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The Influence of Viral Marketing and Celebrity Endorser on Purchase Decisions on Scarlett Whitening Products: Case study on Widyatama Female Students

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Abstract

The purpose of this study is to examine and identify the ways in which viral marketing and celebrity endorsement of Scarlett Whitening products affect consumer choice. The writers hope to be able to provide readers with new knowledge and advice about how to select goods that will spark their interest for purchase, especially those that are related to the issue under investigation. 150 female Widyatama respondents were used as a sample in this study. The sample approach used in this study is non-probability sampling. The type of non-probability sampling process chosen is called purpose sampling, which has significant considerations. The study's data came from primary sources. Data was gathered through distributing questionnaires. The descriptive and assessed quantitative methods of this study
Keywords: Viral Marketing, Celebrity Endorser, Purchase Decision

INTRODUCTION

Current business development is influenced by aspects that follow developments in the surrounding area. Consumers at this time are faced with various product choices to then decide which one or what to buy, while the industry is faced with a problem that is not easy, namely competition. Based on the descriptions above, the researcher is interested in conducting research entitled " THE INFLUENCE OF VIRAL MARKETING AND CELEBRITY ENDORSER ON PURCHASE DECISIONS ON SCARLETT WHITENING PRODUCTS (case study on Widyatama female students)".

FORMULATION OF THE PROBLEM

Based on the background and problem formulation that has been described previously, the scope of the problem is as follows:

- Does viral marketing affect purchasing decisions on Scarlett Whitening products?
- Will the celebrity endorser affect the purchasing decision on Scarlett Whitening products?
- Is there a mutual influence between Viral marketing and celebrity endorsers on purchasing decisions on Scarlett Whitening products?

LITERATURE REVIEW

Viral Marketing

According to Kotler & Keller, (2016: 538) Digital marketing can be done through web sites, social media, mobile apps and ads, online videos, electronic mail, and blogs that can attract customers anywhere, anytime through their digital devices.

Celebrity Endorser

According to Aprilia and Hidayati (2020) Celebrity endorsers are someone who can be called an artist or considered a person who stars and supports advertisements as an electronic medium, starting from social media and television which is known by the public and idols.

Purchase Decision

According to Awaludin and Sukmono (2020) Purchasing decisions are the actions of a consumer wanting to buy or not a desired item or service, this phase also indicates the steps for making a purchase decision which shows if a customer is shopping.

FRAMEWORK

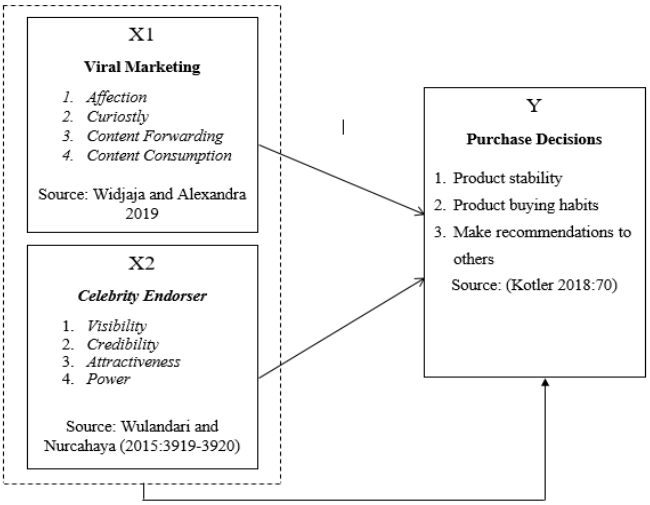

Figure 1. Thinking Framework

RESEARCH HYPOTHESIS

Ho: Viral marketing variables have a significant effect on product purchasing decisions.
H1: The celebrity endorser variable has a significant effect on product purchasing decisions scarlett.
H2: Viral marketing and celebrity endorser variables have a significant effect on Scarlett Product Purchase Decision

RESEARCH METHODS

Types of research

The type of research used in this research is descriptive research. Descriptive research is research that aims to describe a situation, condition, or phenomenon that occurs. According to Hamid Darmadi (2013: 186) the descriptive method is: "The descriptive method is a research method that seeks to describe and interpret objects according to what they are."

Research Model

This research approach uses a quantitative approach which is descriptive because it uses numbers, starting from data collection, interpretation of the data, and the appearance of the results. It is described by deductions that depart from general theories, and then by observation to test the validity of the applicability of the theory conclusions are drawn.

Population and Sample

Population is the scope or characteristic of all the objects studied. The population as a generalization area consisting of objects/subjects that have certain qualities and characteristics that are formalized by a researcher to be used for study so that conclusions will then be drawn for the final results. The sampling technique in this study used a non-probability sampling technique. The type of non-probability sampling technique chosen is purposive sampling, which is a sampling technique with certain considerations.

Research variable

In this study there are two independent variables (X1) and (X2) and one dependent variable (Y). The independent variables in this study are Viral Marketing (X1) and Celebrity Endorsers (X2).

Data And Data Sources

The data used in this study are primary data obtained from the results of a questionnaire or questionnaire from Widyatama University students. Questionnaires were distributed via Google form or e-mail, social media (example: Instagram, whatsapp, Line) and shared questionnaire links online.

Research Instruments

Research instruments are used in research to measure the values of the variables studied. The instrument used in this study is a questionnaire / questionnaire.

Operational Variables

In this study, the variables used were the independent variables, namely Viral Marketing (X1), Celebrity Endorser (X2) and the dependent variable, namely Purchase Decision (Y). The explanation of each variable is as follows:

Variable X1 viral marketing

The instrument used is viral marketing which is a digital version of word-of-mouth marketing, including the creation of videos, advertisements and other marketing content that is so contagious that customers will search for it or share it with friends.

Variable X2 celebrity endorser

The instrument used is a celebrity endorser, which is an icon or a certain form that is often also called someone who can directly deliver messages and present a product or service in promotional activities aimed at supporting the effectiveness of delivering product messages.

c) Variable Y Purchase Decision

The instrument used is the purchase decision obtained from the results of the questionnaire given to at least 150 respondents who are domiciled in Bandung.

Data Analysis Technique

Multiple linear regression test

Multiple linear regression analysis was used to find out how much influence simultaneously (together) the variables virak marketing ($X1$), celebrity endorser ($X2$), and purchasing decisions on Scarlett Whitening (Y) products.

Validity test

Validity test can be done using the product moment correlation technique to calculate the correlation between each statement and the total score. This is done to find out which statements are valid and which are not.

Reliability Test

The reliability test aims to determine the extent to which a measuring instrument that has been declared valid obtains consistent results when measurements are made two or more times. This reliability test was carried out using the help of IBM SPSS software.

Classic assumption test

According to Purnomo (2017: 107) The classical assumption test is used to determine whether there is residual normality, multicollinearity, autocorrelation and heteroscedasticity in the regression model.

Normality test

According to Machali (2015) the normality test is carried out using the Kolmogrov-Smirnov test.

Autocorrelation Test

According to Ghozali (2018; 111) the autocorrelation test aims to test that in a linear regression model there is a correlation between the confounding error in period t and the error in period t-1 (previous). If there is a correlation, then there is called an autocorrelation problem.

Heteroscedasticity Test

Heteroscedasticity is the presence of variance of the residuals for all observations in the regression model.

Multicollinearity Test

Multicollinearity can be known from the tolerance value and Variance Inflation Factor (VIF). If the tolerance value is greater than 0.1 and the VIF value is less than 10, then the regression is free from multicollinearity.

Hypothesis testing

Hypothesis testing was carried out to determine whether there was or was not the influence of viral marketing ($X1$), celebrity endorsers ($X2$), on purchasing decisions (Y), simultaneously and partially. The hypothesis test for this correlation is formulated with the null hypothesis (H0) and the alternative hypothesis (H1).

Simultaneous Test (Test F)

The F test in multiple linear regression analysis aims to determine the effect of the independent variables simultaneously, which is shown in the ANOVA (Analysis of Variance) table using a significance level of α = 0.05 (Basuki, 2015).

Partial Test (t test)

The t test aims to see how far the influence of one independent variable individually explains the variation of the dependent variable.

RESULTS AND DISCUSSION

The method in this research is a type of quantitative research. More precisely, this research model uses a descriptive quantitative approach. This research approach uses a quantitative approach which is descriptive because it uses numbers, starting from data collection, interpretation of the data, and the appearance of the results. In this study the authors processed the data in the form of a questionnaire consisting of 4 statements for the viral marketing variable (X1), 4 statements for the celebrity endorser variable (X2), and 5 statements for the purchase decision variable (Y). The questionnaire that was distributed was given to 150 Widyatama University students.

Respondent Identity

It is known that indeed 100% of respondents who were female or only Widyatama University students answered the questionnaire or questionnaire distributed by the researcher. Most of the ages in this study were aged 21-23 years with a percentage of 72.7% or as many as 109 female students followed by 26% of female students aged 17-20 years or as many as 39 female students and the remaining 2 female Widyatama students aged 24-27 years or about 1.3%.

Validity Test

Table 1. Validity test

Pertanyaan	rhitung	rtabel	V/T
X1.1	0.528	0.160	VALID
X1.2	0.733	0.160	VALID
X1.3	0.630	0.160	VALID
X1.4	0.599	0.160	VALID
X2.1	0.567	0.160	VALID
X2.2	0.452	0.160	VALID
X2.3	0.570	0.160	VALID
X2.4	0.501	0.160	VALID
Y1	0.856	0.160	VALID
Y2	0.786	0.160	VALID
Y3	0.900	0.160	VALID
Y4	0.850	0.160	VALID
Y5	0.892	0.160	VALID

From the results of the validity test in the table above, the questionnaire containing these 3 variables consisted of 13 indicators which had been filled in by 150 respondents in this study. One way to find out which questionnaires are valid and which are invalid, researchers must find out the r tables first. The formula for r table is df = N-2 so 150-2 = 148, so r table = 0.160. From the results of the validity calculation in the table above, it can be seen that the r count > r table, it can be concluded that the 13 questionnaire indicators are declared valid because r count is greater than r table.

Reliability Test

Table 2. Reliability test results on viral marketing variables (X1), celebrity endorser (X2), purchase decision (Y)

No	Variabel	*N of items*	*Cronbach's Alpha*	*'kritis*	kriteria
1.	viral marketing	4	0,662	0,60	Reliabel
2.	*celebrity endorser*	4	0,619	0,60	Reliabel
3.	keputusan pembelian	5	0,716	0,60	Reliabel

The reliability of the viral marketing variable obtained the Cronbach's Alpha value of 0.662 > 0.60, so it can be concluded that the questions for the viral marketing variable are reliable or consistent. Likewise, with the celebrity endorser variable reliability test, the results obtained were reliable or consistent with Cronbach's Alpha value of 0.619 > 0.60. In the reliability test with the purchase decision variable, the Cronbach's Alpha value was 0.716 > 0.60 so it can be concluded that the questions for the purchase decision variable are reliable or consistent and can be used in analysis

Normality Test

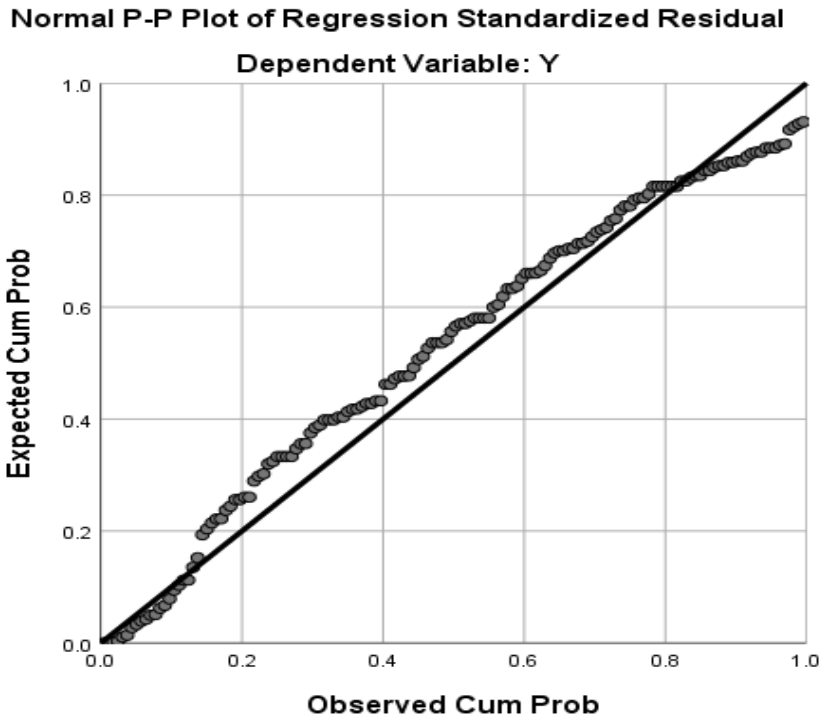

Figure 2. Graph of P-P Plot of regression standardized residual

It can be seen from Figure 2 that the results in the P-P Plot normality test produce a diagonal line and the dots spread around the line and follow the diagonal line, so it can be said that the pattern is normally distributed.

Test One sample Kolmogorov Smirnov

Table 3. One-Sample Kolmogorov-Smirnov test

		Unstandardized Residual
N		150
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.63241812
Most Extreme Differences	Absolute	.085
	Positive	.080
	Negative	-.085
Test Statistic		.085
Asymp. Sig. (2-tailed)		.009[c]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

The value of Asymp can be concluded from table 3. Sig 0.09 > 0.05 which means it is normally distributed

Autocorrelation Test

Table 4. Autocorrelation Test Results

Runs Test

	Unstandardized Residual
Test Value[a]	.56326
Cases < Test Value	75
Cases >= Test Value	75
Total Cases	150
Number of Runs	66
Z	-1.639
Asymp. Sig. (2-tailed)	.101

a. Median

The value of Asymp sig is known. (2-tailed) of 0.101 > 0.05, it can be concluded that there are no signs of autocorrelation, so that the multiple linear regression analysis can be continued.

Heteroscedasticity Test

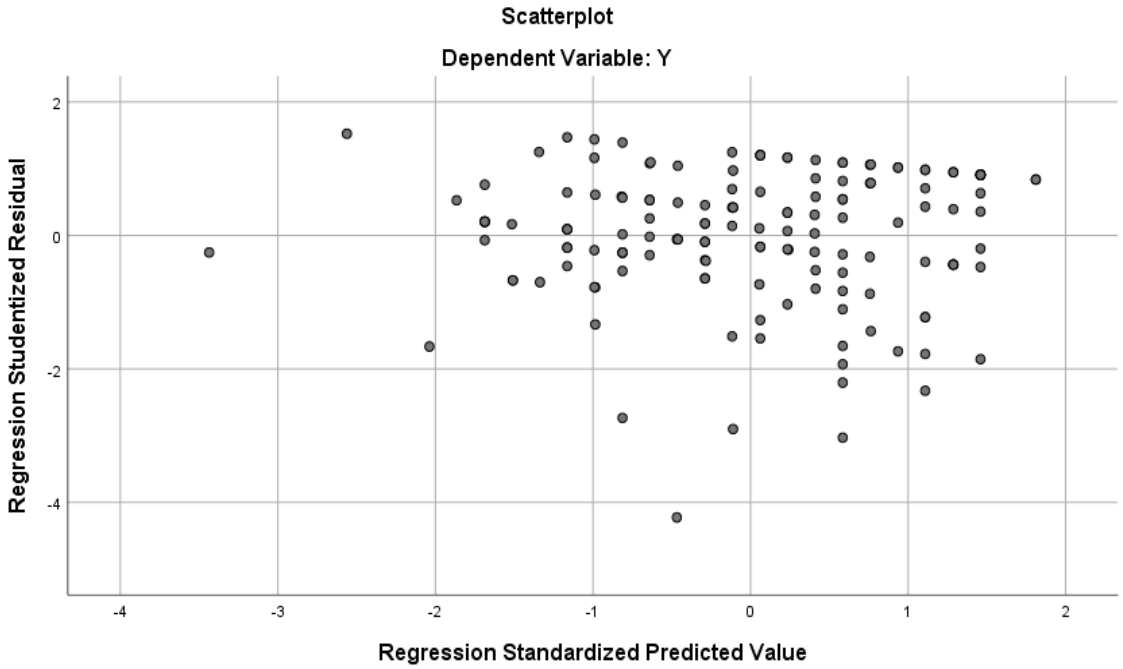

Figure 3. Scatterplots graph

Based on the scatterplot graph in Figure 3, it can be seen that the points spread randomly and are scattered, both above and below the number 0 on the Y axis. So, it can be concluded that there is no heteroscedasticity in the regression model and the regression model is feasible to use.

Multicollinearity Test

Table 5. Multicollinearity Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8.339	4.707		1.772	.079		
	X1	.409	.228	.150	1.789	.076	.925	1.081
	X2	.274	.206	.112	1.331	.185	.925	1.081

a. Dependent Variable: Y

Judging from the table above the results of the multicollinearity test results for a tolerance value of 0.925 and a VIF value of 1.081, which means that both indicate that multicollinearity does not occur.

Multiple Linear Regression Analysis

Table 6. Results of Multiple Linear Regression Analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.339	4.707		1.772	.079
	Viral Marketing (X1)	.409	.228	.150	1.789	.076
	Celebrity Endorser (X1)	.274	.206	.112	1.331	.185

a. Dependent Variable: Keputusan Pembelian

Based on the multiple linear regression equation above, it shows that:

- A value of 8,339 is a constant or a state when the purchasing decision variable has not been influenced by other variables, namely, viral marketing (X1) and celebrity endorser (X2) variables. If the independent variable does not exist, the purchase decision variable does not change.
- The value of b1 (regression coefficient value X1) is 0.409, indicating that the viral marketing variable has a positive influence on purchasing decisions, which means that every increase of 1 price variable will affect purchasing decisions by 0.409, assuming that other variables are not examined in this study.
- The value of b2 (regression coefficient value X2) is 0.274, indicating that the celebrity endorser variable has a positive influence on purchasing decisions, which means that every increase of 1 price variable will affect the purchase decision by 0.274, assuming that other variables are not examined in this study.

Coefficient of Determination

Table 7. Results of the Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.210[a]	.044	.031	3.65704

a. Predictors: (Constant), Celebrity Endorser (X1), Viral Marketing (X1)

Based on the results of testing the coefficient of determination in table 7, it shows that the value of R (correlation coefficient) is 0.210 or 21%, which means that the viral marketing variable (X_1) and the celebrity endorser variable (X_2) have an effect on purchasing decisions (Y) by 21% and the remaining 79% is influenced by other factors.

Simultaneous Test (Test F)

Table 8. F test results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156.180	2	78.090	6.040	.003[b]
	Residual	1900.513	147	12.929		
	Total	2056.693	149			

a. Dependent Variable: Keputusan Pembelian

b. Predictors: (Constant), Celebrity Endorser, Viral Marketing

Based on the results of hypothesis testing (F-test) in table 8 shows that the probability value is 0.003 <0.05, meaning that the viral marketing variable (X1) and the celebrity endorser variable (X2) simultaneously influence the purchasing decision variable (Y).

Partial Test (T Test)

Table 9. T test results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.289	4.131		1.764	.080
	Viral Marketing	1.709	.591	.231	2.894	.004
	Celebrity Endorser	.309	.196	.126	1.578	.117

a. Dependent Variable: Keputusan Pembelian

The test criteria for the t test are if t count ≥ t table (t count is greater or equal to t table), then Ha is accepted and Ho is rejected. Meanwhile, if t count ≤ t table (t count is smaller or equal to t table) then Ho is accepted and Ha is rejected. The value of the T table in the t test research is 1.98623 or 1.97 then:

- 2.89 > 1.97 means that Viral Marketing (X1) has a partial effect on Purchase Decisions on Scarlett Whitening Products (Y)
- b) 1.57 < 1.98 means that the Celebrity Endorser (X2) has no partial effect on the Purchase Decision on Scarlett Whitening Products (Y)

Multiple Linear Regression Analysis

Table 10. Results of multiple linear regression analysis

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.339	4.707		1.772	.079
	Viral Marketing (X1)	.409	.228	.150	1.789	.076
	Celebrity Endorser (X1)	.274	.206	.112	1.331	.185

a. Dependent Variable: Keputusan Pembelian

Based on the multiple linear regression equation above, it shows that:

- A value of 8,339 is a constant or a state when the purchasing decision variable has not been influenced by other variables, namely, viral marketing variables (X1) and celebrity endorsers (X2). If the independent variable does not exist, the purchase decision variable does not change.
- The value of b1 (regression coefficient value X1) is 0.409, indicating that the viral marketing variable has a positive influence on purchasing decisions, which means that every increase of 1 price variable will affect the purchase decision by 0.409, assuming that other variables are not examined in this study.
- The value of b2 (regression coefficient value X2) is 0.274, indicating that the celebrity endorser variable has a positive influence on purchasing decisions, which means that every increase of 1 price variable will affect the purchase decision by 0.274, assuming that other variables are not examined in this study

Coefficient of Determination

Table 11. Results of the Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.210[a]	.044	.031	3.65704

a. Predictors: (Constant), Celebrity Endorser (X1), Viral Marketing (X1)

Based on the results of testing, the coefficient of determination in table 11 shows that the value of R (correlation coefficient) is 0.210 or 21%, which means that the viral marketing variable (X_1) and the celebrity endorser variable (X_2) affect the purchase decision (Y) by 21% and the remaining 79% is influenced by other factors.

Simultaneous Test (Test F)

Table 12. F test results

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	156.180	2	78.090	6.040	.003[b]
	Residual	1900.513	147	12.929		
	Total	2056.693	149			

a. Dependent Variable: Keputusan Pembelian

b. Predictors: (Constant), Celebrity Endorser, Viral Marketing

Based on the results of hypothesis testing (F-test) in table 12 shows that the probability value is 0.003 <0.05, meaning that the viral marketing variable (X1) and the celebrity endorser variable (X2) simultaneously influence the purchasing decision variable (Y).

Partial Test (T Test)

Table 13. T test results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.289	4.131		1.764	.080
	Viral Marketing	1.709	.591	.231	2.894	.004
	Celebrity Endorser	.309	.196	.126	1.578	.117

a. Dependent Variable: Keputusan Pembelian

The test criteria for the t test are if t count ≥ t table (t count is greater or equal to t table), then Ha is accepted and Ho is rejected. Meanwhile, if t count ≤ t table (t count is smaller or equal to t table) then Ho is accepted and Ha is rejected. The value of the T table in the t test research is 1.98623 or 1.97 then:

- 2.89 > 1.97 means that Viral Marketing (X1) has a partial effect on Purchase Decisions on Scarlett Whitening Products (Y)
- 1.57 < 1.98 means that Celebrity Endorser (X2) has no partial effect on Purchase Decisions on Scarlett Whitening Products (Y)

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

- The results show that partially viral marketing (X1) has a significant and positive effect on purchasing decisions on Scarlett Whitening Products (Y). This is evidenced by the value of Sig. 2.89 > 1.97 means that there is a significant and positive influence on viral marketing and purchasing decisions if t count ≥ t table.
- The results show that partially celebrity endorser (X2) has no significant and positive effect on purchasing decisions on Scarlett Whitening Products (Y). This is evidenced by the value of Sig. 1.57 <1.98 means that there is no significant and positive effect on viral marketing and purchasing decisions because the value of t count ≤ t table.
- The results of the study show simultaneously that the viral marketing variable (X1) and the celebrity endorser variable (X2) have a significant and positive effect on purchasing decisions on Scarlett Whitening products (Y). This is evidenced by the probability value of 0.003 <0.05, which means that viral marketing (X1) and the celebrity endorser variable (X2) simultaneously influence the purchasing decision variable (Y).
- Viral marketing carried out by Scarlett Whitening is in a very good category. This is evidenced by the average score of the indicator which is very good. That way, overall respondents considered that the viral marketing carried out by Scarlett Whitening was perceived very well by consumers.
- The Celebrity Endorser, conducted by Scarlett Whitening, is in a very good category. This is evidenced by the average score of the indicator which is very good. That way, overall

respondents considered the selection of K-pop group Twice as a celebrity endorser by Scarlett Whitening to be felt very well by consumers.

- Scarlett Whitening's purchase decision is in a good category. This is evidenced by the average score of indicators that are good. That way, overall the respondents considered that there was a good opportunity in the decision to buy Scarlett Whitening products.

Recomendation

- Viral Marketing

Based on the respondent's data, the viral marketing carried out by Scarlett Whitening has been very good, judging by the frequency with which people see Scarlett Whitening's advertising content and the content posted by Scarlett Whitening has received many likes and the messages/invitations on Scarlett Whitening's social media accounts are easy to remember. & fun so that it inspires people to follow and recommend it to others and attracts people to buy their products. It is hoped that Scarlett Whitening can maintain its viral marketing strategy.

- Celebrity Endorser

Based on respondent data, the Scarlett Whitening strategy of using a K-Pop group of women from South Korea consisting of 9 members as celebrity endorsers of Scarlett Whitening products, namely TWICE, has no significant and positive effect on purchasing decisions. As for suggestions that can be made in this study, Scarlett Whitening should change or replace celebrities as product endorsers and choose celebrity endorsers who have the potential to increase purchasing decisions on Scarlett Whitening products.

- Purchasing Decision

Based on the respondent data, a purchase decision variable for Scarlett Whitening products is in the very good category. It is hoped that Scarlett Whitening will be able to maintain and increase the buying interest of its consumers so that they can get continuous profits that make their business grow.

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