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## The Influence of Green Products and Green Prices on Customer Satisfaction through Purchasing Decisions as an Intervening Variable

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### ABSTRACT

This study aims to analyze the effect of green products and green prices on customer satisfaction in the bottled water product brand Cleo through purchasing decisions as an intervening variable (a case study on residents of Mejobo District, Kudus Regency). The population of this study were consumers of Cleo brand bottled drinking water among residents of Mejobo District, Kudus Regency, the sample used in this research was 100 respondents using primary and secondary data. The sampling technique used purposive sampling with a structural equation model data analysis method using the AMOS program. The research of results that green products do not affect purchasing decisions. Green price has a positive and significant effect on purchasing decisions. Green products do not affect customer satisfaction. Green price does not affect customer satisfaction. Purchasing decisions have a positive and significant effect on customer satisfaction. Purchasing decisions cannot mediate green products on customer satisfaction. Purchasing decisions cannot mediate green prices on customer satisfaction.

## 1. INTRODUCTION

The increasingly rapid development of the industrial world has resulted in human thought patterns to continue to be oriented towards the industrial revolution which has resulted in business expansion such as factory construction which ignores attention to the environment, triggering environmental damage. Marketers will view environmental issues as an opportunity to satisfy consumer desires and become a threat. Marketers will apply environmental issues as a marketing strategy which has become a phenomenon in the marketing world, namely green marketing (Lestari et al, 2018; Amalia et al., 2021).

Green marketing is a marketing management concept that applies marketing that must be guided by the environment so that it can create marketing tools such as products, promotions, prices, and distribution channels that pay attention to environmental aspects. Mauliza et al. (2019) state that green marketing consists of product modifications, packaging changes, and environmentally friendly process changes. Companies must survive in the face of increasingly competitive competition, so companies are required to have the right green marketing strategy according to consumer needs. Someone will decide to buy a product after seeing the green product and green price. This is expected to optimize consumer satisfaction with a product so that consumers will decide to buy the product.

Based on data from Aspadin (Association of Indonesian Bottled Drinking Water Companies), Indonesian people consume 3094 billion liters of bottled drinking water in 2022 and experience an increase of 10 percent every year along with population growth. The potential for the bottled water industry to continue to grow has led to strong competition between bottled water producers to be able to create product variations supported by good marketing strategies to attract consumer attention. The large number of bottled water brands in Indonesia shows that there is high competitiveness in the bottled water industry. Companies will continue to compete to make their product brands at the top brand index and memorable for consumers.

**Table 1.** Top Brand Index Packaged Drinking Water Category

Brand	Top Brand Indeks
AQUA	55,10%
LE MINERALE	14,50%
ADES	5,30%
CLEO	4,20%
CLUB	3,50%

Source: [www.topbrand-award.com](http://www.topbrand-award.com), (2023)

Bottled water Cleo launched a green product innovation by presenting environmentally friendly packaging called Cleo Eco Green. This innovation comes as a gift for Indonesia as well as Cleo's concern in supporting the government's program to reduce plastic waste. Each Cleo Eco Green bottle is made from 100 percent recycled rPET plastic with food-grade standards from the FDA and BBKK. By collaborating with SOKA, which is a subsidiary of the Tancorp Group, the quality of rPET produced is equivalent to pure plastic pellets. Cleo Eco Green hopes to encourage people to be wiser in managing single-use plastic packaging to reduce environmental pollution (Tanoko, 2021).

The existence of these advantages will not necessarily increase Cleo's sales. Even with the launch of the Cleo Eco Green innovation, the public does not fully believe that Cleo bottled water is an eco-friendly or green product due to the lack of communication and education to customers regarding the advantages and value of Cleo bottled water. The public only knows that bottled water Cleo has a drinking water product with a bitter aftertaste, therefore bottled water Cleo is ranked fourth in the top brand index because people tend to consume drinking water that is fresh and has a sweet taste. Cleo's sales results experienced fluctuations in 2017-2022.

**Table 2.** Sales of Cleo in 2017 – 2022

No	Year	Sales
1	2017	614.678
2	2018	831.104
3	2019	1.088.679
4	2020	972.634
5	2021	1.103.519
6	2022	1.358.708

Source: [idx.co.id/annual-report](http://idx.co.id/annual-report), (2022)

**Green Products** are products that do not cause damage to the environment and natural resources and do not cause pollution. Green products describe products that protect or improve the natural environment, eliminate or reduce toxic agents, pollution, and waste, and energy conservation (Dianti & Paramita, 2021). According to Dianti & Paramita (2021) and Sofwan & Wijayangka (2021) green product indicators are: (a) The product does not contain dangerous elements, (b) Efficiency in energy use, (c) Products from recycled raw materials, (d) Environmentally friendly production technology, and (e) Environmentally friendly packaging.

**Green Price** is premium pricing with increasingly sophisticated technological capabilities in creating environmentally friendly products. Consumers will be able to buy products at a premium price for green products because environmentally friendly products have a more expensive price and the benefits they produce are much greater (Astuti et al., 2021). According to Sofwan & Wijayangka (2021) and Mauliza et al. (2019), the green price indicators are (a) Affordability, (b) Price match with product quality, (c) Matching price with benefits, (d) Price competitiveness, and (e) Price compliance with the production process.

**Customer Satisfaction** is a person's feelings regarding the performance of a product that they feel and expect. Here someone is said to be satisfied if the person's feelings have exceeded or even met their expectations for a product and products offered by the company (Mutia et al., 2021; Prabawa, 2022; Pauzy et al., 2023).

**A purchase Decision** is a consumer's decision to buy a product after previously thinking about whether or not it is worth buying the product, taking into account the information known about the reality of the product after seeing it (Mauliza et al., 2019). Purchasing decision indicators are the goal in buying a product, the stability of the product, the decision about product type, the decision about product form, and the decision about brand (Mutia et al., 2021; Hidayah, 2022, Prabawa, 2022).

The hypothesis developed in this research is:

H1: Green products have a positive and significant effect on purchasing decisions.

H2: Green price has a positive and significant effect on purchasing decisions.

H3: Green products have a positive and significant effect on customer satisfaction.

H4: Green prices have a positive and significant effect on customer satisfaction.

H5: Purchasing decisions have a positive and significant effect on customer satisfaction.

## 2. RESEARCH METHOD

This research uses quantitative methods. Quantitative research is used to analyze data by describing or describing the data that has been collected (Sugiyono, 2019). The object of this research is the Cleo Brand bottled drinking water product with the population in this study being consumers of the Cleo Brand bottled water among residents of Mejobo District, Kudus Regency. The sampling technique in this research is purposive sampling. Purposive sampling is a sampling technique with certain considerations (Sugiyono, 2019). Multivariate measurement is multiplying 5-10 by the number of indicators. The research sample was 100 respondents. The data collection technique used in this research was a survey using a questionnaire with a 1-5 Likert scale. The data analysis technique in this research is descriptive analysis to provide an empirical description or description of the data that has been collected. The analytical method that will be used is the Structural Equation Model with the Amos program.

## 3. RESULTS AND DISCUSSIONS

**Table 3.** Respondent Characteristics

	Characteristics	Frequency	Percentage
Gender	Female	60	60%
	Male	40	40%
	Total	100	100%
Age	17 – 20 Years	17	17%
	21 – 30 Years	63	63%
	31 – 40 Years	6	6%
	> 40 Years	14	14%
	Total	100	100%
Work	Self-Employed	26	26%
	PNS/BUMN	7	7%
	Others	67	67%
	Total	100	100%

Source: Primary data obtained, (2023)

**Table 4.** Convergent Validity Test Results

		Conv. Validity	Result
X1_1 <---	Green_product	.748	Valid
X1_3 <---	Green_product	.739	Valid
X1_4 <---	Green_product	.774	Valid
X2_6 <---	green_price	.719	Valid
X2_7 <---	green_price	.796	Valid
X2_8 <---	green_price	.662	Valid
Y1_11 <---	keputusan_pembeliai	.730	Valid
Y1_13 <---	keputusan_pembeliai	.678	Valid
Y1_15 <---	keputusan_pembeliai	.618	Valid
Y2_16 <---	kepuasan_pelanggar	.833	Valid
Y2_17 <---	kepuasan_pelanggar	.851	Valid
Y2_18 <---	kepuasan_pelanggar	.805	Valid
Y2_19 <---	kepuasan_pelanggar	.641	Valid

Source: Primary data obtained, (2023)

**Respondent Characteristics.** The majority of respondents were women, 60 percent. Characteristics based on the age of respondents are 21-20 years old, 63 percent. Judging from the percentage of jobs, students, traders, laborers, and others are 67 percent. Data will be declared valid if it has a loading factor value equal to

or more than 0.5. So, from the research results, all indicators representing the four variables have a loading factor value of >0.5, meaning that the research indicators are said to be valid.

**Discriminant Validity Test.** The discriminant validity test calculation is carried out by squaring the results in the estimate. This test is a tool to measure the relationship between constructs in the research variables.

**Table 5.** Discriminant Validity Test

	<b>Green Product</b>	<b>Green Price</b>	<b>Purchase Decision</b>	<b>Customer Satisfaction</b>
Green Product	<b>0.754</b>			
Green Price	0.298	<b>0.727</b>		
Purchase Decision	0.226	0.335	<b>0.707</b>	
Customer Satisfaction	0.325	0.427	0.603	<b>0.787</b>

Source: Primary data obtained, (2023)

**Validity Test.** The discriminant validity test results for the five variables are the square root of the overall variance extracted value which is greater than the correlation value between constructs.

**Reliability Test.** The research results can be said to be reliable if the cut-off value for construct reliability has a minimum value of 0.70 (Ghozali, 2017).

**Table 6.** Construct Reliability Test

<b>Variable</b>	<b>Construct reliability</b>	<b>Construct reliability</b>	<b>Result</b>
Green Product (X1)	0.798	0,70	Reliable
Green Price (X2)	0.770	0,70	Reliable
Purchase Decision (Y1)	0,716	0.70	Reliable
Customer Satisfaction (Y2)	0.865	0,70	Reliable

Source: Primary data obtained, (2023)

The results of the construct reliability test for each variable have a value above the Cut Off Value, which means that the four variables above are said to be reliable because they have a value above 0.70.

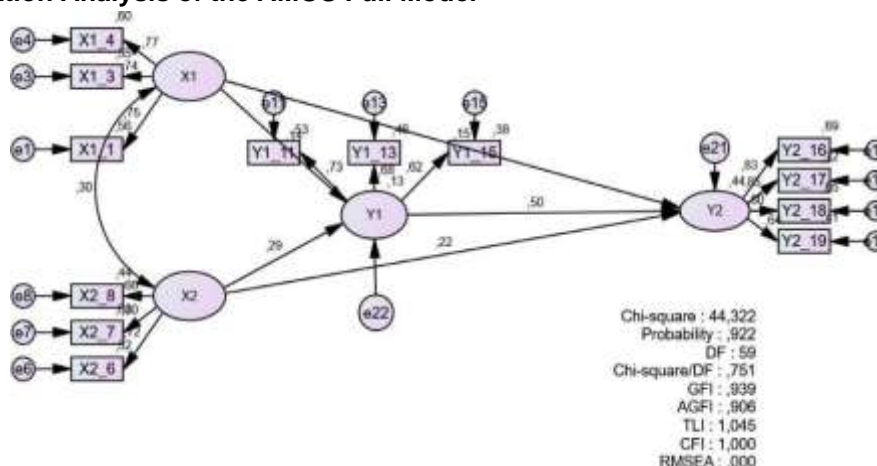
**Table 7.** Normality Test

<b>Variable</b>	<b>Min</b>	<b>Max</b>	<b>Skew</b>	<b>C.R.</b>	<b>Kurtosis</b>	<b>C.R.</b>
Y2_19	1.000	5.000	-474	-1.937	-.658	-1.343
Y2_18	1.000	5.000	-425	-1.737	-.430	-.877
Y2_17	1.000	5.000	-.502	-2.050	-.346	-.706
Y2_16	1.000	5.000	-.694	-2.832	.215	.439
Y1_15	1.000	5.000	-.386	-1.575	-.922	-1.882
Y1_13	1.000	5.000	-.177	-.723	-.714	-1.457
Y1_11	1.000	5.000	-.286	-1.166	-.570	-1.164
X2_8	1.000	5.000	-.771	-3.148	.285	.583
X2_7	1.000	5.000	-.754	-3.077	.109	.222
X2_6	1.000	5.000	-.179	-.732	-1.147	-2.341
X1_4	1.000	5.000	-.948	-3.871	.554	1.131
X1_3	1.000	5.000	-.931	-3.801	1.088	2.222
X1_1	1.000	5.000	-1.678	-6.851	3.632	7.414
Multivariate					7.104	1.799

Source: AMOS data processing results, (2023)

**Normality Test.** The results of the normality test calculations in the critical ratio (CR) column of skew and kurtosis did not find values outside the range of  $\pm 2.58$ , so the research data from the AMOS calculation results used met the data normality requirements and could be said to have been normally distributed.

**CFA test or Confirmatory Factor Analysis  
Structural Equation Analysis of the AMOS Full Model**



**Figure 1.** Results of Structural Equation Modeling Analysis  
Source: AMOS Output, (2023)

**Table 8.** Goodness of Fit Model Test

Goodness of index	Cut-off Value	Results	Information
Chi-square	Hopely small	44,322	Fit
Probability	≥ 0,05	0,922	Fit
RMSEA	≤ 0,08	0,000	Fit
GFI	≥ 0,90	0,939	Fit
AGFI	≥ 0,90	0,906	Fit
CFI	≥ 0,95	1,000	Fit
TLI	≥ 0,95	1,045	Fit
CMIN/DF	≤ 2	0,751	Fit

Source: AMOS Calculation Results, (2023)

The model suitability test shows good acceptance results.

**Hypothesis Testing.** The hypothesis can be accepted if the critical ratio value or C.R > table, namely C.R > 1.96, and probability or P < 0.05

**Tabel 9.** Regression Weights: (Group number 1 – Default model)

			Estimate	S.E.	C.R.	P	Label
Y1	<---	X1	.158	.157	1.006	.314	
Y1	<---	X2	.267	.134	1.992	.046	
Y2	<---	X1	.177	.133	1.332	.183	
Y2	<---	X2	.208	.116	1.793	.073	
Y2	<---	Y1	.524	.139	3.758	***	

Source : AMOS Calculation Results, (2023)

Based on Table 9, the results of hypothesis testing are as follows:

- Effect of Green Products (X1) on Purchasing Decisions (Y1)  
Based on the data from the processing results, it can be seen that the CR < ttable value is 1.006 < 1.96 for CR and the Probability (P) value is 0.314 > 0.05. This value shows results that do not meet the requirements, namely more than 0.05 for the P value and less than 1.96 for the CR value, so H1 in this study is rejected. So it can be concluded that green products have no influence on purchasing decisions.
- Effect of Green Price (X2) on Purchasing Decisions (Y1)  
Based on the results of data processing, it is known that the coefficient value is 0.267, the CR > ttable value is 1.992 > 1.96 for CR and the Probability (P) value is 0.046 < 0.05. This value shows results that meet the requirements, namely less than 0.05 for the P value and more than 1.96 for CR, so that H2 in

this study can be accepted. So it can be concluded that green prices have a positive and significant effect on purchasing decisions.

3. Effect of Green Products (X1) on Customer Satisfaction (Y2)

Based on the data from the processing results, it can be seen that the  $CR > t_{table}$  value is  $1.332 < 1.96$  for CR and the Probability (P) value is  $0.183 > 0.05$ . This value shows results that do not meet the requirements, namely more than 0.05 for the P value and less than 1.96 for the CR value, so H3 in this study is rejected. So it can be concluded that green products have no effect on customer satisfaction.

4. Effect of Green Price (X2) on Customer Satisfaction (Y2)

Based on the data from the processing results, it can be seen that  $CR < t_{table}$ , namely  $1.793 < 1.96$  for CR and the Probability (P) value is  $0.073 > 0.05$ . This value shows results that do not meet the requirements, namely more than 0.05 for the P value and less than 1.96 for the CR value, so H4 in this study is rejected. So it can be concluded that green prices have no effect on customer satisfaction.

5. Effect of Purchasing Decisions (Y1) on Customer Satisfaction (Y2)

Based on the data from the processing results, it can be seen that the  $CR > t_{table}$  value is  $3.758 > 1.96$  for CR and the Probability (P) value is  $0.000 < 0.05$ . This value shows results that meet the requirements, namely less than 0.05 for the P value and more than 1.96 for the CR value, so that H5 in this study can be accepted. So it can be concluded that purchasing decisions have a positive and significant effect on customer satisfaction.

**Effect of Indirect Effect and Total Effect.** Indirect effect or indirect effect is the effect of exogenous variables on endogenous variables through intervening variables, while the total effect is the sum of the direct effects and indirect effects. The magnitude of the indirect effect and total effect from the analysis results can be seen in the following table:

**Table 10.** Indirect Effect and Total Effect Estimation

			<i>Direct Effect</i>	<i>Indirect Effect</i>	<i>Total Effect</i>
Customer Satisfaction	<---	Purchase Decision	,497	,000	
Customer Satisfaction	<---	Green Product	,148	,069	,217
Customer Satisfaction	<---	Green Price	,217	,146	,363

Source: AMOS Calculation Results, (2023)

Based on Table 10, purchasing decisions cannot be a mediating variable for green products on customer satisfaction. Purchasing decisions cannot be a mediating variable for green prices on customer satisfaction.

#### 4. CONCLUSION

The conclusions of this research are as follows: (1) Green products do not influence purchasing decisions for Cleo bottled water products. (2) Green price has a positive and significant effect on purchasing decisions for Cleo bottled water products. (3) Green products do not affect customer satisfaction with bottled water Cleo products. (4) Green price has no effect on customer satisfaction with Cleo bottled water products. (5) Purchasing decisions have a positive and significant effect on customer satisfaction with bottled water Cleo products. (6) Purchasing decisions cannot mediate green products on customer satisfaction with bottled water Cleo products. (7) Purchasing decisions cannot mediate the green price on customer satisfaction with Cleo bottled water products.

The suggestion of this research is as follows: (1) Cleo brand bottled drinking water products should aggressively expand to consumers by showing the benefits and quality of Cleo regarding Cleo bottled water material which is made from 100% environmentally friendly rPET plastic pellets. (2) Cleo brand bottled drinking water products must be able to increase product variety and complete product availability both in quality and size. (3) Cleo brand bottled drinking water products should improve product quality, especially regarding product durability because it is one of the factors that can influence purchasing decisions so that consumer interest in the Cleo bottled water products offered increases.

Suggestions for further researchers of this research are as follows: The advice that can be conveyed is that it is hoped that future researchers will be able to develop and expand the scope of research, as well as add new variables that influence customer satisfaction such as brand awareness, brand image and green advertising so that they can provide a higher index value and can produce a more complete picture. broad regarding the research problem being studied.

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