

## **Analysis of Factors Affecting the Decision to Purchase Mineral Water Le-Minerales in Tangerang City**

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### **ABSTRACT**

This study aims to determine to what extent price, brand image, and product quality affect the increase in purchasing decisions for Le-Minerales mineral water. The research conducted is by distributing questionnaires, while the research method used is by using descriptive methods. In conducting this research the authors used correlation coefficient analysis, multiple linear regression analysis and F test and t test. From the results of the analysis the authors obtained the following results. From multiple linear analysis, the equation  $Y = 5.163 + 0.626X_1 + 0.279X_2 + 0.207X_3$  is obtained. From the results of the F model test, the value is 941,516 where the value is greater than the F table, namely 2.45, thus  $H_0$  is rejected and  $H_a$  is accepted. In the t test, it is known that the t count for Price ( $X_1$ ) is 12,120, the results for Brand Image ( $X_2$ ) are 6,634, and for product quality ( $X_3$ ) is 4,014

**Keywords: Price, Brand Image, Product Quality, Purchase Decision**

## **Preliminary**

The emergence of drinking water products with various brands circulating in the community today has resulted in companies always implementing various marketing strategies in order to survive in the current business competition so that companies are required to be able to create drinking water products that are attractive, healthy, and safe for consumption. A company can become a winner in increasingly fierce business competition if the company is able to attract as many consumers as possible and of course the company can also get large profits according to the goals of the company.

PT Mayora Indah Tbk. is one of the largest companies in Indonesia that produces packaged beverage products with well-known brands such as Le-Minerale Drinking Water, Harum Pucuk Tea, Kopiko78 and others which have been marketed to various regions in Indonesia.

In marketing its products, Le-Minerale Drinking Water strives to maintain its quality so that Le-Minerale can be well received by consumers and get quite a lot of customers. Le-Minerale not only maintains its quality to retain consumers and outperform its competitors, but the company also strives to highlight the characteristics and advantages that Le-Minerale mineral water products can provide, so that it can influence consumers' perceptions to choose Le-Minerale in meeting their needs for healthy drinking water. To understand as well as to influence consumer decisions, companies are trying to improve product quality and Brand Image.

Companies develop marketing strategies about their products by making a number of decisions regarding price, brand image and product quality (Philip Kotler, 2016). The price is right to be marketed and the advertisements used are made as attractive as possible by using top artists as advertisement stars to attract consumer interest. So that consumers can be interested in the products offered by these companies and interested in buying products offered by these companies.

In marketing management, it is said that Brand Image is the spearhead of a product's business activities in order to reach the target market and sell the product. Brand Image must be considered carefully, because Brand Image determines where the product will be marketed (Andy, 2016). In this case, consumers already have certain perceptions or views with their services and relate them to the image and integrity of the product, so it can be said that these consumers have a great value for a product (Brand Image) which is the result of a combination of strategies that are assembled by itself. The ability to maintain relationships in service to meet needs which ultimately plays an important role in the interest in consumer response to the resulting brand image.

The consumer's view of a product is closely related to the quality of the product itself, where quality is one of the factors that a consumer takes into consideration before deciding to buy a product. Product quality is the key for some consumers in choosing a product to meet their needs and desires (Hernawan & Andy, 2018). With today's competitive competition, consumers can freely choose which products to choose. Therefore it is important for a company to be able to continue to maintain and develop the quality of its products in an effort to attract consumer buying interest in the market.

## **Research methods**

This research method is a system or way of working in a systematic field which aims to obtain adequate results in scientific research. In this study the authors used several

research methods which are one way to collect data and information objectively and relevant to facilitate the preparation.

The research method used by the writer is descriptive method, which is a method in examining the status of human groups, an object, a set of conditions, a system of thought, or a class, events in the present. The purpose of this descriptive research is to make research, depictions or paintings systematically, factually and accurately regarding the facts, characteristics and relationships between the phenomena being investigated.

## **Population and Sample**

### **Population**

According to (Sugiyono, 2017) in his book Educational Research Methods states that: "Population is an area of generalization consisting of: objects / subjects that have certain qualities and characteristics determined by researchers to be studied and then draw conclusions."

Population comes from the English word population, which means the number of residents. In the research method, the word population is used to describe a family or group of objects that are the target of the research. Therefore, the research population is the whole object of research which can be humans, plants, air, symptoms, values, events, attitudes to life, and so on, so that these objects can become sources of research data.

### **Sample**

According to (Sugiyono, 2017) that: "The part of the population that you want to study is seen as an estimate of the population, but not the population itself."

According to (Sugiyono, 2017) in his book Quantitative Qualitative Research Methods and R & D, there are several sample sizes, namely as follows:

1. The appropriate sample size in the study is between 30 and 500
2. If the sample is divided into categories (for example: male-female, public-private employees, etc.) then the number of sample members for each category is at least 30
3. If the research will conduct analysis with correlation or multiple regression, the number of sample members is at least 10 times the number of variables studied. For example, there are 5 research variables, then the number of sample members is  $10 \times 5 = 50$
4. For simple experimental research, which uses an experimental group and a control group, the number of sample members is between 10 and 20 respectively.

## ***Results and Discussion***

### ***Research Results Based on Respondent Identification***

The results of this study the authors took several people to be sampled to respond to the questions given by the author regarding the effect of price, brand image, and product quality on the decision to purchase Le-Minerales mineral water in Tangerang City in the form of a questionnaire to 300 respondents.

**Respondents 'Results Against Respondents' Data  
Analysis of the Influence of Price, Brand Image, and Product Quality on Purchasing Decisions of Le-Mineral mineral water in Tangerang City**

To determine whether there is an influence between variable X1 (Price), variable X2 (Brand Image), and variable X3 (product quality) with variable Y (purchase decision) and to measure the strength of this effect, multiple linear regression analysis is used using SPSS calculations. (Statistical Package For Service Softition), the following results of multiple linear regression analysis are as follows:

**Tabel Descriptive Statistics**

	Mean	Std. Deviation	N
Purchase Decision	37.4500	6.82908	300
Price	28.5500	5.82816	300
Brand Image	30.9733	6.68693	300
Product Quality	27.9967	5.54971	300

Source: Source: SPSS Version 20.00

From the table above it can be seen that:

- The mean (average) of the variable Y (purchase decision) with the number of respondents 300 people is 37.4500 with a standard deviation of 6.82908
- The mean (average) of the variable X1 (Price) with the number of respondents 300 people is 28.5500 with a standard deviation of 5.82816
- The mean (average) of the X2 variable (Brand Image) with 300 respondents is 30.9733 with a standard deviation of 6.68693
- The mean (average) of the variable X3 (product quality) with the number of respondents 300 people is 27.9967 with a standard deviation of 5.54971

**Tabel Correlations**

		Purchase Decision	Price	Brand Image	Product Quality
Pearson Correlation	Purchase Decision	1.000	.872	.803	.780
	Price	.872	1.000	.761	.772
	Brand Image	.803	.761	1.000	.732
	Product Quality	.780	.772	.732	1.000
Sig. (1-tailed)	Purchase Decision	.	.000	.000	.000
	Price	.000	.	.000	.000
	Brand Image	.000	.000	.	.000
	Product Quality	.000	.000	.000	.
N	Purchase Decision	300	300	300	300
	Price	300	300	300	300
	Brand Image	300	300	300	300
	Product Quality	300	300	300	300

Source: Source: SPSS Version 20.00

From the table above it can be seen that:

- a. The magnitude of the price effect relationship is indicated by the correlation coefficient value of 0.872 close to 1, where the correlation has a positive and strong influence. The magnitude of the influence of Brand Image is indicated by the correlation coefficient value of 0.803 close to 1, where the correlation has a positive and strong influence. The magnitude of the influence of product quality is indicated by the correlation coefficient value of 0.780 close to 1, where the correlation has a positive and strong influence. So the influence of Price, Brand Image, and Product Quality is strong and has a positive influence. This means that it can be said that the price, brand image, and product quality have an influence on purchasing decisions. The direction of the positive influence relationship shows that the better the price, brand image, and product quality will make purchasing decisions tend to increase. Likewise, on the contrary, the worse the price, brand image, and product quality can reduce the level of purchasing decisions.
- b. The Correlation table shows that: The effect of price, brand image, and product quality can be seen from the probability number of  $0.000 < 0.05$ , which states that if the probability value is <than 0.05, there is a significant influence between the three variables. A significant value of 0.000 shows that the correlation between the three variables is significant, meaning that  $H_0$  is rejected and  $H_a$  is accepted.

**Tabel Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Price	.	Stepwise (Criteria: Probability-of-F-to-enter $\leq .050$ , Probability-of-F-to-remove $\geq .100$ ).
2	Brand Image	.	Stepwise (Criteria: Probability-of-F-to-enter $\leq .050$ , Probability-of-F-to-remove $\geq .100$ ).
3	Product Quality	.	Stepwise (Criteria: Probability-of-F-to-enter $\leq .050$ , Probability-of-F-to-remove $\geq .100$ ).

a. Dependent Variable: Purchase Decision

Source: Source: SPSS Version 20.00

From the table above it can be seen that: according to the stepwise method, it starts by including all the variables then analyzed and the variables that are not eligible for entry into the regression are excluded one by one. Thus the variable Price (X1), Brand Image (X2), and product quality (X3) are input variables (Variable Entered), because the probability of price, brand image, and product quality meets the probability criteria. Where the probability of price, brand image, and product quality is below alpha 0.05.

Testing the significance of this correlation is done by one-sided testing, where the basis for decision making is based on probability. If probability ( $P > \text{Alpha} = 0.05$ ) then  $H_0$  is rejected and  $H_a$  is accepted.

**Tabel Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.872 <sup>a</sup>	.760	.759	3.35407	.760	941.516	1	298	.000
2	.897 <sup>b</sup>	.805	.804	3.02209	.046	70.066	1	297	.000
3	.903 <sup>c</sup>	.816	.814	2.94801	.010	16.114	1	296	.000

a. Predictors: (Constant), Price

b. Predictors: (Constant), Price, Brand Image

c. Predictors: (Constant), Price, Brand Image, Product Quality

d. Dependent Variable: Purchase Decision

Source: Source: SPSS Version 20.00

From the table above it can be seen that:

- Column R for model 1 shows that the correlation coefficient is 0.872. This means that the influence of price on purchasing decisions is strong.
- Column R for model 1 shows the R square number is 0.760 (is the square of the correlation coefficient or  $0.872 \times 0.872 = 0.760$ ). R Square is also called the coefficient of determination. This means that the magnitude of the influence of price on employee purchasing decisions is (76%).
- R Square ranges from 0 to 1, the smaller the R Square number indicates the weaker the relationship between variables and vice versa.
- The Adjusted R Square column for model 1 is as follows: 0.759.
- The Standard Error Of The Estimate column for model 1 is 3.35407
- Note in the table (Descriptive Statistics) above that the standard deviation value of purchasing decisions is 37.4500 which is much greater than the Standard Error Of The Estimate which is only 3.35407
- Column R for model 2 shows that the correlation coefficient is 0.897. This means that the influence between Price and Brand Image on purchasing decisions is strong.
- The R Square column for model 2 shows that the R Square number is 0.804 (is the square of the correlation coefficient or  $0.897 \times 0.897 = 0.804$ ). R Square is also called the coefficient of determination. This means that the magnitude of the influence of Price and Brand Image on purchasing decisions is (80.4%). R Square ranges from 0 to 1, the smaller the number R Square indicates the stronger the relationship between variables and vice versa.
- The Adjusted R Square column for model 2 is 0.805
- The Standard Error Of Estimate column for model 2 is 3.02209

Note in the table (Descriptive Statistics) above that the standard deviation value of employee purchasing decisions is 37.4500 which is much greater than the Standard Error Of The Estimate which is only 3.02209

- a. Column R for model 3 shows that the correlation coefficient is 0.903. this means that the influence between price, brand image, and product quality on purchasing decisions is strong.
- b. The R Square column for model 3 shows that the R Square number is 0.815 (is the square of the correlation coefficient or  $0.903 \times 0.903 = 0.815$ ). R Square is also called the coefficient of determination. This means the magnitude of the effect of Price, Brand Image, and Product Quality on purchasing decisions is equal to (88.8%). R Square ranges from 0 to 1, the smaller the R Square number indicates the stronger the relationship between variables and vice versa.
- c. The Adjusted R Square column for model 3 is 0.814.
- d. The Standard Error Of Estimate column for model 3 is 2.94801.
- e. Note in table 4.56 (Descriptive Statistics) above that the standard deviation value of employee purchasing decisions is 37.4500 which is much greater than the Standard Error Of The Estimate which is only 2.94801.

**Tabel ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10591.823	1	10591.823	941.516	.000 <sup>b</sup>
	Residual	3352.427	298	11.250		
	Total	13944.250	299			
2	Regression	11231.735	2	5615.867	614.895	.000 <sup>c</sup>
	Residual	2712.515	297	9.133		
	Total	13944.250	299			
3	Regression	11371.777	3	3790.592	436.162	.000 <sup>d</sup>
	Residual	2572.473	296	8.691		
	Total	13944.250	299			

- a. Dependent Variable: Purchase Decision
- b. Predictors: (Constant), Price
- c. Predictors: (Constant), Price, Brand Image
- d. Predictors: (Constant), Price, Brand Image, Product Quality

Source: Source: SPSS Version 20.00

From the table above it can be seen that:

- a. From the ANOVA test, it is found that F count for model 1 is 941.516 with a significant level of 0.000 where the number  $0.000 < 0.05$  and also  $F \text{ count} > F \text{ table}$  or  $941.516 > 2.45$ , thus  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a linear influence between the price variable and the purchase decision. then the regression model is feasible and appropriate for predicting purchasing decisions.
- b. From the ANOVA test, it is found that F count for model 2 is 614,895 with a significant level of 0.000 where the number  $0.000 < 0.05$  and also  $F \text{ count} > F \text{ table}$  or  $614.895 > 2.45$ , thus  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a linear influence between the price and brand image variables with purchasing decisions, the regression model is appropriate and appropriate to predict employee purchasing decisions.

- c. From the ANOVA test, it is obtained that F count for model 3 is 436,162 with a significant level of 0.000 where the number  $0.000 < 0.05$  and also  $F \text{ count} > F \text{ table}$  or  $436.162 > 2.45$ , thus  $H_0$  is rejected and  $H_a$  is accepted, meaning that there is a linear influence between the variable Price, Brand Image, and product quality with purchase decisions, the regression model is appropriate and appropriate to predict purchasing decisions.

**Tabel Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.294	.970		8.553	.000
	Price	1.021	.033	.872	30.684	.000
2	(Constant)	6.259	.907		6.901	.000
	Price	.726	.046	.620	15.700	.000
	Brand Image	.338	.040	.330	8.371	.000
3	(Constant)	5.163	.926		5.576	.000
	Price	.626	.052	.534	12.120	.000
	Brand Image	.279	.042	.273	6.634	.000
	Product Quality	.207	.052	.168	4.014	.000

a. Dependent Variable: Purchase Decision

Source: Source: SPSS Version 20.00

From the data above, it can be seen that:

- a. To compile the regression equation from the data above, you can use the values from column B, namely the Unstandardized Coefficients column. From column B this can be a constant value of 5,163, while the value of the coefficient of price is 0.626, the value of the coefficient of Brand Image is 0.279, and the value of the coefficient of product quality is 0.207.
- b. From the coefficient values above, the regression equation is obtained as follows:  
 $Y = a + b_1X_1 + b_2X_2 + b_3X_3$   
 $a = \text{Constant}$   
 $Y = \text{Purchase decision}$   
 $X_1 = \text{Price}$   
 $X_2 = \text{Brand Image}$   
 $X_3 = \text{Product quality}$   
 $b_1, b_2, b_3 = \text{Regression Coefficient}$   
 Then the equation is obtained,  
 $Y = 5.163 + 0.626X_1 + 0.279X_2 + 0.207X_3$   
 $Y = \text{Purchase decision}$   
 $X_1 = \text{Price}$   
 $X_2 = \text{Brand Image}$   
 $X_3 = \text{Product quality}$
- c. When variable  $X_1$  (Price) increases or decreases by 1 point, variable  $Y$  (purchase decision) will increase or decrease by 0.626.



- d. When the X2 variable (Brand Image) increases or decreases by 1 point, Y (purchase decision) will experience an increase or decrease by 0.279.
- e. When the X3 variable (product quality) increases or decreases by 1 point, the Y variable (purchasing decision) will experience an increase or decrease by 0.207.
- f. For multiple regression, the price correlation number is 0.534, the Brand Image correlation number is 0.273, and the product quality correlation number is 0.168 are the results obtained in the Standardized Coefficients (Beta) column.
- g. In the t column, the t test is used to test the truth of the existing hypothesis, done by comparing the calculated t value that has been obtained with the table value. Testing criteria: If  $T_{count} > T_{table}$  then  $H_0$  is rejected and  $H_a$  is accepted. If  $T_{count} < T_{table}$  then  $H_0$  is accepted and  $H_a$  is rejected.
- h. In column t it is known that T for Price (X1) is 12,120 by using the t normal distribution table and using the test confidence level  $(1 - \alpha)$  of 95% and the error rate  $(\alpha) n - 2 = 300 - 4 = 296$ , then the t table distribution value is obtained is 1,990. Because t count for Price is greater than t table value or  $12,120 > 1,990$ , then  $H_0$  is rejected and  $H_a$  is accepted. For the column t count for Brand Image (X2) is 6,634 using the t normal distribution table and using a test confidence level  $(1 - \alpha)$  of 95% and the error rate  $(\alpha) n - 2 = 300 - 2 = 296$ , then the value is obtained. the distribution table t is 1,990. because t count for Brand Image is greater than t table value or  $(6,634 < 1,990)$ , then  $H_0$  is rejected and  $H_a$  is accepted. Whereas for the column t count for product quality (X3) is 4,014 using the t normal distribution table and using a test confidence level  $(1 - \alpha)$  of 95% and the error rate  $(\alpha) n - 2 = 300 - 2 = 296$ , it is obtained t table distribution value is 1,990. because t count for product quality is greater than the value of t table or  $(4.014 > 1.990)$ , then  $H_0$  is rejected and  $H_a$  is accepted.
- i. The sig column is used for probability testing. Testing criteria: If the probability  $> 0.05$  then  $H_0$  is rejected and  $H_a$  is accepted If the probability  $< 0.05$  then  $H_0$  is accepted and  $H_a$  is rejected
- j. Seen in the sig column, it is known that the probability value of Price is 0.000, the probability value of Brand Image is 0.000, the probability value of product quality is 0.001, thus the probability is below 0.05, thus  $H_0$  is rejected and  $H_a$  is accepted or the regression coefficient is significant or Price, Brand Image, and Product Quality have an effect. against purchasing decisions.

## Conclusion

Based on the results of research analysis and discussion that has been carried out at the Directorate General of Hindu Community Guidance at the Ministry of Religion of the Republic of Indonesia, the authors draw the following conclusions:

1. Price Positively and significantly influences purchasing decisions. The calculation result of the coefficient of determination ( $R^2$ ) is 0.872, this means that the magnitude of the effect of price on purchasing decisions is 87.2% and the remaining 12.8% is influenced by other factors.
2. Brand Image Positively and significantly influences purchasing decisions. The calculation result of the coefficient of determination ( $R^2$ ) is 0.897, this means that the influence of brand image on purchasing decisions is 89.7% and the remaining 10.3% is influenced by other factors.

3. Product quality Positively and significantly influences purchasing decisions. The calculation result of the coefficient of determination ( $R^2$ ) is 0.903, this means that the influence of product quality on purchasing decisions is 90.3% and the remaining 9.7% is influenced by other factors.

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