

ANALYSIS OF IMPACT OF PRODUCT PACKAGING ON PURCHASE DECISION WITH CONSUMER BEHAVIOR AS INTERVENING VARIABLE (STUDY ON SALVAGE SUPPLY CO.)

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ABSTRACT

The aim of the study is: 1) To evaluate the impact of product packaging on Salvage Supply Co's purchase decision. 2) To evaluate the impact of product packaging on Salvage Supply Co's consumers' behavior. 3) To evaluate consumers' behavior's impact on Salvage Supply Co's consumers' purchases decisions. The study type is explanative research using quantitative approach. Population used was 200 consumers; therefore number of sample used was 40 consumers. The data collection method used was through analysis of questionnaire using SPSS and path analysis with two models was used to analyze this study. The results of the study showed that 1) Product packaging has a positive and significant impact on Salvage Supply Co's purchase decision, and therefore the first hypothesis that states product packaging have positive and significant impact on Salvage Supply Co.'s purchase decision is accepted. 2) Product packaging has positive and significant impact on Salvage Supply Co.'s consumers' behavior, and therefore the second hypothesis that states product packaging has positive and significant impact on Salvage Supply Co.'s consumers' behavior is accepted. 3) Consumers' behavior has a positive and significant impact on Salvage Supply Co.'s purchase decision, and therefore the third hypothesis that states consumers' behavior has a positive and significant impact on Salvage Supply Co.'s purchase decision is accepted.

Keywords: Product Packaging, Consumer behavior, Purchase Decision

INTRODUCTION

Denim refresher is a refresher product for maintenance of denim that can't be washed often. However, since denim can't be too often washed, bacteria can appear and cause infection on skin. Denim refresher is useful to remove odor from denim and to kill bacteria even without washing. The market for the product consists of denim lovers and therefore middle and middle upper segmentations are the target segments. Since February 2018, there are fluctuations in sales, from significant drops to significant increases. Consumer behavior has various definition, one of which is definition of consumer behavior according to Schiffman (2013:46) which is:

Consumer behavior illustrates have individuals make decisions to make use of their existing resources (time, money, effort) in order to purchase goods related to consumption.

Kotler (2012:226) stated consumer behavior indicators such as 1) product and service; 2) price; 3) product distribution and 4) communication. Studying the factors affecting consumer behavior can result in suggestions on the correct strategy so that sales can be maximized and can also be reference for marketers to develop their existing products. According to Setiadi (2014:415) consumer's decision-making is a process of integration that combines the knowledge to evaluate two or more alternative behaviors, and choosing one among them.

Study by Susetyarsi (2014) aimed to study product packaging from packaging material, packaging

shapes and package labeling and its impact on purchase decision on Mizone products in Semarang city. Variables studied were packaging material, packaging shapes package labeling and purchase decision. In the study, quantitative method was used with regression analysis technique, determination coefficient and F-test with the help of SPSS program. Study results show that the three variables, which were packaging material, packaging shapes, package labeling, have impact on purchase decision. Therefore from the results above, this study suggests the following hypotheses:

H1 : Product packaging have impact on Salvage Supply Co.'s consumers' purchases decisions.

H2 : Product packaging have impact on Salvage Supply Co.'s consumers' behavior.

H3 : Consumer behavior have impact on Salvage Supply Co.'s consumers' purchases decisions

The type of research is explanative research using quantitative approach. According to Sugiyono in Illah (2013), study based on explanative research is aimed to explain the levels of each variables studied and the relationship between one variable and another. Population in this study is Salvage Supply Co. customers during the period of October 2017 until June 2018, with a total of 200 customers. Sample collection technique used was simple random sampling. Using calculation by Slovin formula, it was known that during the period of October 2017- June 2018, customers that made purchases in Salvage Supply Co. are 200 customers in total. Therefore, the sample used was 40 customers.

Validity test is used to determine whether a questionnaire is valid or invalid (Sugiyono, 2014). Pearson Correlation can be used to determine the validity of the questionnaire item by evaluating which questions in the questionnaire fulfilled the criteria of having sig value < 0.05 , and therefore that item in the questionnaire is deemed valid. Sujarweni (2014) mentioned that reliability of a variable can be determined by evaluating the questions as a whole, and if the statistical test result of the Cronbac Alpha value > 0.6 , therefore the variable is deemed reliable. If the validity test shows sig value < 0.05 and reliability test shows Cronbach Alpha $> 0,6$ then the dependent and independent variables are deemed valid and reliable and therefore further analysis can be conducted. This study also used path analysis. Path analysis is an expansion of multiple linear regression analysis (Ghozali, 2013). Path analysis is used to test the effect of intervening variable in this study. The result of the path analysis test will also be used to compare which effect is stronger between direct effect and indirect effect, and also to draw conclusion as to whether the existence of the intervening variable can strengthen or even weaken the effect of independent variable on dependent. Mediation hypothesis testing can be done using the procedure developed by Sobel (1982), which is also known as Sobel Test (Kline, 2013: 164). Sobel test is a test to determine whether the relationship through an intervening variable can significantly intervene in the relationship.

Testing method on the hypothesis proposed in this study are simultaneous test, partial test, and determination coefficient analysis. In this study there were 5 classic assumption tests used, which are normality test, multicollinearity test, heteroschedasticity test and autocorrelation test.

Overall, the statements in the variables purchase decision, product packaging, and consumer behavior has correlation value with significance level lower than 5% (0.05) and therefore can be concluded as valid. All variables used in this study have Cronbach Alpha value higher than 0.6 and therefore the questionnaire used in this study can be concluded as reliable.

Based on the data processing result showed by the path analysis, the regression equation below can be obtained:

$$Z = 0.438 X + 0.385 Y. \text{ Whereby the value of } e^1 \text{ is:}$$

$$e^1 = \sqrt{1 - 0.508} = 0.701$$

And therefore the following path diagram can be obtained:

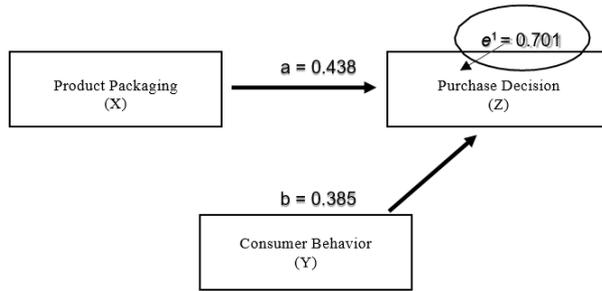


Figure 1 Path Diagram Result from Data Analysis

Source: SPSS Processing, 2018.

Based on the data processing result showed in the path analysis results table, the following regression equation can be obtained :

$$Y = 0.499 X. \text{ Whereby the value of } e^2 \text{ is:}$$

$$e^2 = \sqrt{(1 - 0.508)} = 0.866$$

And therefore the following path diagram can be obtained:

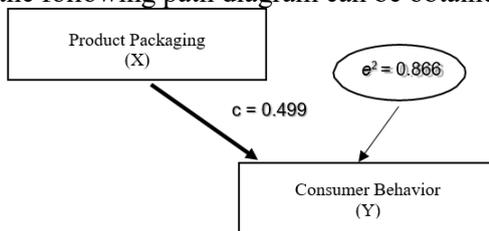


Figure 2 Study Path Diagram

Source: SPSS Processing, 2018.

From the regression results table, it shows that the regression coefficient value of Product Packaging on Consumer Behavior is 0.539 with standard error of 0.152 and significance value of 0.001, and for Consumer behavior the coefficient value is 0.465 with standard error of 0.161 and significance value of 0.006. Therefore, Product Packaging have significant and direct impact on Purchase Decision, as with Consumer Behavior that has significant and direct impact on Purchase Decision.

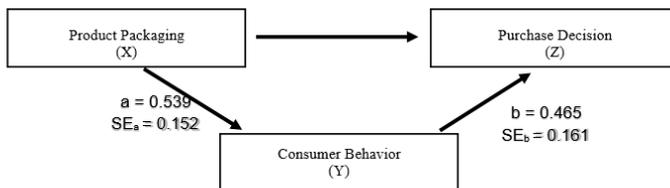


Figure 3 Path Analysis Path Diagram

Source: SPSS Processing, 2018.

The model above is a model formed from the first and second regression results, and therefore path analysis model was formed with Consumer Behavior as the intervening variable. Z-value from the Sobel Test can't be obtained directly from the regression result, but using manual calculation with the Sobel Test formula.

To determine whether or not the error probability value is significant, whereby the error probability value is 5%. The 5% error value is equivalent to 1.98 using the normal distribution curve. If z-value calculated is < 1.98 therefore it's not significant, and subsequently if z-value calculated is > 1.98 therefore it's significant. From the Sobel Test calculation, the z-value obtained is 2.261 and because the z-value obtained, 2.261 is higher than 1.98 with significance level of 5%, therefore it proves that Consumer Behavior can mediate the relationship between Product Packaging on Purchase Decision.

It was mentioned that Fcalculated obtained is 19.105 with significance level of 0.000 that is less

than 5% (0.05). Because the significance value $0.000 < 0.05$ align with the linear regression analysis based on the decision making in F-test, therefore it can be concluded that product packaging (X) and consumer behavior (Y) simultaneously (together) impact Purchase Decision (Z). It was mentioned that $F_{\text{calculated}}$ obtained is 12,586 with significance level of 0.001 that is less than 5% (0.05). Because the significance value $0.000 < 0.05$ align with the linear regression analysis based on the decision making in F-test, therefore it can be concluded that product packaging (X) simultaneously (together) impacts consumer behavior (Y).

Based on the hypothesis testing result using t-test as shown, the following results were obtained:

1. Product packaging (X) has a $t_{\text{calculated}}$ value of 3.293 with significance level of 0.002, which is less than 5% (0.05) and therefore it can be concluded that product packaging has a significant impact on Salvage Supply Co.'s purchase decision partially, and therefore it can be concluded that H_1 is accepted.
2. Consumer behavior (Y) has a $t_{\text{calculated}}$ value of 2.891 with significance level of 0.006, which is less than 5% (0.05) and therefore it can be concluded that consumer behavior has a significance impact on Salvage Supply Co.'s purchase decision partially, and therefore it can be concluded that H_2 is accepted.
3. Product packaging (X) has a $t_{\text{calculated}}$ value of 3.548 with significance level of 0.001, which is less than 5% (0.05) and therefore it can be concluded that product packaging has a significant impact on Salvage Supply Co.'s consumer behavior partially, and therefore it can be concluded that H_3 is accepted.

It was known that the coefficient correlation value (R) is 0.713 and therefore there's a strong correlation between the independent variables consisting of product packaging (X) and consumer behavior (Y) on purchase decision (Z). Coefficient determinant result (R Square/ R^2) of 0.508 shows that the model's ability to explain purchase decision (Z) is 50.8%, whereas 49.2% (based on calculation of $100\% - 50.8\%$) is affected by other factors not explored in this study. It was known that the coefficient correlation value (R) is 0.499 and therefore there's a strong correlation between product packaging (X) with consumer behavior (Y). Coefficient determinant result (R Square/ R^2) of 0.249 shows that the model's ability to explain consumer behavior (Y) is 24.9%, whereas 75.1% (based on calculation of $100\% - 24.9\%$) is affected by other factors not explored in this study.

This study used several classical assumption tests consisting of normality test, heteroschedasticity test, autocorrelation test, multicollinearity test, and linearity test. The result of normality test for Model I showed the Kolmogorov-Smirnov statistical value obtained to be 0.155 with Asymp. Sig. (2-tailed) of 0.017, which is higher than 1% (0.01). Due to the Asymp. Sig value obtained being higher than 0.01, therefore the distribution of the residual is deemed to have fulfilled the normality assumption at the 1% level. The normality test result of Model II showed the Kolmogorov-Smirnov statistical value obtained to be 0.166 with Asymp. Sig (2- tailed) of 0.011 which is higher than 1% (0.01). Due to the Asymp. Sig value obtained being higher than 0.01, therefore the distribution of the residual is deemed to have fulfilled the normality assumption at the 1% level.

There was no multicollinearity because the VIF values for product packaging and consumer behavior are less than 10. Durbin Watson value obtained is 1.704 and in this research the dU value for $n=40$, $k=2$ is 1.400 and $4 - dU = 2.600$. This result shows that the Durbin Watson value of 1.704 is between the range of dU and $(4-dU)$, and therefore it can be concluded that there was no autocorrelation. Durbin Watson value of 1.543 and for this study the dU value of and in this research the dU value for $n=40$, $k=2$ is 1.400 and $4 - dU = 2.600$. This result shows that the Durbin Watson value of 1.543 is between the range of dU and $(4-dU)$, and therefore it can be concluded that there was no autocorrelation.

Product packaging has a significance value higher than 0.05, and consumer behavior has significance value higher than 0.05. Therefore, it can be said that there was no heteroschedasticity in the independent variables studied on the 5% significance level. Product packaging has a significant value lower than 0.05 but is higher than 0.01. Therefore, it can be said that there was no heteroschedasticity on the independent variable on the 1% significance level.

Deviation from linearity significance value of 0.177 is higher than 5%, which means that there is a

linear relationship between product packaging and purchase decision. Deviation from linearity value of 0.538 is higher than 5%, which means that there is a linear location relationship on purchase decision. Deviation from linearity significance value of 0.231 is higher than 5% which means that there is a linear relationship between consumer behavior and product packaging.

Impact of Product Packaging on Purchase Decision

The result of the study is in accordance with the study conducted by Martinho (2015) and is supported with study by Susetyarsi (2014) which resulted in conclusion that it is true that the three variables product packaging, packaging shape, package labeling have impact on purchase decision. Therefore it shows that product packaging has an important role in giving value added to product purchase experience. A buyer will consider certain product packagings based on their evaluation and if the buyer found the product packaging to be interesting and is in accordance with the product sold then the buyer will not hesitate to purchase. Based on the result of the study, therefore the managerial implication for product packaging variable is as follows: participate in exhibition once every 2 months in Surabaya as well as outside of Surabaya to introduce denim refresher product.

Impact of Product Packaging on Consumer Behavior

The result of the study is in accordance with study by Dadun Abdul Manaf (2014), which stated that packaging has a positive impact on consumer behavior. The existence of positive impact shows that consumers agree that the graphical element arrangements on packaging have a more pleasing distribution by emphasizing on one element to attract attention. This shows that product packaging has an important role in giving value added on consumer behavior experiences. A consumer with his/her behavior will consider certain product packagings based on his/ her evaluation. Different consumer behavior will naturally be a challenge for producers to offer product packaging that attracts consumer's attention so that consumer will choose that product. Participating in exhibition once every 2 months in Surabaya as well as outside of Surabaya to introduce denim refresher products. Conducting promotions and quizzes in social media to garner consumer's interest to purchase.

Impact of Consumer Behavior on Purchase Decision

Data analysis result shows that the total mean for consumer behavior variable is 4.19 which shows that respondents have the tendency to strongly agree that consumer behavior is part of consideration in Salvage Supply Co.'s purchases. In addition, the indicator with the highest mean value is easier and faster responses in communicating with admin with mean of 4.35 which means that on that indicator respondents tend to strongly agree that Salvage Supply Co. is fast and responsive in their communication such that consumer would want to purchase. Indicator that has the most varied answers is ease in ordering and distribution of Salvage Supply Co. products, as indicated by the highest standard deviation value of 1.137. Based on the result of the study, it showed that consumer behavior variable has significance value of 0.000 which is smaller than 0.05 and therefore it can be concluded that consumer behavior directly impacts purchase decision significantly. This shows that consumer behavior has a significant contribution for consumers when purchasing denim refresher. Consumer behavior variable has a positive impact which means that how consumer behave when deciding whether a product is worth buying or not is based on the individual consumers' standards. In this study, consumer behavior standards used such as: I purchase Salvage product because it's a product that I want; I purchase Salvage product because the price is what I expected; I purchase Salvage product because it's easy to order and the distribution is fast; and I purchase denim refresher because of the ease and fast responses when communicating with admin; have impact on consumers' purchase decision. The result of the study is in accordance with study by Suardika (2016), which explained that consumer behavior factor has a positive impact on purchase decision. Based on the result of this study, the managerial implication for product packaging is as follows: Deciding on specific time for online chat with admin from 10:00 to 18:00 (update information daily in Instagram stories and update information daily in line@ broadcast).

Impact of Product Packaging on Purchase Decision and Consumer Behavior as Intervening Variable

Analysis test result shows that the regression coefficient of Product Packaging on Consumer Behavior is 0.539 with standard error of 0.152 and significance value of 0.001, and for Consumer Behavior the coefficient value is 0.539 with standard error of 0.152 and significance value of 0.001 and for Consumer behavior the coefficient value is 0.465 with standard error of 0.161 and significance value of 0.006. Therefore, product packaging has a significant and direct impact on purchase decision; similarly, consumer behavior has a significant and direct impact on purchase decision. From the Sobel Test calculation result, z value of 2.261 was obtained, and since the z value obtained is 2.261 which is higher than 1.98 at the 5% significance level, therefore it was proven that consumer behavior can mediate the relationship between product packaging on purchase decision. Result of this study is in accordance with study by Kartika (2015) that showed consumer behavior to be able to mediate the relationship between product packaging on purchase decision. Salvage Supply Co. need to know and understand how consumers behave in evaluating a packaging so that hopefully consumers' purchase decision in purchasing Salvage Supply Co.'s product will increase.

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