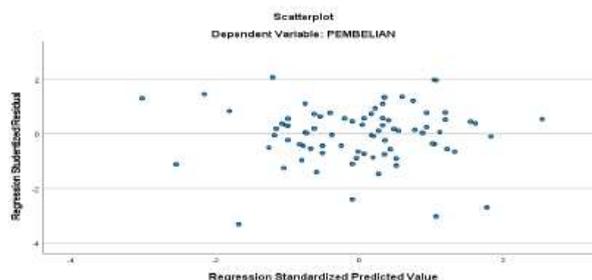
**d. autocorrelation Test**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.698 <sup>b</sup>	.487	.474	3.866	1.866

a. Predictors: (Constant), KUALITASP, HARGA  
 b. Dependent Variable: PEMBELIAN  
 Sumber: Hasil Global Data(2026)

An autocorrelation test was conducted to determine whether there was a correlation between the error terms in the current period ( $t$ ) and those in the previous period ( $t-1$ ). The test was performed using the Durbin–Watson (DW) statistic. Based on the regression results, the Durbin–Watson value obtained was 1.866. Referring to the Durbin–Watson table with  $k = 2$  independent variables and  $n = 85$  observations, the lower critical value ( $d_U$ ) is 1.690, while the upper bound ( $4 - d_U$ ) is 2.310. Since the Durbin–Watson value lies between  $d_U$  and  $4 - d_U$  ( $1.690 < 1.866 < 2.310$ ), it can be concluded that there is no autocorrelation in the regression model. These results indicate that the regression model satisfies the autocorrelation assumption and is therefore suitable for further statistical analysis.

**e. Heteroscedasticity Test**





As shown in the figure above, the results of the heteroskedasticity test using a scatterplot indicate that the plotted points do not form a specific pattern and are randomly distributed above and below, or around, the zero value on the Y-axis. This distribution suggests that the variance of the residuals is constant. Therefore, it can be concluded that no heteroskedasticity is present in the regression model, indicating that the model satisfies the heteroskedasticity assumption and is appropriate for further statistical analysis.

**f. Multiple Linear Regression Analysis**

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
1 (Constant)	5.182	2.945			1.759	.082		
HARGA	.297	.159	.185	1.875	.064	.641	1.561	
KUALITASP	.684	.116	.570	5.770	.000	.641	1.561	

a. Dependent Variable: PEMBELIAN

Source: Data collected 2024

The regression results show that the constant value of 5.182 indicates a positive baseline level of fertilizer purchasing when both independent variables are assumed to be constant. The price variable has a positive regression coefficient of 0.297, suggesting that a one-unit increase in price perception leads to an increase of 0.297 units in fertilizer purchasing, assuming other variables remain constant. Meanwhile, the product quality variable exhibits a positive regression coefficient of 0.684, indicating that an improvement of one unit in product quality increases fertilizer purchasing by 0.684 units, ceteris paribus.

**g. Coefficient of Determination (R<sup>2</sup>)**

Model	Model Summary <sup>b</sup>			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.698 <sup>a</sup>	.487	.474	3.866

a. Predictors: (Constant), KUALITASP, HARGA

b. Dependent Variable: PEMBELIAN

The coefficient of determination (R<sup>2</sup>) was used to measure the ability of the regression model to explain variations in the dependent variable, namely fertilizer purchasing. Based on the regression results, the R Square value obtained was 0.487, while the Adjusted R Square value was 0.474. These results indicate that 48.7% of the variation in fertilizer purchasing can be explained simultaneously by the independent variables, price and product quality. Meanwhile, the remaining 51.3% of the variation is influenced by other factors not included in this research model. This finding suggests that price and product quality have a moderate explanatory power in explaining fertilizer purchasing behavior at Am Jaya Tani Store. Therefore, although the model is capable of explaining a substantial portion of purchasing decisions, other variables outside the scope of this study also play an important role.



## h. Hypothesis Test Results

### 1) Hypothesis Testing (t-test)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1. (Constant)	5.182	2.945		1.759	.082
HARGA	.297	.159	.185	1.875	.064
KUALITASP	.684	.118	.570	5.770	.000

a. Dependent Variable: PEMBELIAN

The partial test (t-test) was conducted to examine the individual effect of each independent variable, namely price and product quality, on fertilizer purchasing.

The results indicate that the price variable has a t-value of 1.875 with a significance level of 0.064, which is higher than the 0.05 threshold. This finding suggests that price does not have a statistically significant effect on fertilizer purchasing at Am Jaya Tani Store.

In contrast, the product quality variable shows a t-value of 5.770 with a significance level of 0.000, which is lower than 0.05. This result indicates that product quality has a positive and statistically significant effect on fertilizer purchasing. Therefore, product quality is a key factor influencing consumers' purchasing decisions.

### 2) Simultaneous Hypothesis Testing

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1181.526	2	590.763	38.860	.000 <sup>b</sup>
	Residual	1225.486	82	14.945		
	Total	2367.012	84			

a. Dependent Variable: PEMBELIAN

b. Predictors: (Constant), KUALITASP, HARGA

The simultaneous test (F-test) was conducted to evaluate the feasibility of the multiple linear regression model and to examine the joint effect of the independent variables, namely price and product quality, on fertilizer purchasing. The results of the ANOVA test indicate that the F-value obtained is 38.860 with a significance level of 0.000, which is lower than the 0.05 threshold. In addition, the calculated F-value is greater than the critical F-table value of 3.11. These results demonstrate that the regression model is statistically significant.

#### i. Discussion

This study discusses the influence of price and product quality on fertilizer purchasing decisions at Am Jaya Tani in Rancakasumba Village based on descriptive and verificative statistical analysis. The descriptive results indicate that most respondents were male, suggesting that fertilizer purchasing activities are predominantly conducted by men. According to Wade and Tavis (as cited in Zakia, 2023), biological sex differs from gender roles that are socially and culturally constructed, where men are often more involved in economically oriented decision-making. Furthermore, Okoroafo et al. (as cited in Marlina & Area, 2022) explain that male consumers tend to prioritize perceived economic value when making purchasing decisions, which is relevant in the context of agricultural input products such as fertilizer.

The age distribution of respondents shows that the majority were within the productive age range of 25–31 years. This finding indicates that fertilizer purchasing decisions are dominated by economically active individuals who are directly involved in agricultural activities.



Consumers within this age group tend to be more engaged in farming operations, which increases their demand for fertilizer products. In addition, most respondents reported purchasing fertilizer more than once, particularly within the 2–3 purchase frequency category. This repeat purchasing behavior reflects a relatively high level of trust and satisfaction with the fertilizer products offered by Am Jaya Tani. From an occupational perspective, most respondents worked as farmers and plantation workers, confirming that fertilizer purchasing decisions are closely related to professional needs in the agricultural sector.

The verificative analysis reveals that price does not have a significant effect on fertilizer purchasing decisions. The partial test results show that changes in price do not significantly influence consumers' decisions to purchase fertilizer at Am Jaya Tani. This finding suggests that fertilizer is perceived as a basic necessity rather than a discretionary product. Consumers tend to prioritize functional benefits and expected outcomes over price considerations. This result is consistent with the findings of Bairizki (2019), who concluded that price does not significantly affect purchasing decisions for essential products. The difference may be explained by the nature of fertilizer as a critical production input for farmers, where effectiveness and reliability are more important than price.

In contrast, product quality was found to have a positive and significant effect on fertilizer purchasing decisions. This indicates that higher product quality increases consumers' willingness to purchase fertilizer. According to Marpaung (2021), product quality reflects a company's ability to meet or exceed consumer expectations through conformity to established quality standards. High-quality fertilizer provides assurance regarding its effectiveness and impact on crop yields, which strengthens consumers' confidence in making purchasing decisions. This finding is also supported by Haque (2020), who found that product quality has a significant and positive influence on purchasing decisions.

Furthermore, the simultaneous test results demonstrate that price and product quality together have a positive and significant effect on fertilizer purchasing decisions. The coefficient of determination indicates that these two variables explain 48.7% of the variance in purchasing decisions, while the remaining 51.3% is influenced by other factors not examined in this study. According to Tanady and Faud (2020), purchasing decisions are formed through a process in which consumers evaluate various alternatives before making a final choice. These findings are also consistent with the study conducted by Haque (2020), which concluded that price and product quality jointly influence purchasing decisions.

Overall, the results indicate that product quality is the most dominant factor influencing fertilizer purchasing decisions at Am Jaya Tani, while price plays a supporting role when considered together with quality. Therefore, maintaining and improving product quality is essential for increasing consumer trust, encouraging repeat purchases, and sustaining competitiveness in the agricultural input market.



#### 4. CONCLUSION

This study examines the effect of price and product quality on fertilizer purchasing decisions at Am Jaya Tani in Rancakasumba Village. The results indicate that consumers generally perceive fertilizer quality positively and consider it suitable for their agricultural needs, while fertilizer prices are regarded as acceptable but not as the primary determinant of purchasing decisions.

The partial test results show that price does not have a significant effect on fertilizer purchasing decisions. This finding suggests that consumers prioritize the functional benefits and effectiveness of fertilizer over price considerations. In the agricultural context, fertilizer is perceived as an essential input, and purchasing decisions are more strongly influenced by expected outcomes than by price variations.

In contrast, product quality has a positive and significant effect on fertilizer purchasing decisions. Higher perceived product quality increases consumer confidence in fertilizer effectiveness, leading to stronger purchasing intentions and repeat purchases. This confirms that product quality is the dominant factor influencing purchasing decisions at Am Jaya Tani.

Furthermore, the simultaneous test results demonstrate that price and product quality jointly have a significant effect on purchasing decisions. The coefficient of determination indicates that these variables explain 48.7% of the variation in fertilizer purchasing decisions, while the remaining 51.3% is influenced by other factors outside the research model. Overall, the findings emphasize the critical role of product quality in shaping fertilizer purchasing decisions, with price functioning as a supporting factor rather than a decisive one.

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