

The Effect of Packaging Changes and Product Quality on Sweety Diapers in Palembang City

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Abstract

This study aims to analyze the influence of packaging changes and product quality on purchasing decisions for Sweety Diapers in Palembang City. The results of the partial analysis demonstrate that both packaging changes and product quality have a positive and significant impact on purchasing decisions. Specifically, the packaging change variable shows a t-value of 8.830 with a significance level of 0.001, while the product quality variable has a t-value of 4.102, also with a significance level of 0.001. These findings indicate that packaging that is attractive, safe, and informative, along with high product quality, plays a key role in increasing consumer interest and trust, ultimately driving purchasing behavior. Furthermore, the study confirms that both packaging and product quality are significant factors influencing purchasing decisions. The results highlight that packaging innovation and product quality enhancement are critical marketing strategies that can enhance product competitiveness, foster customer trust, and increase brand loyalty.

Keywords

Packaging Change, Product Quality, Purchase Decision

Introduction

The baby diaper industry in Indonesia has experienced rapid growth and increasing competition, in line with the rising demand for these products, which have become an essential part of daily life for most families, particularly those with infants or toddlers. In the face of intensifying competition, companies operating in this industry are required to continuously

innovate, improve product quality, and consider other factors that influence consumer purchasing decisions. One of the key elements influencing a product's appeal is its packaging, which serves not only as a product protector but also as a visual communication medium between the brand and consumers. Regular packaging changes, such as those implemented by Sweety Diapers, aim to attract consumers by offering more appealing, safe, practical, and consumer-friendly designs.

Indonesian society, especially mothers, has significant purchasing power for baby products such as diapers. Packaging changes are expected to meet these needs, particularly in terms of safety and comfort for babies. However, these changes often elicit diverse responses from consumers. Most consumers welcome packaging innovations that are considered safer and more practical, but on the other hand, there is also a segment of consumers who prefer the old packaging that they are familiar with and find comfortable to use. This shows that while innovation is essential, companies must also consider the needs of consumers who are accustomed to the previous packaging.

In addition to packaging changes, product quality is also an important factor that consumers always consider. Many consumers feel that packaging changes must be accompanied by improvements in product quality to ensure continued comfort and safety for their babies. For example, in the case of Sweety Diapers, criticism of the old packaging, which was considered leaky, motivated a change to a safer and stronger packaging design. However, questions arose among consumers regarding whether the product quality had also undergone significant changes in line with the packaging changes. Product quality is one of the aspects that influence consumers' perceptions of the value of the products they purchase, and this is closely related to the purchasing decisions they make.

Purchasing decisions are influenced by many factors, including product quality, price, location of purchase, promotions, convenience, and service. In the context of diapers, consumers pay close attention to product quality and safety, as these products are used on babies with sensitive skin that is prone to irritation. Therefore, in addition to attractive packaging, high product quality is a key factor in influencing purchasing decisions. Consumers will also assess whether the price they pay is commensurate with the quality of the product they receive. In other words, companies need to ensure that any changes made to packaging are not only visually appealing but also demonstrate an improvement in quality that consumers can perceive.

Overall, both attractive and innovative packaging and maintained product quality are two very important elements in attracting consumers' attention and influencing purchasing decisions. Although packaging can serve as the first attraction for consumers, good product quality is the determining factor in whether consumers will make repeat purchases or switch to other brands. Therefore, companies must be able to maintain a balance between packaging innovation and product quality improvement, ensuring that these changes provide tangible benefits for consumers. By doing so, companies will be able to retain customer loyalty, enhance product competitiveness, and ultimately strengthen their brand position in an increasingly competitive market.

Methods

Population and Sample

The population in this study was all consumers who purchased Sweety products in Palembang City. The sample size was determined using the Isaach and Michael formula, which facilitates calculation based on the desired margin of error, namely 1%, 5%, and 10%. In this study, a margin of error of 10% was used.

The sampling technique used is *Nonprobability Sampling*, using the *Accidental Sampling* technique. This technique selects samples based on chance, namely anyone who is accidentally encountered and considered suitable as a data source for this study.

Data Collection Procedure

1. Primary Data

According to Ghozali (2022), primary data is data obtained directly from the source through collection carried out by the researcher. In this study, primary data was collected through two main methods:

- Questionnaires: Questionnaires were distributed through a Google Form that had been prepared in advance. This data collection technique was carried out by providing a set of written questions to respondents to be answered according to their knowledge and experience (Ghozali, 2022).
- Interviews: Interviews were conducted using a planned set of questions that were conveyed orally to respondents. Interviews could be conducted face-to-face or by telephone to obtain more in-depth information about respondents' views on Sweety Diapers products and packaging.

2. Validity and Reliability Tests

- Validity Test: A valid instrument means that the measuring tool used to measure the data can measure what it is supposed to measure. According to Sugiyono (2022), a validity test aims to ensure that the instruments used can provide accurate results and are in accordance with the research objectives.
- Reliability Test: Reliability is a measure of the extent to which the results obtained from a questionnaire are consistent or stable over time. Ghozali (2021) states that a questionnaire is considered reliable if the respondents' answers to the questions remain consistent in repeated measurements.

Analysis Method

1. Multiple Linear Regression Analysis

A regression model is used to analyze the effect of independent variables on dependent variables. According to Ghozali (2021), the multiple linear regression equation used in this study is: $Y = a + b_1X_1 + b_2X_2 + \varepsilon$ Description:

- Y : Dependent Variable (Purchase Decision)

- a : Constant
- b_1, b_2 : Regression Coefficients
- X_1 : Causal Factor Variable (Packaging Changes)
- X_2 : Causal Factor Variable (Product Quality)
- ε : Error

2. Normality Test

The normality test aims to test whether the population data is normally distributed. According to Ghazali (2021), the basis for deciding on normality testing is:

- If significance > 0.10 , then the data is normally distributed.
- If significance < 0.10 , then the data is not normally distributed.

3. Heteroscedasticity Test

The heteroscedasticity test aims to test whether there is a difference in variance between the residuals of one observation and another in the regression model. In this study, the author uses the Glejser test to detect heteroscedasticity.

4. Multicollinearity Test

The multicollinearity test is conducted to determine whether there is a high correlation between independent variables in the regression model. This test aims to ensure that there is no strong linear relationship between independent variables that could undermine the validity of the model. This test is conducted by looking at the Tolerance and Variance Inflation Factor (VIF) values. The decision criteria are:

- If Tolerance > 0.1 or VIF < 10 , the independent variables are considered free from multicollinearity.
- If Tolerance < 0.1 or VIF > 10 , the independent variables are considered multicollinear.

5. F Test (Simultaneous)

The F test is used to determine whether all independent variables collectively have a significant effect on the dependent variable. Ghazali (2022) states that this test is conducted by comparing the calculated F value with the table F value at a 10% error level. If the calculated F value is greater than the table F value, then the independent variables have a significant effect on the dependent variable.

6. t-test (Partial)

The t-test is used to test how much influence each independent variable has on the dependent variable individually. The steps for the t-test are as follows:

- $H_0 : \beta_1 = 0$, meaning that there is no influence from each independent variable on the dependent variable.
- $H_0 : \beta_1 > 0$, meaning that there is a significant influence of each independent variable on the dependent variable.

7. Determination Test

The coefficient of determination (R^2) is used to determine how much variation in the dependent variable can be explained by the independent variables in the regression model.

Sugiyono (2022) states that the R^2 value ranges from 0 to 1, the closer to 1, the greater the ability of the independent variables to explain the dependent variable. This test aims to measure how well the regression model explains the variation in purchasing decisions based on changes in packaging and product quality.

Results and Discussion

Result

Based on the results of validity and reliability tests conducted on the variables *Product Packaging* (X_1), *Product Quality* (X_2), and *Purchase Decision* (Y), it can be concluded that all indicators tested in each variable are valid and reliable. The validity test was conducted by comparing the *R Calculated* value with the *R Table* value and observing the significance level for each indicator. For the variable *Product Packaging* (X_1), which consists of indicators $X_{1.1}$ to $X_{1.10}$, all indicators show a calculated *R* value greater than the *R Table* (0.1497) and a significance level of less than 0.10, indicating that each indicator in the *Product Packaging* variable has excellent validity. Furthermore, for the *Product Quality* (X_2) variable, indicators ranging from $X_{2.1}$ to $X_{2.10}$ also show similar results, with *R Calculated* values higher than *R Table* and significance levels less than 0.10, indicating that the *Product Quality* variable can also be measured validly. In the variable *Purchase Decision* (Y), the indicators covering Y_1 to Y_{10} also meet the same validity criteria, with *R Calculated* greater than *R Table* and significance lower than 0.10.

In addition, the reliability test results show that all variables are also reliable for use in this study. The *Product Packaging* (X_1) variable has a Cronbach's Alpha value of 0.843, which is greater than the minimum limit of 0.60, so it can be said to be reliable. Similarly, the *Product Quality* (X_2) variable has a Cronbach's Alpha value of 0.913, and the *Purchase Decision* (Y) variable has a Cronbach's Alpha value of 0.896. Both values are also greater than 0.60, indicating that they are also reliable.

Therefore, it can be concluded that all indicators in the three variables tested, both in terms of validity and reliability, show good results and can be used to measure the relationship between variables in this study. The measurement instruments used have been proven to be valid and reliable, ensuring that the results of this study are trustworthy and highly useful.

Based on the test results, the following conclusions can be drawn:

1. Normality Test: The results of the normality test using the Kolmogorov-Smirnov test show that the significance value of 0.135 is greater than 0.10, which means that the data is normally distributed.
2. Multicollinearity Test: The results of the multicollinearity test show that all variables have a Tolerance value > 0.10 or Variance Inflation Factor (VIF) < 10 . This indicates that there is no multicollinearity in the regression model, so the model passes the multicollinearity test.
3. Heteroscedasticity Test: The results of the heteroscedasticity test show that all variables have a significance value (sig) > 0.10 , which means that there are no symptoms of heteroscedasticity in the regression model, so this model passes the heteroscedasticity test.
4. Regression Model: The resulting regression equation is: $Y = 15.158 + 0.498 X_1 + 0.199 X_2$
Where: The Adjusted *R Square* value of 0.502 or 50.2% indicates that the variables *Packaging Change* (X_1) and *Product Quality* (X_2) can explain 50.2% of the variation in the variable *Purchase Decision* (Y), while the remaining 49.8% is influenced by other factors.
 - Y = Purchase Decision

- X_1 = Packaging Change
 - X_2 = Product Quality
5. F Test (Simultaneous): The calculated F value of 137.512 is greater than the table F value of 3.029343 and the significance value of 0.1 is less than 0.10. Thus, H_0 is rejected and H_1 is accepted, which means that the variables *Packaging Change* and *Product Quality* simultaneously have a significant effect on *Purchase Decision*.
6. t-test (Partial):
- Product Packaging: The regression coefficient for the variable *Product Packaging* is 0.498, indicating that every one unit increase in *Product Packaging*, assuming other variables remain constant, will increase *Purchase Decision* by 0.498 units. The t-value of 8.830 and significance of 0.000, which is less than 0.05, indicate that *Product Packaging* has a significant effect on *Purchase Decision*.
 - Product Quality: The regression coefficient for the Product Quality variable is 0.199, indicating that a one-unit increase in Product Quality will increase the Purchase Decision by 0.199 units, assuming other variables remain constant. The t-value of 4.102 and significance of 0.000, which is less than 0.05, indicate that Product Quality also has a significant effect on the Purchase Decision.
7. Standard Beta Coefficient: The standard beta coefficient value indicates the strength of each variable's influence on *Purchase Decision*. The *Product Packaging* variable has the highest standard beta value, which is 0.522, compared to *Product Quality*, which has a standard beta value of 0.242. This shows that *Product Packaging* has a more dominant contribution to *Purchase Decision* in Palembang compared to *Product Quality*.

Therefore, it can be concluded that both *Packaging Changes* and *Product Quality* significantly influence *Purchase Decisions*, with *Product Packaging* having a greater influence than *Product Quality*.

Discussion

The Effect of Packaging Changes on Purchasing Decisions

The results show that the variable *Packaging Changes* has a significant effect on *Purchasing Decisions*. In the *t* test for this variable, the *calculated t* value was 8.830, which is greater than the *table t* value of 1.968822, and the significance value (sig.) was 0.001, which is less than 0.10. Based on statistical test criteria, if the *calculated t* value is greater than the *table t* value and the significance value is less than 0.10, then H_0 (null hypothesis) is rejected and H_1 (alternative hypothesis) is accepted. Thus, these results prove that *Packaging Changes* have a positive and significant effect on the purchase decision of *Diapers Sweety* in Palembang City. This means that changes in packaging design made by the company have proven to attract consumers' attention, increase their interest, and ultimately influence their decision to purchase the product. This is important in the context of marketing, because packaging is one of the elements that is directly related to consumers' perceptions of a product. More attractive, safe, and functional packaging can create a positive image that strengthens consumers' purchasing decisions.

The Effect of Product Quality on Purchasing Decisions

The results of the study indicate that *Product Quality* also has a positive and significant effect on *Purchase Decisions*. The *t-value* for this variable is 4.102, which is greater than the *t-table* value of 1.968822, and the significance value (sig.) is 0.001, which is less than 0.10. Thus, H_0 is rejected and H_1 is accepted, which means that *Product Quality* has a significant effect on the purchasing decision

of *Diapers Sweety* in Palembang City. These results confirm that consumers not only pay attention to the physical appearance of the product through its packaging but also consider the quality of the product itself. Good product quality, which can be directly felt by consumers, is very influential in creating trust and satisfaction that leads to a decision to buy. This makes product quality a major factor in supporting the achievement of the company's goals of increasing sales volume and consumer loyalty.

The Effect of Packaging and Product Quality Changes on Purchasing Decisions

Additionally, this study also examined the simultaneous influence of *Packaging Changes* and *Product Quality* on *Purchasing Decisions*. The results of the *F* test showed that the calculated *F* value of 137.512 was greater than the table *F* value of 3.029343, and the significance value (sig.) of 0.001 was less than 0.10. Based on these results, H_0 is rejected and H_1 is accepted, meaning that *Packaging Changes* and *Product Quality* simultaneously have a positive and significant effect on the *Purchase Decision* of *Sweety Diapers* in Palembang City. This proves that both variables, individually and together, have a strong influence on consumers' decisions to purchase the product. These two factors complement each other, where attractive packaging and good product quality reinforce consumers' positive perceptions, ultimately increasing the likelihood of them purchasing the product. In other words, while attractive packaging is important for initially capturing consumers' attention, good product quality is the key factor ensuring consumers make a purchase and return to buy the product in the future.

Overall, this study successfully demonstrated that both *Packaging Changes* and *Product Quality* have a significant influence on *Purchase Decisions*, both individually and simultaneously. Both factors are important elements in marketing strategies that companies can use to increase competitiveness and achieve success in the market.

Conclusion

Based on the results of the study, it can be concluded that partially, *Packaging Changes* have a significant effect on the *Purchasing Decisions* of *Sweety Diapers* products in Palembang City. This is proven through statistical testing, with a calculated t-value of 8.830, which is greater than the table t-value (1.968822) and a significance value of 0.001, which is less than 0.10, indicating that *Packaging Change* has a positive effect on *Purchase Decisions*. Additionally, *Product Quality* was also found to have a positive and significant influence on purchase decisions, with a calculated t-value of 4.102 and a significance level of 0.001, meaning that improving product quality increases purchase decisions. Simultaneously, this study also shows that *Packaging Changes* and *Product Quality* together have a significant influence on the *Purchase Decision* of *Sweety Diapers* in Palembang City. These two factors, attractive packaging and good product quality, have a major contribution in strengthening product competitiveness and increasing brand loyalty, which will support the company's long-term success. Based on these findings, the company is advised to continue innovating in packaging design to make it more attractive and functional, such as using environmentally friendly materials that maintain product safety, as well as clarifying information on the packaging to increase consumer appeal and convenience. Additionally, the company must ensure that product quality remains consistent and meets customer expectations, which can be

achieved through regular product testing, selecting high-quality raw materials, and enhancing product features. Given the importance of packaging and product quality, companies are also advised to conduct regular surveys or market research to understand consumer preferences and adjust their marketing strategies. Loyalty programs such as discounts for loyal customers, purchase-based promotions, or attractive bundling packages can also be implemented to increase customer retention. Finally, companies can strengthen their brand image through communication strategies on social media, digital advertising, and customer testimonials to highlight the advantages of their packaging and product quality, which will further strengthen their brand position in an increasingly competitive market. By implementing these suggestions, companies will be able to continue to grow, strengthen their market position, and maintain customer loyalty.

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