

Influence of product quality and price on the decision to purchase eyeglass at Optic Naufal Serpong

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ABSTRACT

This study aims to examine the effect of Product Quality and Price on Purchasing Decisions at Naufal Optics in Serpong. Types of quantitative research methods with an associative approach, with a population of 990 consumers and with a sample of 91 respondents and with analysis using analytical tests, namely validity tests, reality tests, linear regression tests, correlation coefficient tests, determination tests, t tests and f tests also use classical tests normality tests, multicollinearity tests, autocorrelation tests and heteroscedasticity tests. The results of the research conducted. the effect of Product Quality on Purchasing Decisions obtained the value of the regression equation $Y = 1.048 + 0.613 X_1$. The hypothesis test obtained a calculated value of $t_{\text{table}} > (21,328 > 1,987)$. Thus, H_0 was rejected and H_1 was accepted, this shows that there is a positive and partially significant influence between Product Quality and Purchasing Decisions at Naufal Optics in Serpong. While the Price against the Purchase Decision obtained the value of the regression equation $2.235 + 0.923 X_1$. Test the hypothesis obtained $t_{\text{calculate}}$ t_{table} value or $(23,253 > 1,987)$. Thus H_0 was rejected and H_2 was accepted, this shows that there is a partial positive and significant influence between Price and Purchase Decision at Naufal Optics in Serpong. then, the effect of Product Quality and Price on Purchasing Decisions obtained regression equation $Y = 0.318 + 0.273 X_1 + 0.551 X_2$. The hypothesis test obtained the value of $F_{\text{calculate}} > F_{\text{table}}$ or $(339,260 > 3.10)$. Thus, H_0 is rejected and H_3 is accepted, meaning that there is a simultaneous positive and significant influence between Product Quality and Price on Purchasing Decisions at Naufal Optics in Serpong.

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1. INTRODUCTION

Glasses are devices that improve vision through lenses that fit in front of the eyes (Fahriah, 2021). Glasses are used to help the eyes achieve normal vision (Putri & Fahlevi, 2021). Decreased eye function interferes with daily activities and reduces quality of life. If we drive with a negative view without wearing glasses, it will endanger our safety and the safety of others when driving. Seeing with negative eye conditions without glasses also strains our eyes because we are forced to look at

or focus on objects (Solikah & Hasnah, 2022). This condition can also cause redness, pain and headaches in the eyes (Nugroho & Budiman, 2021).

Glasses are not just for problem solving or eye health today. Currently, glasses have entered the fashion sector, and artists who have become models often use them, often wearing glasses just for style, so that currently glasses have many models that are attractive and comfortable to wear. (Khiyaroh, 2020; Masruron & Susani, 2022; Rosa, 2022). Optik Naufal provides glasses of various shapes according to your needs. There are glasses for nearsightedness, glasses for anti-radiation, glasses for fashion so consumers are free to choose which glasses they need.

The number of consumers at Optik Naufal in 2018 was 1375 consumers, in 2019 there were 1271 consumers at Optik Naufal and in the last 3 years, in 2020-2022, Optik Naufal experienced a decline in consumers until the last year, namely 990 consumers. The number of consumers is calculated from consumers and regular customers. Optik Naufal who bought Eye Glasses DLL products. In the last 3 years, Optik Naufal has experienced a decline in the number of consumers, so Optik Naufal needs to know what things influence the decline in sales.

Sales experienced fluctuations, that is, in 2018-2020 sales decreased from 1457 eye glasses - 1002 eye glasses and in 2021-2022 there was an increase in sales from 1005 eye glasses - 1061 eye glasses. Sales experienced ups and downs because the product quality and prices provided by Optik Naufal were still competitive with its consumers. Sales over the 5 years have fluctuated actively. It can be concluded that sales turnover in 2018-2020 saw a slight decrease from IDR 336,450,000-IDR. 294,750,000 sales 3 This year experienced a decline because the product quality and prices provided by Optik Naufal were still competitive with its consumers. But in 2021-2022 there will be an increase of IDR 307,750,000-IDR 317,950,000.

Sales experienced ups and downs due to the large number of other competitors selling similar products with good product quality and offering them at cheaper prices. Therefore, Optik Naufal needs to know how to increase sales every month, what is the impact of the decline in sales.

According to Ihsan & Fatimah, 2018, product quality is the expected level of quality and controlling variation in achieving that quality to meet consumer needs. Poor product quality in the products sold by Optik Naufal will affect the nature of a consumer's purchasing decision, not buying the product offered to him. On the other hand, good product quality in the products sold by Optik Naufal will influence the nature of a consumer's purchasing decision to buy the product offered to him. Therefore, the importance of product quality at Optik Naufal in marketing its products and attracting the attention of consumer purchasing decisions in purchasing the products offered to them.

Apart from product quality, price factors can also influence consumer purchases (Nurfauzi et al., 2023), Price is the amount charged for a product or service (Marlius & Jovanka, 2023). In general, price is the sum of all the values given by a customer to obtain benefits and a sense of ownership of a product or service. The most important element in generating revenue is price, all other elements represent costs (Alimansyah et al., 2022). Prices can change quickly and price is the main factor for buyers in influencing choices, so managers must be able to set prices in order to compete in the market (Kencana, 2019; Rumondang et al., 2020).

Other common mistakes include pricing that is too cost-oriented rather than value-oriented for customers, as well as pricing that does not take other parts of the marketing mix into account, which can result in the company losing money. (Firmansyah et al., 2020; Muslimin et al., 2020; REKI, 2022). Optik Naufal offers more expensive prices compared to Optik Look prices, for Anti Radiation Glasses products, Optik Naufal offers more expensive prices compared to Optik Bunda and for Fashion Glasses Products, Optik Naufal offers more expensive prices compared to Optik Bunda and Optical Look. The difference in prices offered by Optik Naufal and its competitors will affect consumer purchasing levels. The cheaper the price of a product, the higher the level of purchase, and the more expensive the price of a product, the lower the level of purchase, even if it is only a thousand or two thousand rupiah, consumers will still choose the cheaper price but the quality is the same as the more expensive one.

The aim of the research is to test the influence of product quality on the decision to purchase glasses at Optik Naufal in Serpong. To test the influence of price on the decision to purchase glasses at Optik Naufal in Serpong. To test the effect of product quality and price simultaneously on the decision to purchase glasses at Optik Naufal in Serpong.

2. METHOD

2.1 Population and sample

Population is the overall characteristics or properties of subjects or objects that can be drawn as a sample. The population in this research is all consumers who purchased products at Optik Naufal in the 2022 period with a total of 990 consumers. In a study, if the population is considered too large, the author can narrow the population by calculating the sample size using the Slovin technique so that it is representative and the results can be generalized (Sugiyono, 2018: 87). Thus, the determination of the sample size in this study was carried out using a simple calculation using the Slovin formula, with an error rate of 10%, 91 respondents were obtained.

2.2 Instrument Test

In this research, researchers used instrument tests, namely the validity test and reliability test, which compared the calculated r value with the r table. Where the r table value for validity is 0.2061, while the r table for the Reliability Test is 0.600 using Theory According to (Ghozali, 2006)

2.3 Classic assumption test

After the data obtained was valid and reliable, the researcher tested the data using the classic assumption test consisting of normality test, multicollinearity test, autocorrelation test, heteroscedasticity test.

2.4 Multiple Linear Regression Analysis

According to (Sugiyono, 2018) argues "regression analysis is used to predict how the value of the dependent variable will change if the value of the independent variable is increased/decreased". This relationship model is structured in a multiple regression function or equation. After carrying out Multiple Regression analysis, the author tests the Hypothesis either partially or simultaneously.

3. RESULTS AND DISCUSSION

3.1 Test Research Instruments

3.1.1 Validity test

Table 1. Validity test

No	Product quality	Price	Buying decision	R Table	Information
1	0.788	0.776	0.729	0.2061	Valid
2	0.650	0.672	0.669	0.2061	Valid
3	0.735	0.606	0.757	0.2061	Valid
4	0.692	0.743	0.751	0.2061	Valid
5	0.699	0.781	0.684	0.2061	Valid
6	0.713	0.701	0.766	0.2061	Valid
7	0.656	0.664	0.760	0.2061	Valid
8	0.645	0.780	0.680	0.2061	Valid
9	0.579	0.703	0.695	0.2061	Valid
10	0.652	0.693	0.716	0.2061	Valid
11	0.657	-	-	0.2061	Valid
12	0.702	-	-	0.2061	Valid
13	0.672	-	-	0.2061	Valid
14	0.716	-	-	0.2061	Valid
15	0.675	-	-	0.2061	Valid
16	0.646	-	-	0.2061	Valid

Based on the table above, it can be concluded that all variables are declared valid, because r count $>$ r table, and this is in line with theory

3.1.2 Reliability Test

Table 2. Reliability Test

Variable	Cronbach's Alpha	Information
Product quality	0.922	Reliable
Price	0.893	Reliable
Buying decision	0.897	Reliable

Based on the table above, it can be concluded that all statements in the questionnaire are said to be reliable and good so they can be used in this research, this is in line with the theory according to Ghazali (2010:59).

3.2 Classic assumption test

3.2.1 Normality Test

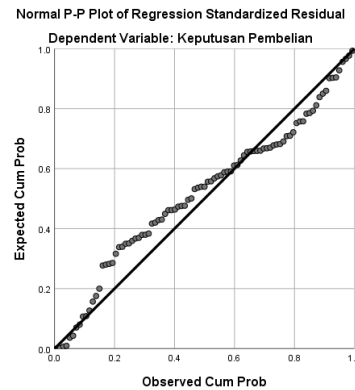


Figure 1. PP Plot Normality Test – Residual Point Scatter Diagram

In the graphic image above you can see that the normal probability plot graph shows a normal graphic pattern. This can be seen from the points spread around the normal graph and the points spread around the diagonal line. With the distribution following the diagonal line, it can be concluded that the regression model is suitable for use because it meets the normality assumption.

3.2.2 Multicollinearity Test

Table 3. Multicollinearity Test Results with Purchasing Decisions as the Dependent Variable

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta				Tolerance	VIF
1	(Constant)	,318	1,382			,230	,819		
	Product quality	,273	,061	,408		4,509	,000	,160	6,262
	Price	,551	,090	,553		6.118	,000	,160	6,262

a. Dependent Variable: Purchase Decision

Source: SPSS 26 Output Attachment

- If the VIF value is above 10 or the tolerance value is below 0.10, multicollinearity occurs.
- If the VIF value is below 10 or the tolerance value is above 0.10, then multicollinearity does not occur.

The results of the multicollinearity test were carried out using SPSS 26 with the following results: In the table above, it shows that the Variance Inflation Factor (VIF) value for the Product Quality (X1) variable is 0.160 and Price (X2) is 0.160, where each independent variable's tolerance value is less than 1 and the VIF value is less than 10, with Thus, in this regression model there is no correlation between independent variables in the equation itself or there is no multicollinearity.

3.2.3 Autocorrelation Test

Next, to determine whether there is autocorrelation, the Durbin-Watson test is carried out with conditions.

Table 4. Autocorrelation Criteria

Criteria	Information
<1	There is Autocorrelation
1.1 – 1.54	No Conclusion
1.55 – 2.46	No Autocorrelation
2.46 – 2.9	No Conclusion
>2.9	There is Autocorrelation

Source: Algifari (2010:88)

The Autocorrelation Test Results are as follows:

Table 5. Autocorrelation Test Results with Durbin-Watson
Model Summary b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.941a	.885	.883	3.102	2,159

a. Predictors: (Constant), Price, Product quality

b. Dependent Variable: Purchase Decision

Source: SPSS 26 Output Attachment

Based on the test results in the table above, this regression model has no autocorrelation interference, this is proven by the Durbin-Watson value of 1.954 which is in the interval (1.55-2.46).

3.2.4 Heteroscedasticity Test

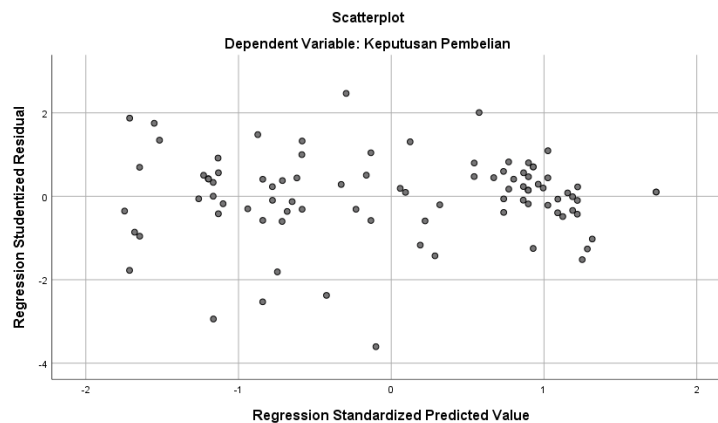


Figure 2. Graph Sketter plot

In the image above, it can be seen that the points on the scatterplot graph do not have a clear distribution pattern and the points are spread above and below the number 0 on the Y axis, thus indicating that there is no heteroscedasticity disturbance.

3.3 Quantitative Analysis

3.3.1 Multiple Linear Regression Analysis

Table 6. Multiple Linear Regression Output Product Quality (X1) and Price (X2) on Purchasing Decisions (Y)

		Coefficientsa				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	Q	Sig.
1	(Constant)	,318	1,382		,230	,819
	Product quality	,273	,061	.408	4,509	,000
	Price	,551	,090	,553	6.118	,000

a. Dependent Variable: Purchase Decision

Based on the results of the regression calculations in the table above, a regression equation of $Y = 0.318 + 0.273X_1 + 0.551X_2$ can be obtained. From the equation above it can be concluded as follows:

1. A constant value of 0.318 means that if the Product Quality (X1) and Price (X2) variables do not exist or are constant or have a value of zero then there is a Purchase Decision (Y) value of 0.318 points.
2. The value 0.273 means that if the constant remains and there is no change in the Price variable (X2), then every 1 unit change in the Product Quality variable (X1) will result in a change in the Purchase Decision (Y) of 0.273 points.
3. The value 0.551 means that if the constant remains and there is no change in the Product Quality variable (X1), then every 1 unit change in the Price variable (X2) will result in a change in the Purchase Decision (Y) of 0.551 points.

3.3.2 Correlation and Determination

Table 7. Coefficient of Determination Test Results

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.941a	.885	.883	3.102

a. Predictors: (Constant), Price, Product quality

If you look at the table, product quality and price have a "very strong" relationship because the interval obtained is 0.800-1.000 based on Sugiyono's theory (2022), apart from that, the coefficient of determination (R Square) obtained is 0.885. This means that 88.5% of purchasing decisions can be explained by variables x1 (product quality) and x2 (price) while the remaining 11.5% of purchasing decisions are influenced by other variables that were not studied.

3.4 Hypothesis testing

3.4.1 Partial Hypothesis

Based on the t table, the value obtained for the t table is obtained 1,972:

- 1) Effect of Product Quality (x1) on Purchasing Decisions: The results of the partial test (t test) between Product quality and Purchasing Decisions show that the t value > t table (21,328>1,987 and sig < 0.05 (0.000 < 0.05) so that Ho is rejected and Ha is accepted, namely "there is an influence of product quality on the decision to purchase glasses at Naufal Diserpong optics"
- 2) Influence of price (x2) on purchasing decisions: The results of the partial test (t test) between price and purchasing decisions show that the t value > t table (23,253>1,987) and sig < 0.05 (0.000 < 0.05) so that Ha is accepted and Ho is rejected, namely "there is an influence of price on the decision to purchase glasses at Naufal Diserpong Optics"

3.4.2 Simultaneous Hypothesis

F test results can be obtained calculated F value > F table, namely 339,260 > 3.10. and sig value < 0.05 or 0.000 < 0.05 "there is an influence of product quality and price on the decision to purchase glasses at Naufal Diserpong Optics"

4. CONCLUSION

Based on the problem formulation and research objectives presented, it can be concluded that: Based on the problem formulation, product quality has a positive and significant influence on purchasing decisions where the calculated t value > t table (21,328>1,987) and sig < 0.1 (0.000 < 0.05). Based on the problem formulation, price has a positive and significant influence on purchasing decisions where the calculated t value > t table (23,253> 1,987) and sig < 0.1 (0.000 < 0.05). Based on the problem formulation, product quality and price have a positive and significant influence on purchasing decisions where the calculated F value > f table is obtained, namely (339,260 > 3.10) and sig value < 0.05 or 0.000 < 0.05.

4.1 Suggestion

Based on the research results obtained, the suggestions that the author wants to convey are: Based on the results of research distributing questionnaires on the product quality variable, namely the portion indicator in statement point 1 "The glasses produced at Optik Naufal are very comfortable to wear" received a score of 3.27, which is the lowest score in this research, so Optik Naufal must pay attention to several factors such as the frame, lens factors and other factors so that consumers are satisfied with eyewear products from Optik Naufal. Based on the results of research on distributing questionnaires on the price variable on indicators on physical evidence, namely in the statement point 1 "The price of Naufal Optical Glasses can be reached by all consumers" received a score of 3.13, which is the lowest score in this research. So the author suggests Optik Naufal adjust prices to the market in order to get prices that suit the aspects, geography and demographics of potential consumers. Based on the results of research distributing questionnaires on the Purchase Decision variable on cognitive indicators (attitudes) in statement point 1 "Consumers Buy Glasses Based on Their Own Desires" received a score of 3.26, which is the lowest score in this research. So Optik Naufal should be more careful when providing recommendations to consumers so that consumers are comfortable and come back again.

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