



## The Effect of Product Quality, Service Quality, and Price on Purchase Decision at Lumos Agro Karya

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### Abstract

**Introduction/Main Objectives:** This study aims to analyze the effect of product quality, service quality, and price on the purchase decisions of business partners at Lumos Agro Karya, a company in Malang's food ingredient supply industry.

**Background Problems:** The food ingredient supply industry for the Horeca sector has experienced significant growth in recent years, leading to increasingly high levels of competition.

**Research Methods:** The research uses a quantitative method with a non-probability sampling technique (purposive sampling). Instrument testing included validity, reliability, linearity, heteroscedasticity, and multicollinearity tests. Hypothesis testing was conducted using the T-test, with all data analysis performed using SPSS version 25.00.

**Finding/Results:** The results show that product quality, price, and distribution accuracy influence the purchasing decisions of business partners.

**Conclusion:** The conclusion show that product quality, price, and distribution accuracy are significant determinants for business partners' purchase decisions at Lumos Agro Karya.

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**Keywords:** Product Quality, Service Quality, Price, Purchase Decision



## Introduction

The food ingredient supply industry has shown rapid growth in recent years as a result of increasing demand from the growing hospitality and restaurant sectors. In Indonesia, particularly in the city of Malang, competition in this industry has intensified with the emergence of various companies offering quality ingredients to support hotel operations. Lumos Agro Karya, as one of the companies engaged in the supply of food ingredients, faces challenges in maintaining its position amid increasingly intense market competition. Therefore, this research is important to identify the factors that influence customer purchasing decisions, so that the company can improve its competitiveness and business sustainability.

In the food ingredient supply industry, purchasing decisions are influenced by several key factors such as product quality, service quality, and price. Kotler and Keller (2016:156) explain that product quality is the totality of characteristics and features of a good or service that serve to satisfy customer needs, both explicit and implicit. This explanation is reinforced by (Aprilia, 2021) which states that product quality reflects the specifications designed by the company to meet consumer needs. A key and distinctive feature of services is that they operate as processes rather than tangible products. As a result, service firms offer interactive experiences instead of physical goods. Because services cannot be seen, providers often find it challenging to describe them clearly, and consumers may struggle to evaluate them (Ali et al., 2021). In the hospitality sector, service delivery consistently involves human participation, making human resource management essential—especially the cooperation that occurs between employees and customers, referred to as service interactions. The overall performance of a hospitality business is shaped by these interactions, where customers actively take part, and their influence can determine whether the service succeeds or fails (Abdullah, 2018). Kotler (2012) states that price functions as the only component of the marketing mix capable of generating revenue, while the remaining elements typically require expenditures. Abdullah and Tantri (2012) further emphasize that these other components of the marketing mix involve operational costs that must be managed by the business (Jaya Saputra & Djumarno, 2021). On the other hand, Kotler and Armstrong (2008), as cited by Riyono and Budiharja (2016), explain that price includes several main components, such as price lists, price reductions, discounts, and payment periods. (Angga Hergastyasmawan, 2018).

(Ihsan et al., 2023) A purchasing decision refers to the actions individuals take whether directly or indirectly when acquiring or utilizing goods or services to meet their needs (Tjiptono in Rivaldo & Supardi, 2021). Although previous studies provide a general overview of these variables, there are still gaps in research, especially in the context of food ingredient suppliers in Malang. Engel et al. (2010:4) define consumer behavior as activities related to obtaining, using, and utilizing products or services, including the decision-making process before and after (Anwar & Satrio, 2015). Therefore, this study was conducted to fill this gap by analyzing the influence of product quality, service quality, and price on the purchasing decisions of Lumos Agro Karya customers through testing using the T-test. This study used an explanatory research method to explain the relationship between these components, with the population of Lumos Agro Karya customers in Malang City and a sample of 81 respondents obtained through non-probability sampling techniques. Data processing was performed using SPSS version 25.00 to ensure the validity of the research results. The results of this study are expected to provide strategic recommendations for Lumos Agro Karya in facing increasingly fierce industry competition.

## Research Methods

This study applies an explanatory research approach that aims to describe the relationship

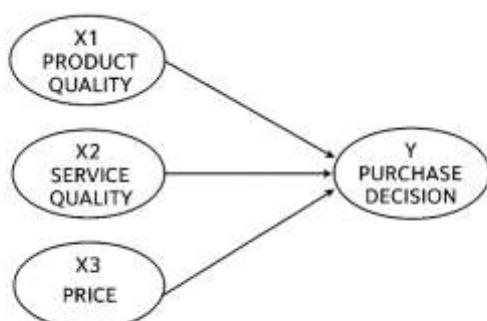
and influence between product quality, service quality, and price on purchasing decisions at Lumos Agro Karya. The population in this study includes all Lumos Agro Karya customers in Malang City, although the exact number is unknown. A sample of 100 respondents was obtained through non-probability sampling, with the criteria being active customers of the company. This technique was chosen due to limited access to the entire population, making probability sampling impossible without a complete sampling frame. Some of the advantages of non-probability sampling include lower costs, availability when a sampling frame is not available, and greater efficiency when the population is widely dispersed, making cluster sampling less effective. (Jailani & Jeka, 2023)

Data collection was conducted using a questionnaire based on a 1–5 Likert scale. The instrument consisted of 17 statements grouped into four sections, namely product quality (5 items), service quality (6 items), price (3 items), and purchase decision (3 items). Before use, the instrument was tested through a pilot test on 100 respondents outside the main sample using confirmatory factor analysis and reliability testing using Cronbach's Alpha. The test results showed that all indicators met the validity and reliability requirements with an alpha value above 0.7. The data collection process was carried out through structured interviews and the distribution of online questionnaires using Google Forms during the period from October to November 2025 at hotels and restaurants that are partners of Lumos Agro Karya.

The research steps were carried out sequentially to ensure replicability. First, the researchers identified the variables and formulated their definitions based on theoretical studies, then developed the research instruments. Second, the instruments were tested to ensure their suitability. Third, data collection was carried out using the incidental method, whereby the researcher met prospective respondents at the partner's location and asked for their willingness to participate. Fourth, the collected data were coded and analyzed using SPSS version 25.00. The analysis included descriptive statistics, validity and reliability tests, and multiple linear regression analysis to test the simultaneous effect of independent variables on dependent variables.

Creswell (2014) Defining research methods as a series of steps, techniques, and procedures used by researchers to design, conduct, and interpret research data. This definition covers the entire research process, from selecting an approach to interpreting results (n.d., p. Dr. Juriko, Imam Sopingi). The tools used in this study included printed and digital questionnaires, laptops, smartphones, and SPSS software for analysis. With structured procedures, this study can be replicated by other researchers with consistent results as long as the conditions and characteristics of the sample remain comparable.

### **Research Framework and Hypothesis.**



**Figure 1 Research Framework**

Source: Authors Data, 2025

**H1:** Product quality collectively influence purchasing decisions at Lumos Agro Karya.

**H2:** Service quality influences purchasing decisions.

**H3:** Price influences purchasing decisions.

This study is based on data processed from 81 questionnaires completed by Lumos Agro Karya customers in Malang City. This number is considered sufficient for analysis after the selection process, because out of 100 questionnaires distributed, 19 were incomplete and therefore did not meet the eligibility requirements. All data were analyzed using SPSS version 25.00, covering respondent profiles, testing the validity and reliability of the instruments, and multiple linear regression analysis to test the influence of independent variables on purchasing decisions.

Data collection was conducted through a survey using questionnaires. According to Sugiyono (2012), questionnaires are a data collection technique that provides respondents with a series of written questions to answer. This technique is considered efficient when researchers understand the variables to be measured and can estimate respondents' responses (Wahyuningtias et al., 2014). Secondary data was obtained from relevant literature and references. Referring to Riduwan (2003:7), population is defined as a generalization area consisting of objects or subjects with certain characteristics that are determined for research (Kurniawati et al., 2023). The population of this study consisted of 100 Lumos Agro Karya customers who were at least 17 years old and had made more than two purchases (Firmansyah & Dede, 2022) adding that the larger the sample size, the smaller the risk of bias, although the sample size needs to be adjusted to the researcher's resources (Johnson & Gill, 2010; Taherdoost, 2016).

## Result

### Validity and Reliability Tests

Validity tests are conducted to ensure that each questionnaire item accurately measures the intended variable. Validity is tested using bivariate correlations between item scores and total construct scores. An item is considered valid if the 2-tailed significance value is  $< 0.05$ . In addition to being valid, the instrument must also be reliable. Reliability is tested using Cronbach's Alpha, where an instrument is considered reliable if the alpha value is  $> 0.70$ .

**Table 1 Validity Test Result**

#### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
P01	66.3333	51.825	.854	.834
P02	66.0864	57.580	.494	.852
P03	66.4444	52.675	.697	.840
P04	66.2963	59.036	.203	.862

P05	66.3457	52.379	.770	.838
P06	66.5556	55.300	.406	.855
P07	66.3457	56.204	.380	.856
P08	66.4074	53.444	.615	.844
P09	66.4691	59.502	.118	.868
P10	66.5309	54.477	.459	.852
P11	66.3086	57.441	.290	.860
P12	66.6173	54.689	.450	.853
P13	66.3457	55.654	.424	.854
P14	66.4568	55.226	.463	.852
P15	66.2716	55.600	.460	.852
P16	66.3457	52.854	.681	.841
P17	66.1358	57.669	.518	.852

Source : Authors Data, 2025

The Item-Total Statistics results table shows that each indicator has an adequate correlation. Based on a Pearson Correlation value of 0.216, the item is declared valid because it has a correlation value greater than the minimum limit set.

**Table 2 Case Processing Summary**

**Case Processing Summary**

		N	%
Cases	Valid	81	100.0
	Excluded <sup>a</sup>	0	.0
	Total	81	100.0

a. Listwise deletion based on all variables in the procedure.

Source : Processed Data, 2025

**Table 3 Reliability Statistics****Reliability Statistics**

Cronbach's Alpha	N of Items
.859	17

Source : Processed Data, 2025

The reliability test results showed a Cronbach's Alpha value of 0.859 for 17 items, so all variables were categorized as reliable.

Confirmatory factor analysis also showed that all items had factor loadings above 0.5, so the instrument was considered valid and suitable for use.

**Multiple Linear Regression Analysis Results.****Table 4 Variables Entered/Removed**

Variables Entered/Removed <sup>a</sup>			
Model	Variables Entered	Variables Removed	Method
1	X03, X02, X01 <sup>b</sup>		Enter

a. Dependent Variable: Y

b. All requested variables entered.

**Output Determination Coefficient.****Table 5. Model Summary**

Model Summary				
Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.810 <sup>a</sup>	.657	.643	.94613

a. Predictors: (Constant), X03, X02, X01

Source : Processed Data, 2025

Sujarweni (2015:225) explains that the coefficient of determination ( $R^2$ ) serves as a key indicator in regression analysis.  $R^2$  illustrates how well the dependent variable can be explained by the model. This measure is used to determine the extent to which the independent variables contribute to variations in the dependent variable. (Ihsan et al., 2023)

Based on the analysis presented earlier, the findings are aligned with the predetermined research hypotheses. The first hypothesis indicates that product factors significantly influence purchase intention, which is consistent with earlier studies (Darmawan, 2004; 2017; Budiyanto,

2005; Kinney et al., 2012; Beneke et al., 2013; Owusu, 2013; Faith & Agwu, 2014; Lien et al., 2015). These prior works similarly highlight that product attributes contribute to shaping consumer interest in making purchases. The second hypothesis reveals that service quality does not have a meaningful impact on purchase intention, while the third hypothesis shows that price also does not produce a significant effect on consumers' intention to buy (Arif Rahman Putra, 2024).

Regression analysis was performed by entering all independent variables (X01, X02, X03) using the enter method. The Model Summary results show an Adjusted R Square value of 0.657, which means that 66% of the variation in purchasing decisions can be explained by product quality, service quality, and price simultaneously.

### Simultaneous F Test Output.

**Table 6 Anova**

ANOVA <sup>a</sup>						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	131.913	3	43.971	49.121	.000 <sup>b</sup>
	Residual	68.927	77	.895		
	Total	200.840	80			

a. Dependent Variable: Y

b. Predictors: (Constant), X03, X02, X01

Source : Processed Data,2025

The influence of each independent variable on the dependent variable is assessed using the t-test (Widjarjono, 2010). In addition, Kuncoro (2009) notes that the F-test is applied to determine whether the independent variables collectively have a significant impact on the dependent variable (Purnomo & Supriyadi, 2024).

Based on the ANOVA table, a significance value of 0.000 (<0.05) was obtained, so that the regression model as a whole was declared valid. This shows that the three independent variables have a significant combined effect on purchasing decisions.

### T Test

**Table 7 Coefficients**

Model		Coefficients <sup>a</sup>				
		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.910	.951		2.009	.048
	X01	.365	.071	.612	5.152	.000

X02	.101	.065	.179	1.559	.123
X03	.059	.088	.066	.678	.500

a. Dependent Variable: Y

Source : Processed Data,2025

The first hypothesis (H1), which proposes that product factors have a positive and significant influence on hotel satisfaction, is supported. This indicates that improvements in product attributes contribute to higher satisfaction levels. These findings align with Benur and Bramwell (2015), who argue that product quality plays a key role in driving satisfaction and encouraging repeat purchases (Mamengko, 2022).

The second variable, Service Quality (X2), shows a partial negative influence on customer satisfaction (Y).

Similarly, the third variable, Price (X3), also demonstrates a partial negative relationship with customer satisfaction (Y).

If the Sig. value is  $<0.05$ , it can be concluded that there is a significant effect, and if the Sig. value is exactly 0.05, then to determine whether or not there is an effect of the Independent Variable on the Dependent Variable, you can use a comparison of the Calculated T and Table T.

### T Test Analysis

The partial test results are as follows:

**X1 (Product Quality):** Sig value = 0.000  $< 0.05$   $\rightarrow$  significantly influential.

**X2 (Service Quality):** Sig value = 0.123  $> 0.05$   $\rightarrow$  not significantly influential.

**X3 (Price):** Sig value = 0.500  $> 0.05$   $\rightarrow$  not significantly influential.

### Multiple Regression Equation Analysis.

The regression model obtained is:

$$Y = 1,910 + 0,000X_1 - 0,123X_2 - 0,500X_3$$

The constant of 1.910 indicates that if all independent variables are considered constant, the purchase decision will be at a value of 1.910. The regression coefficient X1 is positive, indicating that an increase in product quality will increase the purchase decision. The coefficients X2 and X3 are negative, indicating that a decrease in the variables of service quality and price will have an impact on a decrease in the purchase decision.

Overall, the results of this study confirm that product quality is the most dominant factor influencing purchasing decisions. These findings also emphasize that improving product quality, service, and appropriate pricing strategies can strengthen Lumos Agro Karya's position in the market competition.

## Discussion

This study begins by interpreting the results of multiple linear regression analysis, which shows that product quality, service quality, and price simultaneously have a significant effect on the purchasing decisions of Lumos Agro Karya customers. The  $R^2$  value of 0.859 indicates that the model is able to explain 86% of the variation in purchasing decisions, so that these three variables can be considered strong predictive factors in the context of supplying food ingredients to the hospitality sector. Of the three variables, product quality emerged as the most dominant factor, as reflected in the highest beta coefficient. This confirms that customers prioritize fresh, safe products with high quality standards to support smooth hotel operations. The variables of service quality and price follow in the next positions and show that all three collectively contribute to increased customer loyalty and purchase intensity.

To reinforce these results, a comparative analysis was conducted with previous studies discussed in the introduction. Product quality dominance is in line with quality perception theory, which emphasizes that customers assess the superiority of a product based on its ability to meet expectations. This is consistent with the findings (Adhika, 2024) which shows that quality has a direct correlation with purchase intention. Parasuraman, Zeithaml, and Berry (1988) explain that service quality reflects the gap between what customers expect and what they actually experience. When this gap becomes narrower, customers tend to view the service as having better quality (Noorsyah, 2024). The service quality variable, which also shows a significant influence, underscores the importance of aspects such as service speed and reliability, especially in the hotel raw material supply business, which demands punctuality and operational support. Although consistent with previous research, these results show a more specific application in the context of the B2B hospitality industry, which has more complex service needs than the general retail sector.

Meanwhile, price variables with lower beta than other variables indicate that competitive pricing remains a distinguishing factor, especially in cost-sensitive markets. However, this study reveals that in the hotel raw materials supply industry, price is not a major factor as is generally the case in consumer markets, but rather serves only to support product and service quality. These results are in line with the findings of Anderson and Sullivan, but this study provides an additional perspective by focusing on a more specific B2B environment, where product quality is prioritized over price.

The implications of this research include practical and theoretical aspects. From a practical stand point, Lumos Agro Karya needs to pay more attention to product quality control through certification processes, selection of credible suppliers, and continuous innovation. In addition, improving service quality through staff training to improve responsiveness and delivery timeliness needs to be considered, followed by a competitive pricing strategy that still maintains the company's profitability. From a theoretical perspective, this study contributes to the development of B2B marketing literature by adding empirical evidence from the food ingredient supply industry for hotels, as well as closing a research gap that has not been widely discussed previously.

However, this study has limitations, such as the use of incidental sampling techniques and a location coverage that is limited to the city of Malang, so the results cannot necessarily be generalized broadly. Nevertheless, the discussion flow leads to the conclusion that this study not only supports previous findings but also provides new insights that can help Lumos Agro Karya develop more competitive business strategies while enriching marketing studies in Indonesia.

## Conclusion

The results of this study reveal that product quality, service quality, and price simultaneously have a significant effect on the purchasing decisions of Lumos Agro Karya customers in Malang City. Multiple linear regression analysis shows that product quality is the most dominant factor, with the model explaining 86% of the variation in purchasing decisions. These findings were obtained from data collected from 81 respondents, predominantly males aged 17 to over 43 years old who work in the hospitality sector, and were supported by research instruments that had undergone adequate validity and reliability tests. Overall, the results of the study emphasize the importance of improving product and service quality as a key strategy to strengthen the company's competitiveness, although it must be acknowledged that the use of incidental sampling techniques and perception-based data may limit the level of generalization of the results.

For further research development, the use of probability sampling methods and mixed methods is recommended so that the scope and depth of analysis can be optimized. From a policy perspective, improving raw material quality standards through government regulatory support can strengthen the structure of the food raw material supply industry for the hospitality sector. Further research could also consider other variables such as brand image and the influence of digitalization on purchasing decisions. Thus, this research not only provides practical contributions to Lumos Agro Karya, but also enriches the theoretical foundation for the development of B2B marketing science in Indonesia.

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