The Effect of Product Quality and Price on Customer Loyalty of Black Cough Medicine

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Abstract: This research aims to analyze the influence of product quality and price on customer loyalty of Indoplus brand Black Cough Medicine (OBH Syrup) produced by PT Indofarma Tbk, with a case study at Kimia Farma Pharmacy, Bandung Business Unit. Customer loyalty is a key factor in maintaining market share and encouraging business sustainability in the pharmaceutical industry, especially for cough medicine products. This research uses a quantitative approach with survey methods and data collection through questionnaires distributed to customers who buy and use OBH Syrup Indoplus products at Kimia Farma Bandung Pharmacy. The variables tested in this research are product quality and price as factors that influence customer loyalty, which are analyzed using multiple linear regression. It is hoped that the results of this research will provide useful insights for PT Indofarma Tbk in optimizing marketing and pricing strategies, as well as improving product quality to strengthen customer loyalty in the cough medicine market Key words: Product Quality. Price, customer loyalty.

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INTRODUCTION

Indonesia has a tropical climate. The dry environment, pollution, and changes in weather often trigger coughing. Everyone experiences a cough, which is a reflection of the lungs' primary defense mechanism, which is to expel foreign objects from the airways. While a cough can be a symptom of other illnesses, it's not a specific symptom, as most respiratory diseases present with coughing as a clinical symptom. However, when experiencing a cough, consumers tend to seek first aid by taking over-the-counter (OTC) cough medications to address the discomfort. If symptoms persist, they may seek medical attention for further evaluation, a proper diagnosis, and then seek a prescription for ethical medication or other treatments.

Coughs are often considered mild and unnecessary. However, coughs can be very bothersome and even lead to serious complications. Coughs are typically classified based on their duration and can be divided into three categories: acute for less than 2 weeks, subacute for 2-8 weeks, and chronic for more than 8 weeks. Each of these categories can have a variety

of causes (OTC Digest, September 2006). If consumers haven't consulted a doctor, they will often purchase over-the-counter cough medications that suit their symptoms. This choice is highly dependent on information obtained from various sources.

This phenomenon led to an increase in demand for Black Cough Syrup in pharmacies and drug stores, but declined again between 2023 and 2025. Black Cough Syrup's green dot indicates that it is freely available without a prescription. Black Cough Syrup is the simplest option for reducing fever if someone is infected with a virus. Black cough medicine, better known as OBH (Obat Batuk Hitam), is a type of cough medicine commonly available in Bandung and widely used by the public. The development of this medicine in Bandung in 2024 has not seen significant changes in terms of type or formulation. OBH remains a popular choice due to its effectiveness in treating phlegmy coughs.

PT Kimia Farma Apotek is a subsidiary of PT Kimia Farma TBK, which operates retail pharmacies with a wide distribution throughout Indonesia. As of December 2024, Kimia Farma had 1,188 pharmacies across all provinces in Indonesia, divided into 48 branch areas. One of the largest branches is in Bandung, West Java, with 53 pharmacies under its Branch Manager. The Bandung Business Unit Branch Manager has approximately 300 employees, spread across several pharmacies.

Based on developments in the community, PT Indo Farma Tbk launched a new branded Black Cough Syrup product in 2023 under the trademark OBH Indoplus. Previously, PT Indo Farma Tbk had only produced and marketed Black Cough Syrup under the generic trademark to meet the needs of both the general public and government programs. Paratusin is a cough capsule medicine produced by PT Darya-Varia Laboratoria TBK which is strong at a low price and is attached to the public as a major player in the drug class brand, while PT Dexa Medica places its Rhinos cough tablet product in the most expensive price position compared to other competing cough medicine products.

Based on sales data for cough medicine (OBH, tablets, and capsules), researchers are interested in conducting this research. The different pricing strategies for these three products in the same market are of interest to researchers, who is interested in determining which product will dominate the Black Cough Syrup market based on sales results over a specific period. With these three products having different price points but aiming to capture the same market, which product will be successful, given their pricing strategy and marketing approach.

Figure 1. PT Kimia Farma Sales Report Dashboard 2024

Based on the dashboard above, Sahabat Pharmacy, located in Padang, had the lowest total revenue and sales volume, while Merdeka Pharmacy, located in Bandung, had the highest sales volume and total revenue from January to February 2024. Furthermore, when viewed by

brand and product, Acyclovir Box, from the OGB and PH brands, had the highest total revenue compared to other products.

Black cough medicine is a prescription-only medication, making competition increasingly fierce. A company can survive by developing strategies to foster customer loyalty and retention. To win the competition, a company must be able to identify the right strategies to build customer loyalty. In general, many factors influence consumer loyalty.

According to (Putra, 2021), loyalty is the result of commitment that arises naturally without external pressure. Customer loyalty refers to customers who consistently make repeat purchases, ultimately ensuring sustainable revenue for the company (Hidayat, 2023). Customer loyalty can be formed when they are satisfied with a particular product or brand and have the intention to maintain that relationship (Sambodo Rio Sasongko, 2021).

Product quality also has a significant impact on business development and progress (Hidayat et al., 2023). Product quality is the ability of a product to perform its function well. This involves factors such as durability, reliability, accuracy, ease of use, and repairability, along with other attributes. Product quality is the result of various properties arising from the marketing, production, and maintenance processes, which enable the product to meet the expectations of customers or consumers of products or services with the aim of satisfying stated or implied customer needs (Khumaeroh et al., 2023). According to (Khumaeroh et al., 2023), product quality is the ability of a product to perform its functions effectively and satisfactorily. Product quality encompasses aspects such as lifespan, reliability, ease of use, repairability, and other added value.

The price of a product or service is also a major determinant of market demand, which can influence competitive position (Susilo, 2022). Price, as part of the marketing mix, is typically understood as the specific monetary value associated with a product and a component of the marketing mix, and should generally be understood (Aisyah, 2021). Price has the potential to influence financial performance and significantly impact buyer perceptions. Price encompasses all monetary costs incurred by consumers to obtain, own, or use various combinations of products and services (Apipah et al., 2022). It can be concluded that product price is a key decision factor considered by customers when making purchasing decisions, and price is a key factor in establishing the brand identity chosen by consumers.

Survey Results for Kimia Farma Pharmacy Customers The problem of customers not being loyal to Indo Plus Black Cough Medicine products. Customer disloyalty to Cough and Flu Medicine can be caused by several main factors related to product perception, competition, and consumer experience. Many Similar Product Choices (High Competition) The OBH market is very competitive. Many brands have similar compositions, flavors, and benefits. Consumers can easily switch to other brands that offer lower prices, better flavors, or faster effects. Lack of Product Differentiation If OBH does not have a unique feature (for example: a distinctive flavor, natural ingredients, or certain variants), then consumers will consider it mediocre. Without clear advantages, consumers are easily tempted by other products that look more "attractive" in advertisements or packaging.

Lack of Confidence in Effectiveness. If customers feel the benefits are insignificant or don't improve quickly, they tend to try other brands. Some customers also look for natural or herbal OBH, and if a brand doesn't meet these expectations, they will switch. The Influence of Advertising and Promotion of Other Brands. Other brands that actively advertise and promote, such as through TV, social media, or doctor/celebrity endorsements, can divert consumers' attention. If OBH doesn't have strong communication with customers, they are easily "forgotten." Lack of Emotional Loyalty. Products like OBH are usually transactional: only purchased when sick. Without a touching customer experience or building a long-term relationship, customers don't feel emotionally connected. Uncompetitive Pricing. If OBH's price is higher than competitors but doesn't offer added value, customers will choose a cheaper

product. Based on the background presented, this study attempts to conduct a study entitled "The Influence of Product Quality and Price on Customer Loyalty of Black Cough Medicine." Based on a theoretical review, relevant research findings, and the research framework, the following research hypothesis is formulated:

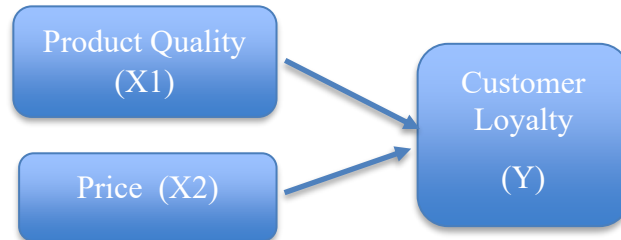The following is an illustration of the theoretical framework for this study.

Figure 2. Framework of Thought

Hypothesis
1) There is a positive and significant influence between product quality and customer loyalty to Indofarma Black Cough Medicinend
2) There is a positive and significant influence between price and customer loyalty to Indofarma Black Cough Medicinend Syrup

METHOD
The research method used in conducting this research uses a quantitative method with a descriptive research approach and verification analysis. The purpose of this approach is to find out whether a variable has an influence on other variables, in this study explains the influence between variables (x_1), Product quality (x_2) Price, on the Customer Loyalty variable (Y). The sample of this study was 96 Data collection techniques used were by means of field research and library research studies. multiple linear regression analysis, Hypothesis Testing: Statistical Test t (Partial Test), Determination Coefficient (r^2).

RESULTS AND DISCUSSION
a) Respondent Characteristics
Respondent characteristics were grouped by gender, age, status, and monthly expenditure to provide a general overview of the customer profile of the sample in this study.
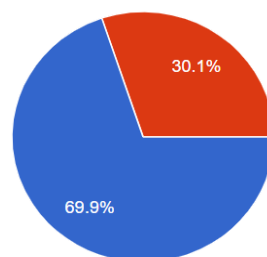

Figure 3. Respondent Analysis by Gender

Based on the data above, the majority of respondents in this study were male (70%), while female respondents accounted for 30%. This percentage indicates that men are more likely to access or consume OBH Syirup products, both due to preference and active involvement in OBH Syirup consumption activities. However, the number of female respondents also indicates that this product is enjoyed by both genders, with a fairly even distribution.
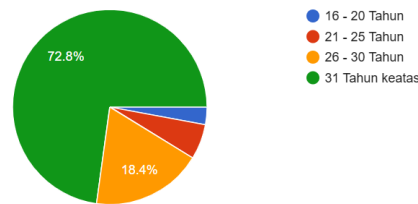
Figure 4. Respondent Analysis by Age

In terms of age, the 31-year-old age group accounted for 73%. These two groups represent the early productive age group with high levels of social activity, including consumption of OBH Syrup products at Kimia Farma Pharmacy in Bandung. This indicates that OBH Syrup products have strong appeal among young people and young adults. The 26–30 age group followed in second place, contributing 18%, indicating that OBH Syrup products are also popular among students and teenagers.
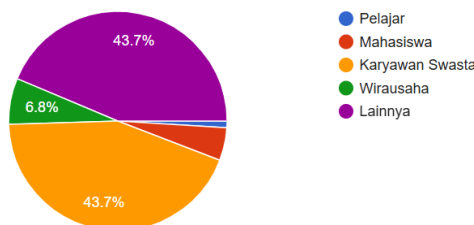
Figure 5. Respondent Analysis by Status

From the data above, it can be concluded that the majority of respondents were private sector employees (44%), followed by other respondents (44%) and entrepreneurs (7%). Students accounted for 3%. Students also contributed 2% of the total respondents. This composition indicates that OBH Syrup is highly sought after by educated and young workers, who are highly mobile and tend to choose OBH Syrup as it is affordable for their busy schedules. This segmentation is important for marketing strategies, as this group is often the trendsetter in the consumption of generic drugs.
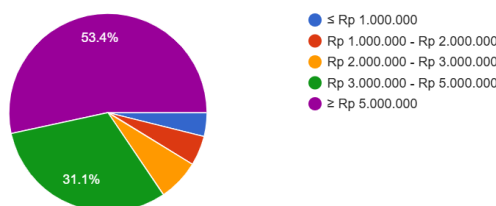
Figure 6. Respondent Analysis Based on Monthly Expenditure

In the monthly expenditure category, the majority of respondents were in the range of IDR 5,000,000 (53%) and IDR 3,000,000–5,000,000 (31%). This indicates that most OBH Syrup consumers are from the middle and lower-middle class, who choose OBH Syrup at Kimia Farma Pharmacies for its affordable prices while still prioritizing quality. This indicates that OBH Syrup reaches a broad segment, but is particularly strong among productive economic groups with limited monthly budgets.

b) Multiple Linear Regression Analysis

The regression results will be used to determine the extent of the joint influence of Product Quality and Price on Customer Loyalty. Furthermore, the partial influence of each variable will be analyzed using a t-test and the simultaneous influence using an F-test. The output of this regression will also include a coefficient of determination (R^2) value, which indicates how much of the variation in Customer Loyalty can be explained by Product Quality and Price.

Table 1. Multiple Linear Regression Test Results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-17.730	6.632		-2.673	.009
Procuct Quality	.304	.060	.426	5.042	.000
Price	.252	.065	.327	3.876	.000

a. Dependent Variable: Coustome Loyalty

Source: SPSS 2025 Output

Based on Table 1, the results of the multiple linear regression analysis show that:

1) The regression coefficient for the Product Quality variable (X1) is 0.304 with a significance value of 0.000. This means that every one-unit increase in Product Quality will increase Customer Loyalty by 0.304 units, assuming other variables remain constant. Because the significance value is less than 0.05, this effect is considered significant.

2) The regression coefficient for the Price variable (X2) is 0.252 with a significance value of 0.000. This means that every one-unit increase in Price will increase Customer Satisfaction by 0.252 units, assuming other variables remain constant. The significance value, also below 0.05, indicates that the effect of Price on Customer Loyalty is also significant.

Overall, both independent variables (X1 and X2) have a positive and significant effect on the dependent variable (Y), meaning that the better the product quality and price, the higher the customer loyalty.

c) Coefficient of Determination Test Results

The coefficient of determination (R^2) test was conducted to determine the regression model's ability to explain the variation in the dependent variable, namely Price, which is influenced by the independent variables Product Quality and Price. The R^2 (R Square) value can be seen in the model summary output in the multiple linear regression analysis. The higher the R^2 value, the greater the contribution of the independent variable in explaining the dependent variable. With 100 respondents, the results of this test serve as a reference to determine the extent to which Product Quality and Price jointly explain the level of Customer Loyalty at OBH Syrup at Kimia Farma Pharmacy, Bandung. Once the R^2 value is obtained from the SPSS output, it will be possible to determine the percentage influence of the two independent variables on the dependent variable. However, because the results have not yet been displayed, at this stage the coefficient of determination test is only prepared as part of the feasibility test for the regression model used in the study.

Table 2. Results of the Simultaneous Coefficient of Determination Test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.611[a]	.374	.361	4.55920

a. Predictors: (Constant), Price, Pruck Quality

Source: SPSS 2025 Output

Based on the results of the coefficient of determination test shown in Table 2, the R-square value was 0.374. This means that 37.4% of the Customer Loyalty variable can be explained by the independent variables Product Quality and Price simultaneously. The remaining 62.6% is explained by other factors outside this research model, such as promotions and CRM.

The Adjusted R-square value of 0.361 indicates that after adjusting for the number of variables and the sample size (100 respondents), the contribution of both independent variables to Customer Loyalty remains strong, at approximately 36.1%. The Standard Error of the Estimate value of 4.55920 indicates the average prediction error of the model in estimating Customer Loyalty.

Thus, the constructed regression model has a fairly good level of explanation in describing the relationship between Product Quality and Price on Customer Loyalty at OBH Syrup at Kimia Farma Pharmacy, Bandung.

Table 3. Results of the Coefficient of Determination Test of Variable X1 against Variable Y

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.526ª	.276	.269	4.87451
a. Predictors: (Constant), Product Quality				

Source: SPSS 2025 Output

Based on the results of the coefficient of determination test in Table 3., the R-square value was 0.276, indicating that the Product Quality variable (X1) partially explains 27.6% of the variation in the Customer Loyalty variable (Y). Meanwhile, the remaining 72.4% is explained by other variables not included in this model, such as service quality, price, atmosphere, and customer personal preferences.

The Adjusted R-square value of 0.269 indicates the significant contribution of product quality to customer loyalty after adjusting for the sample size (100 respondents). Meanwhile, the Standard Error of the Estimate value of 4.87451 indicates the average estimation error of the model in predicting customer loyalty based on perceptions of product quality.
Thus, it can be concluded that product quality has a significant contribution in explaining customer loyalty at OBH Syrup at Kimia Farma Pharmacy, Bandung, although other factors also play a role.

Table 4. Results of the Coefficient of Determination Test of Variable X2 against Variable Y

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.458ª	.209	.201	5.09570
a. Predictors: (Constant), Price				

Source: SPSS 2025 Output

Based on Table 4, the R-square value of 0.209 indicates that the Price variable (X2) partially explains 20.9% of the variation in the Customer Loyalty variable (Y). Meanwhile, the remaining 79.1% is explained by factors other than Price.

The Adjusted R-square value of 0.201 indicates that, after adjusting for the sample size (100 respondents), the effect of Price on Customer Loyalty remains within the 20% range. The Standard Error of the Estimate value of 5.09570 indicates the average estimation error of the model in predicting customer loyalty levels based on perceptions of Price.
Thus, it can be concluded that although Price contributes to customer Loyalty at OBH Syrup at Kimia Farma Pharmacy in Bandung, this contribution is still moderate, and other factors also play a significant role in shaping overall customer Loyalty.

d) T-Test Results

The t-test, also known as the partial significance test, is a statistical method used to determine whether an individual independent variable has a significant effect on the dependent variable in a regression model. This test is performed by comparing the calculated t-value with the t-table or by looking at the significance value (p-value). If the significance value is less than the specified significance level (usually 0.05), then the variable is considered to have a significant effect. The t-test is crucial in quantitative research because it helps researchers assess the strength of each independent variable's influence on the dependent variable, thus identifying which variable most dominantly influences the research results.

Table 5. T-Test Results

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-17.730	6.632		-2.673	.009
Product Quality	.304	.060	.426	5.042	.000
Price	.252	.065	.327	3.876	.000

a. Dependent Variable: Customer Loyalty

Source: SPSS 2025 Output

Based on the results of the partial regression analysis (t-test) presented in Table 4.21, the Product Quality variable has a calculated t-value of 5.042 with a significance value (Sig.) of 0.000, which is less than the 0.05 level of significance. This indicates that product quality significantly influences customer loyalty to OBH Syrup at Kimia Farma Pharmacy in Bandung. The unstandardized regression coefficient for this variable is 0.304, meaning that each one-unit increase in product quality will increase customer loyalty by 0.304, assuming other variables remain constant.

Furthermore, the Price variable also shows a significant influence on customer loyalty, with a calculated t-value of 3.876 and a significance value of 0.000 (less than 0.05). The unstandardized regression coefficient of 0.252 indicates that each one-unit increase in price increases loyalty satisfaction by 0.252. From these results, it can be concluded that both product quality and price have a positive and significant influence on customer loyalty at OBH Syrup at Kimia Farma Pharmacy, Bandung. This indicates that the better the product quality and price, the higher the level of customer loyalty.

CONCLUSION

The study concluded that product quality has a positive and significant effect on customer loyalty. This indicates that the higher consumers' perceptions of product quality, the higher their level of loyalty. Empirically, product quality has a positive and significant effect on customer loyalty, as good quality increases satisfaction, builds trust, and strengthens customer commitment to continue using the product.

The study concluded that price has a positive and significant effect on customer loyalty, meaning the better the price received, the higher the level of benefits from OBH's product quality perceived by customers. Empirically, price has a positive and significant effect on customer loyalty. If the price is perceived as fair, consistent, and commensurate with the product quality, customers will be satisfied, trusting, and remain loyal to the product.

The results of the study concluded that simultaneously, product quality and price both have a significant effect on customer loyalty, which indicates that these two aspects complement each other in forming a satisfying experience until customer loyalty is achieved. Simultaneously, product quality and price both have a significant effect on OBH customer loyalty. High-quality OBH will satisfy customers. Fair and consistent prices make customers

believe and feel the value of the product is in accordance with the benefits. The combination of the two produces strong loyalty, characterized by repeat purchases, willingness to recommend, and reluctance to switch to competing cough products.

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