

The Effect of Green Packaging Perception on Green Customer Loyalty mediated by Green Customer Loyalty Mediated by Green Customer Satisfaction On Avoskin Brand Cosmetic Products in Bandung City

Serina Hesti Mahendra¹, Hariyadi Triwahyu Putra²

^{1,2}Universitas Jenderal Achmad Yani

Corresponding Author: serinahesti_21p217@mn.unjani.ac.id,
hariyaditriwahyu@mn.unjani.ac.id

Article Information:

Received: May 16, 2025, Accepted: October 01, 2025, Published: October 15, 2025

Abstract

This research seeks to empirically investigate the extent to which perceptions of environmentally friendly packaging affect consumer loyalty toward Avoskin cosmetic products. Green customer satisfaction is positioned as an intervening variable within the context of Bandung-based Generation Z students. The measurement instruments employed in this study demonstrated adequate levels of validity and reliability, thereby justifying their use in data collection. A total of 120 respondents, all of whom had previously purchased Avoskin products, constituted the sample. The analytical approach comprised both simple and multiple regression models, supplemented with a Sobel test to evaluate mediating effects. Findings indicate that perceptions of green packaging positively and significantly affect customer satisfaction and loyalty, with satisfaction also emerging as a significant predictor and mediator in this relationship. However, future research is advised to explore alternative constructs that may more directly drive green customer loyalty. This finding also opens up opportunities for future researchers to explore other concepts that directly affect green customer loyalty. This research offers practical benefits to Avoskin in designing a marketing strategy to enhance product quality and attract more consumers from Generation Z.

Keywords: Green packaging perception, green customer loyalty, green customer satisfaction

1. Introduction

In the contemporary era marked by heightened concern for ecological sustainability, environmentally friendly or green packaging has emerged as a central priority across diverse industrial sectors (Hasan et al., 2024). The notion of green packaging perception encompasses packaging practices deliberately structured to mitigate environmental harm, encompassing the selection of raw materials, manufacturing processes, and post-consumption waste management. Such an approach aligns with the 4RID framework—reduce, reuse, reclaim, recycle, and degradable—whose overarching objective is to curtail natural resource exploitation while simultaneously minimizing environmental pollution (Mulyono & Sulistyowati, 2024).

Changes in consumer lifestyles and global regulatory pressures are increasingly pushing companies to adopt environmentally friendly practices. In the Environmental Protection

Agency (EPA) report, the packaging sector contributes up to 28% of the total solid waste worldwide, so the implementation of green packaging perception is a strategic step to reduce this contribution.

Moreover, consumer preference is progressively shifting toward products employing eco-friendly packaging, as such practices are perceived to embody a company's commitment to social and environmental responsibility ([Deliana et al., 2023](#)). Data from the Ministry of Environment and Forestry (KLHK) and the Central Statistics Agency (BPS) (2024), derived from the National Waste Management System (SIPSN), indicate that Indonesia generates approximately 38.2 million tons of waste annually, with 61.79% of this volume ultimately ending up in landfills. However, around 38.21% or around 14.6 million tons of waste is still not appropriately managed and risks polluting the environment, especially plastic waste. The cosmetics industry is one of the biggest contributors to plastic waste in the world through its packaging. Therefore, to support the waste management movement, Avoskin has also been actively campaigning for the return of used packaging since 2021. From this campaign, Avoskin managed to collect as many as 17,266 used packaging by involving 3,564 customers for this program. Avoskin also collaborated with waste4change for its management, and the collected ones were processed by partner waste banks to be processed into further goods. With the environmental problems that exist in Indonesia, namely the Green Economic Forum, Toward Sustainable and Green Indonesia, to completely eradicate planning, regulation, to realization in the field, including implementation in business circles with the Eco Green program, and education on social media with skin care investigations conducted by doctors who review several skin care products sold in e-commerce, and find many skin care products, even many of them overclaim that contain harmful substances that can affect skin health or packaging that is difficult to recycle. Therefore PT. Avo Innovation Technology, chose to embrace the principle of "Green Beauty" since 2020 the concept of Green Beauty so as to launch Avoskin products one of the local beauty product brands.



Figure 1. Fluctuations in Cosmetics Sales in Indonesia 2024

Source: [Febrianti et al., \(2024\)](#)

According to Figure 1 and supporting research findings, Indonesia's beauty industry recorded a growth rate of 5.59% in 2020, which further increased to 7% in 2021 and continued to rise beyond 2023 ([Febrianti et al., 2024](#)). Furthermore, data reported by the Association of Indonesian Cosmetics Companies and Associations provide additional insights into this upward trend, the Indonesian Information Portal shows that the skincare and cosmetics industry shows that competition in the industry is increasingly fierce and continues to grow ([Indonesian Information Portal., 2023](#)).

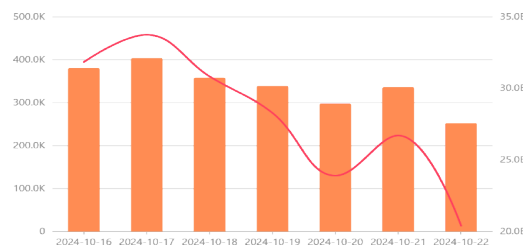


Figure 2. Fluctuations in Cosmetic Sales in Indonesia

Source: Shoplus, (2024)

In Figure 2 above Indonesia is experiencing a decline in cosmetics sales, with increased competition from local and international brands, changes in consumer behavior and economic conditions that affect people's purchasing power. Research results related to sales for the Avoskin Beauty skincare category reached Rp292 billion during the second quarter - 2022 where Avoskin became the 4th best-selling product with sales revenue of Rp28 billion under Somethinc, Scarlet and Ms Glow. In 2017 and May 2020, Avoskin products succeeded in 125,091 transactions in less than 24 hours and generated 16 billion rupiah in July 2021 with 47,000 transactions, and increased again to 118,100 transactions from June to August 2022. Avoskin is able to increase sales up to 9x on certain advertising campaigns, and the contribution of sales on Shopee reaches 30-40% of the company's total sales, but Google Trends shows that interest in purchasing Avoskin skin care products has decreased in October 2024. Which is presented as follows:

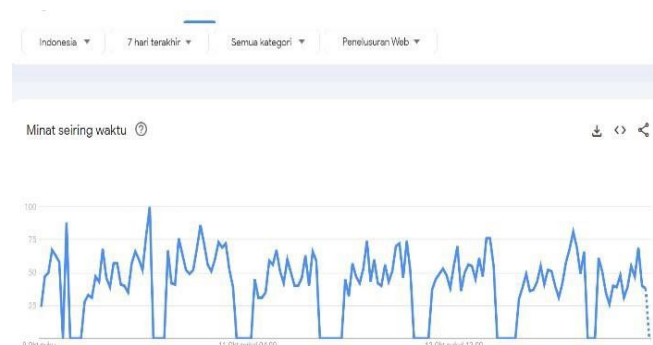


Figure 3. Avoskin Category Google Trends Data 2024

Source: Gogle trends (2024)

Based on Figure 3 above, however, searches related to Avoskin skin care products have decreased over a period of time. This decline indicates a decrease in consumer interest in the product, which is caused by factors such as increased competition in the skincare industry, changes in beauty trends, or consumer preferences. Not only that, the Indonesian cosmetics industry also experienced a downturn due to skin care problems which led to the downfall of skin care companies in Indonesia. The novelty in this research is that the object of research is Avoskin cosmetics and the respondents taken are those who have used Avoskin cosmetics aged 17-27 years, generation Z and the city of Bandung which is the locus of research..

Quoted from the MDPI Sustainability website (2024) Avoskin often faces problems related to packaging that is widely copied by other markets that are not in accordance with the original packaging from Avoskin which has sustainable principles, so that it can damage consumer confidence in the concept of green packaging perception. Based on this case, green packaging

perception is relevant as an independent variable, because if the packaging is not in accordance with consumer expectations, such as packaging that does not reflect the principles of sustainability, this can affect green customer loyalty. Therefore, positioning green customer loyalty as the dependent variable is considered appropriate, given its pivotal role in determining the effectiveness of marketing strategies. In this framework, green customer satisfaction functions as a mediating construct that links perceptions of green packaging to loyalty outcomes, thereby underscoring its relevance and significance as an intervening variable.

2. Literature Review

2.1. Green Packaging Perception

Green packaging perception describes the way consumers perceive, interpret, and react to packaging promoted as eco-friendly ([Immawati et al., 2024](#)). In addition, green packaging perception is a packaging that is processed using materials that have a minimal impact on energy use and environmental pollution around it ([Rahayuningsih & Nurtjahjadi, 2023](#)). Green packaging perception can be assessed through several dimensions, namely packaging design, material composition, labeling, color, and size. then the definition of packaging form is the physical form of a package that is used to protect, store, distribute products and packaging forms can vary such as bottles, boxes, tubes, sachets, or cans ([Aini et al., 2022](#)). Meanwhile, the dimensions of the packaging form can be measured through indicators including maintaining the quality of Avoskin's green products through its packaging, the ability to store Avoskin's green product packaging in maintaining product quality, the good distribution of Avoskin's green products that do not damage the environment, and the ability of Avoskin's packaging to show its identity as a green product ([Aini et al., 2022](#)). Furthermore, packaging raw materials are the basic materials used to make containers or wrappers and packaging raw materials can be plastic, paper, glass, metal, or biodegradable materials, with considerations such as safety, durability, and production costs ([Alifathullah et al., 2024](#)). Indicators for measuring packaging raw materials include the ability of Avoskin packaging raw materials that can be recycled, the ability of Avoskin cosmetic packaging raw materials that provide safety for their products, and the durability of packaging raw materials that protect Avoskin cosmetics from damage ([Alifathullah et al., 2024](#)). Furthermore, the packaging label is a label is part of the packaging that contains information about the product and functions as a promotional tool ([Kotler & Keller, 2012](#)). Indicators include the availability of packaging labels informing as green products, the ability of Avoskin product packaging labels to promote green products ([Kotler & Keller, 2012](#)). Furthermore, packaging color refers to the use of color in product packaging design for aesthetic and functional purposes ([Hidayat et al., 2024](#)). The indicators include the attractiveness of the green packaging color of Avoskin products as green products and the suitability of the packaging color that identifies Avoskin as a green product ([Hidayat et al., 2024](#)).

2.2. Green Customer Satisfaction

Green customer satisfaction is defined as a sense of consumer pleasure when consumption activities fulfill some needs, goals, and desires related to environmental concerns. In other words, product performance can meet or exceed customer needs, environmental requirements and regulations, and develop the environment in a sustainable manner ([Angrenggani & Utomo, 2024](#)). In addition, according to [Dzulkifli, \(2021\)](#) green customer satisfaction is a concept of customer satisfaction that refers to the customer's cognition of the services provided. Indicators for measuring green customer satisfaction are feeling happy with the quality of environmentally

friendly cosmetics, feeling happy with the services provided by the store for environmentally friendly products and feeling happy about participating in making purchases that support environmentally friendly products ([Angrenggani & Utomo, 2024](#)).

2.3. Green Customer Loyalty

Green customer loyalty can be understood as a behavioral tendency reflected in repeated purchases and the sustained utilization of environmentally friendly products or services from a particular brand, accompanied by the maintenance of long-term consumer-company relationships ([Nata & Lestari, 2024](#)). As emphasized by [Dzulkifli \(2021\)](#), it represents a pattern of consumer conduct characterized by the intention to consistently engage with and continue using the products and services offered. Indicators for measuring green customer loyalty are willingness to be loyal to buy environmentally friendly cosmetic products, willingness to continue to use environmentally friendly cosmetics compared to conventional cosmetics, willing to refer environmentally friendly cosmetics to others ([Nata & Lestari, 2024](#)).

2.4. The Effect of Green Packaging Perception with Green Customer Satisfaction

[Ningsih and Widodo \(2021\)](#) assert that perceptions of green packaging exert a positive and significant influence on green customer satisfaction, a finding further corroborated by [Winarno et al. \(2021\)](#). Similarly, [Sofiani and Yulia \(2024\)](#) provide empirical evidence that environmentally friendly packaging positively and significantly affects customer satisfaction. Based on these insights, it can be inferred that green packaging perception positively and significantly shapes green customer satisfaction in the context of Avoskin cosmetic products within Bandung City. This reasoning serves as the foundation for formulating the first hypothesis as follows:

H1 : Green packaging perception has a positive and significant effect on green customer satisfaction on Avoskin brand cosmetic products in Bandung City.

2.5. Effect of Green Packaging Perception with Green Customer Loyalty

[Ayu and Sari \(2017\)](#) found that green packaging perceptions positively and significantly affect customer loyalty, a result consistent with [Purwoko and Haryana \(2021\)](#), who also confirmed the same relationship. Hence, it can be concluded that perceptions of eco-friendly packaging positively influence customer loyalty to Avoskin cosmetics, serving as the foundation for the second hypothesis:

H2: Green packaging perception has a positive and significant effect on green customer loyalty in Avoskin brand cosmetic products in Bandung City.

2.6. Positive and Significant Influence of Green Customer Satisfaction with Green Customer Loyalty

[Dzulkifli \(2021\)](#) found that green customer satisfaction positively and significantly influences loyalty, highlighting its key role in strengthening commitment to eco-friendly products. Accordingly, the third hypothesis is proposed:

H3: Green customer satisfaction has a positive and significant effect on green customer loyalty in Avoskin brand cosmetic products in Bandung City.

2.7. The Influence of Green Customer Satisfaction Plays a Role in mediating the Effect of Green Packaging Perception on Green Customer Loyalty

[Yuliana and Pantawis \(2022\)](#) assert that green customer satisfaction serves as a mediating factor in the relationship between green packaging perception and green customer loyalty. This view is reinforced by [Safitri et al. \(2024\)](#) and [Rizal et al. \(2024\)](#), both of whom highlight that greater satisfaction with eco-friendly products strengthens the link between packaging perception and loyalty—implying that higher levels of satisfaction correspond to higher levels of loyalty. Similarly, [Pramesti and Chasanah \(2021\)](#) emphasize the mediating role of satisfaction in this dynamic, a conclusion further supported by [Farooq et al. \(2023\)](#). Consistent with these results, [Meisaroh et al. \(2022\)](#) also found that green customer satisfaction serves as an effective mediator between packaging perception and loyalty outcomes.

From the foregoing discussion, it can be inferred that green customer satisfaction functions as a mediating variable in the relationship between green packaging perception and green customer loyalty. Accordingly, the fourth hypothesis is formulated as follows:

H4: Green Customer Satisfaction plays a role in mediating the influence of green packaging perception on green customer loyalty in Avoskin brand cosmetic products in Bandung City.

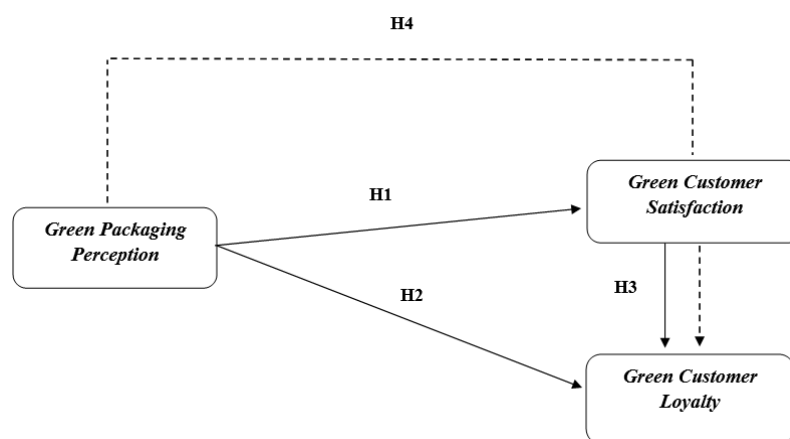


Figure 4. Conceptual Model

3. Research Method

This type of research uses a quantitative approach to test the given hypothesis. This research sampled a group of respondents aged 17-27 years for Generation Z, which is the population born in 1997-2012. This generation has become the center of attention in the marketing context due to its unique characteristics and its tendency to influence trends in the use of Avoskin cosmetics and obtain information about them through social media. Terms for completing the questionnaire for those who have made purchases in the last 3 months. With a sample of 120 people. The variables tested in this study are Green Packaging Perception as the independent variable, Green Customer Satisfaction as the mediator, and Green Customer Loyalty as the dependent variable. The indicators to measure every variable include form of packaging, raw packaging materials, physical attributes such as label, color and size that are manipulated to the concept of green packaging perception, continuation for purchase and recommendation for green customer loyalty.

This study used convenience sampling, a non-probability method in which data are collected from respondents most easily accessible to the researcher. As [Sekaran and Bougie \(2017\)](#) note,

such sampling means not all population members have an equal chance of selection ([Sekaran & Bougie, 2017](#)). Therefore, an indirect questionnaire using Google Forms distributed the questionnaire to the entire research sample, allowing researchers to obtain responses directly and quickly. Then, the data will be analyzed utilize simple regression, multiple regression and Sobel test.

4. Findings and Discussions

The validity test results show that all Pearson correlation (rcount) values for each statement exceed the rtable 0.1793. This indicates that all measures of each variable are valid and measure what they are intended to measure. Then the reliability test is carried out to measure whether the instrument for collecting data is consistent and stable over time as stated by [Sekaran & Bougie, \(2017\)](#), and the reliability of this instrument is assessed based on the criteria if the value is less than 0.60 is considered not good, the value is acceptable around 0.60 and a value of more than 0.80 is considered good. In this research instrument, the Cronbach's alpha value is more than 0.80, so each item is considered reliable.

Table 1. Validity and Reliability Test

Variabel	Dimensions	Indicator	pearson correlation	cronbach's alpha	r _{tabel}
<i>Green Packaging Perception (X)</i>	Packaging Form	Avoskin's green product packaging is able to protect the quality of its products.	0,935	0.986	0,1793
			0,939		
		Avoskin's green products are able to store products in maintaining quality through their packaging	0,929		
	Packaging Raw Materials	The process of distributing Avoskin's green products to consumers does not damage the environment	0,924		
			0,925		
		Avoskin has succeeded in providing an identity through its packaging as an environmentally friendly product.	0,925		
	Packaging Label		0,924	0,928	
		Avoskin's packaging raw materials can be	0,928		

	recycled			
Packaging Color		0,929		
	Avoskin's cosmetic packaging raw materials are able to provide security for its products.	0,923		
Packaging Size		0,926		
	Avoskin's cosmetic packaging raw materials have a durability that can protect Avoskin cosmetics from damage.	0,929		
Green Customer Satisfaction (Y)		0,940		
	Avoskin's packaging label informs us as a green product	0,945	0,938	0,1793
		0,947		
Green Customer Loyalty (Z)	Avoskin's product packaging label is able to promote the Avoskin brand as a green product	0,957		
		0,953	0,948	0,1793
	The color of Avoskin's product packaging is attractive as part of a green product	0,945		

Source: Data processing results

Of the 120 respondents surveyed, the majority are female (95%), with ages between 17 to 22 years old (82%) and all live in Bandung City (120%) and all respondents are students (120%). With an income of mostly < Rp. 1,500,000 (57%), all of them know and have purchased Avoskin products in the last 3 months. The respondent profile is shown in table 3 below:

Table 2. Respondent Profile

Information	Amount	Presentage
Gender		
Male	25	25%
Female	95	95%
Age		
17 – 22 years	82	82%

23 – 27 years	38	38%
Domicile		
Bandung City	120	120%
Income		
<Rp. 1,500,000	57	57%
Rp. 1,500,000	42	42%
>Rp. 5,000,000	13	13%
Occupation		
Student	120	120%

Source: Data Processing (2025)

Primary data is the type of data in this study, which is sourced from student respondents who know and have purchased Avoskin products in the last 3 months. Based on the period of data collection, this research is classified as a cross-sectional study, because the data is only collected in one period of time, which is one week. For data collection, Google Forms were used to distribute questionnaires online. Furthermore, to explain the relationship in the Best Linear Unbiased Estimator (BLUE) equation, [Ghozali \(2013\)](#) states that the validity of the equation is demonstrated by fulfilling the basic classical assumptions known as Ordinary Least Squares (OLS) in simple and multiple regression analysis. Accordingly, classical assumption tests—including normality, multicollinearity, and heteroscedasticity—were conducted.

4.1 Normality Test

Table 3. Normality Test

Information	Asymp. Sig
Equation 1	0,200
Equation 2	0,200

Source: Data processing results

The results of the normality test indicate that the first regression equation produced a significance value of 0.200, while the second equation likewise yielded a significance value of 0.200. Since both values exceed the threshold of 0.05, it can be concluded that the two regression models satisfy the assumption of normality.

Multicollinearity Test

Table 4. Multicollinearity Test

Model	Equality 2	
	Tolerance	VIF
<i>Green packaging perception</i>	0.270	3.705
<i>Green customer satisfaction</i>		
<i>Green customer loyalty</i>		

Source: Data processing results

The regression model's multicollinearity test indicates that the data are free from multicollinearity, implying no correlation among the independent variables. For the first equation, the multicollinearity test is not used, because it only uses simple linear regression. Therefore, it can be concluded that each variable in equation 2 has a tolerance value > 0.10 and VIF < 10, which means that the model is free of multicollinearity.

4.2 Heteroskedasticity Test

Table 5. Heteroskedasticity Test

Model	Equality 1	Equality 2
	Sig.	Sig.
<i>Green packaging perception</i>	0.961	0.668
<i>Green customer satisfaction</i>		
<i>Green customer loyalty</i>		

Source: Results of data processing

In the first equation, the significance value of 0.961 exceeds 0.05, and in the second equation, the value of 0.668 also exceeds 0.05. These results indicate no heteroscedasticity, meaning both regression models meet the classical assumption test and are suitable for further analysis.

4.3 Simple Regression Analysis

Table 6. Simple Regression Analysis

Model	B	t	Sig.
(Constant)	0,489	0.958	0.340
<i>Green packaging perception</i>	0,232	17.866	0,000

Dependent Variable: Green Customer Satisfaction

Source: Simple Regression Analysis

Based on the results of simple regression analysis, a linear regression equation is obtained:

$$Y = 0.489 + 0.232X$$

From the simple regression equation, the constant value of 0.489 indicates that when all independent variables are zero, green customer satisfaction stands at 0.489 units. Moreover, the coefficient (β) of 0.232 and a t-statistic of 17.866 (greater than the t-table value of 1.6579) confirm that green packaging perception has a positive and significant effect on customer satisfaction.

4.4 Multiple Regression Test

Table 7. Multiple Regression Test

Model	B	t	Sig.
(Constant)	0,940	1.660	0,100
<i>Green packaging perception</i>	0,057	2,066	0,041
<i>Green customer satisfaction</i>	0,534	5,247	0,000

Dependent Variable: Green Customer Loyalty

Source: Multiple Regression Test

Based on the results of multiple regression analysis, a linear regression equation is obtained:

$$Z = 0.940 + 0.057X + 0.534Y$$

Based on the multiple regression equation, the constant value of 0.940 indicates that when all independent variables are equal to zero, the level of green customer loyalty is 0.940 units. Moreover, the findings demonstrate that both green packaging perception and green customer satisfaction significantly and positively influence green customer loyalty, as evidenced by their

respective coefficient (β) values of 0.534 and 0.057, along with t-statistics of 5.247 and 2.066, each exceeding the critical t-table value of 1.6579.

The Sobel test was conducted to assess whether green customer satisfaction mediates the relationship between green packaging perception and customer loyalty, with the results shown in Table 10.

Table 8. Sobel Test

Relationship between variables	a	B	Sa	Sb	Sobel test results	Cobel test acceptance criteria	Interpretation
Green packaging perception → Green customer satisfaction → Green customer loyalty	0.232	0.534	0.013	0.102	5.02359373	t count > t table = 1.6579	Green Customer Satisfaction mediates the influence of Green Packaging Perception on Green Customer Loyalty .

In line with the preceding discussion, the proposed research model has successfully met the requirements of the validity test, reliability test, and classical assumption tests—including normality, multicollinearity, and heteroscedasticity—along with simple and multiple linear regression analyses and the Sobel test. Accordingly, the outcomes of the four statistical hypotheses are presented in Table 9 as follows:

Table 9. Hypotesis Test Result

Hypothesis	Relationship between variables	T count & significance value	Interpretation of hypothesis test results
H1	Green packaging perception → Green customer satisfaction	t count 17.866 and sig .001	H0 successfully rejected Green packaging perception has a positive effect on Green customer satisfaction
H2	Green packaging perception → Green customer loyalty	t count 11.391 and sig .000	H0 successfully rejected Green packaging perception has a positive effect on Green customer loyalty
H3	Green customer satisfaction → Green customer loyalty	t count 13.315 and sig .000	H0 successfully rejected Green customer satisfaction has a positive effect

H4	<i>Green customer satisfaction → Green packaging perception</i> <i>Green customer loyalty</i>	T count 5.02359373 and sig .041	H0 successfully rejected	on Green customer loyalty Green customer satisfaction plays a mediating role in the influence of Green packaging perception on Green customer loyalty
----	--	---------------------------------------	--------------------------------	--

4.5 The Effect of Green Packaging Perceptions on Green Consumer Satisfaction

Hypothesis testing confirms that green packaging perception significantly affects customer satisfaction, as evidenced by a t-value of 17.866 (exceeding the t-table value of 1.6579) and a significance level of 0.001 (below 0.05). These results align with Sofiani and Yulia (2024), confirming that stronger green packaging perceptions are linked to higher customer satisfaction.

4.6 The Effect of Green Packaging Perceptions on Green Customer Loyalty

The results indicate that the perception of green packaging significantly impacts customer loyalty, as shown by a t-value of 11.391 (above the t-table value of 1.6579) and a significance level of 0.000 (below 0.05). This confirms its positive impact on loyalty, consistent with [Rizal et al. \(2024\)](#), who reported similar findings. Thus, stronger green packaging perceptions correspond to greater customer loyalty toward Avoskin cosmetics.

4.7 The Effect of Green Customer Satisfaction on Green Customer Loyalty

Hypothesis testing shows that green customer satisfaction significantly influences loyalty, with a t-value of 11.391 (greater than the t-table value of 1.6579) and a significance level of 0.000 (below 0.05). This confirms a positive effect, aligning with Rizal et al. (2024), who also found a significant satisfaction–loyalty link. In short, higher green customer satisfaction fosters stronger loyalty to Avoskin cosmetics.

4.8 The Role of Green Customer Satisfaction in mediating the Effect of Green Packaging Perception on Green Customer Loyalty

The Sobel test confirms that green customer satisfaction mediates the relationship between green packaging perception and customer loyalty, supporting the fourth hypothesis. This aligns with [Farooq et al. \(2023\)](#), who also found that satisfaction effectively mediates the effect of packaging perception on loyalty.

5. Conclusion

Based on a known phenomenon obtained from [Shoplus, \(2024\)](#) that the decline in cosmetic purchases is due to the problem of cosmetics in Indonesia which has caused a decline in sales. Based on Google Trends, Avoskin cosmetics have decreased based on this phenomenon can identify Avoskin's green customer loyalty decreasing. Green customer loyalty is positively

influenced by green packaging perception ([Safitri et al., 2024](#)). Green customer loyalty is positively influenced by green customer satisfaction ([Rizal et al., 2024](#)). This study involved 120 respondents with the characteristics of having bought Avoskin and knowing Avoskin's information as a green product, who live in Bandung City with ages 17-27 years. . The essence of the hypothesis test results of this study are as follows:

1. Green packaging perception positively affects customer satisfaction for Avoskin products in Bandung.
2. Green packaging perception positively influences customer loyalty for Avoskin products in Bandung.
3. Green customer satisfaction strengthens customer loyalty for Avoskin products in Bandung.
4. Green customer satisfaction mediates the effect of packaging perception on loyalty for Avoskin products in Bandung.

Scientific Implications

In this study, there are several limitations, namely the research locus conducted in Bandung City with characteristics of the sample that are different from the research method used. This study also has limitations in terms of the profile of respondents who are only included in generation Z, namely those aged at least 17-27 years domiciled in Bandung City with a sample size of 120 respondents. Therefore, for further research, it is recommended to conduct research with samples not only generation Z so that it can represent several customers of Avoskin. Another distinguishing feature of this study compared to prior research lies in the selection of its research object, namely Avoskin cosmetic products. For future investigations, it is recommended to incorporate additional variables not examined in this study that may also contribute to influencing green customer loyalty.

Managerial Implications

In line with the objective of this study—to address the research problem concerning the decline in green customer loyalty identified through observed symptoms—it is essential to recognize that loyalty can be predicted by key influencing variables, namely green packaging perception and green customer satisfaction. Accordingly, Avoskin should focus on strengthening all indicators related to these variables, as well as enhancing loyalty itself. Such improvements are expected to indirectly foster a greater level of green customer loyalty. To improve green customer loyalty, the company needs to focus on green packaging perception indicators including the form of packaging consisting of the ability to protect green Avoskin products through their packaging, the ability to store green Avoskin product packaging in maintaining product quality, good distribution of green Avoskin products that do not damage the environment, the ability of Avoskin packaging in showing its identity as a green product. In addition, there are packaging raw materials consisting of the company must focus on the ability of Avoskin packaging raw materials that can be recycled, the ability of packaging raw materials that provide security for their products, and the durability of packaging raw materials that protect Avoskin from damage. In addition, the company also needs to pay attention to the packaging label that must be available packaging labels that inform as green products, and show the ability of packaging labels in promoting green products. To improve sales strategies, the company also needs to pay attention to the color of the packaging such as the attractiveness of

the green packaging color of Avoskin products as part of green products and the suitability of the packaging color that identifies Avoskin as a green product. What needs to be considered is the size of the packaging such as the suitability of the size of the green packaging of Avoskin products in terms of dimensions and the ease of distributing the size of the green packaging of Avoskin products to reach consumers. Therefore, the implementation of these strategies will help the Avoskin company in increasing their market share in the green packaging segment and contribute to sustainable efforts to achieve green customer satisfaction which will ultimately have an impact on green customer loyalty.

References

- Aini, Y. (2022). Dampak Green Product Dan Green Advertising Terhadap Keputusan Pembeli Air Mineral Merek Aqua: The Impact Of Green Product Green Advertising On The Purchasing Decision Of Aqua Brand Mineral Water. *Hirarki: Jurnal Ilmiah Manajemen dan Bisnis*, 4(1), 599-609.
- Alifathullah, N., Rakhsan, M. Q. N., Riyan, A., & Almubarri, I. (2024). Pemanfaatan Limbah Kayu sebagai Bahan Baku Kemasan Bakpia: Analisis Potensi Lingkungan dan Keberlanjutan. *Ranah Research: Journal of Multidisciplinary Research and Development*, 6(4), 874–882. <https://doi.org/10.38035/rj.v6i4.888>
- Angrengani, S. K. R., & Utomo, H. S. (2024). Pengaruh Green Product Quality terhadap Green Customer Satisfaction dan Green Customer Loyalty (Studi Pada Konsumen Generasi Z Mcdonald's). *Jurnal Administrasi Bisnis (JABis)*, 22(2), 94. <https://doi.org/10.31315/jurnaladmbisnis.v22i2.12823>
- Ayu, I., & Sari, W. (2017). Pengaruh Green Marketing dan Packaging pada Konsumen Starbucks Coffee Fakultas Ekonomi dan Bisnis Universitas Udayana , Bali-Indonesia. *E-Jurnal Manajemen Unud*, 6(7), 3820–3849. <https://doi.org/ojs.unud.ac.id/index.php/manajemen/article/view/30268>
- Deliana, Y., Fatimah, S., Suminartika, E., & Lucyanatrimo. (2023). Sosialisasi Penggunaan Green Packaging untuk Daerah Wisata di Desa Lembang Socialisation of the Use of Green Packaging for Tourism Areas in Lembatesng Village, Lembang District, West Bandung Regency. *Jurnal Media Kontak Tani Ternak*, 5(2), 59–67. <https://doi.org/10.24198/mktt.v5i2.45808>
- Dzul kifli, M. (2021). Pengaruh Customer Satisfaction Terhadap Customer Loyalty, Switching Cost Sebagai Variabel Mediasi. *Scientific Journal of Reflection: Economic, Accounting, Management and Business*, 4(4), 795–805. <https://doi.org/10.37481/sjr.v4i4.384>
- Farooq, H., Bilal Majid, M. B. M., & Ahmed, H. (2023). *Impact of Green Packaging, Perceived Consumer Effectiveness, and Social Influence on Green Consumption Behavior: The Mediating Role of Green Satisfaction and the Moderating Role of Environmental Awareness*. *Global Management Sciences Review*, VIII(I), 54–69. [https://doi.org/10.31703/gmsr.2023\(viii-i\).04](https://doi.org/10.31703/gmsr.2023(viii-i).04)
- Febrianti, S. Y., Hermawan, A., & Guntara, R. G. (2024). Analisis pengaruh content marketing dan green marketing terhadap purchase decision pada brand skincare Avoskin Beauty. *Journal of Management and Innovation Entrepreneurship (JMIE)*, 2(1), 1072-1081

- Ghozali, I. (2013). *Aplikasi analisis multivariate dengan program ibm spss 21 update pls regresi*. Semarang: Badan Penerbit Universitas Diponegoro.
- Hasan, Z. M., & Shamima, E. S (2024). Measuring the impact of green packaging on consumer purchase intention: A study on selected convenience goods in Banglades. *World Journal of Advanced Research and Reviews*, 23(3), 721–735. <https://doi.org/10.30574/wjarr.2024.23.3.2627>
- Hidayat, M. I., Prameswary, C., & Sari, M. P., (2024). *Analisis Persepsi Warna pada Kemasan Produk Kecantikan Emina*. Jurnal senirupa warna 12(2), 78–87. <https://doi.org/10.36806/jsrw.v12i2.176>
- Immawati, S. A., Sukardiman, D. F., & Setiyawati, R. (2024). Perilaku Pembelian Ramah Lingkungan: Tinjauan terhadap Persepsi Nilai, Persepsi Risiko, dan Kepercayaan di Niceso Kota Tangerang. *Journal of Indonesia Marketing Association (IMA)*, 2(2), 123–133. <https://doi.org/10.69477/ima.v2i2.32>.
- Kotler, Philip, & Kevin Lane Keller. (2012). *Marketing Management*. 14th edition. New Jersey: Pearson Prentic Hall.
- Meisaroh, F., Sudarmiatin, & Hermawan, A. (2022). The effect of e-service quality on repurchase intention through e-trust and e-satisfaction (study of B2B EMOS marketplace's user in Malang). *Journal of Management and Informatics*, 1(3), 1-7. <https://doi.org/10.35870/jimik.v1i3.843>
- Mulyono, F. P., & Sulistyowati, R. (2024). Pengaruh Green Marketing Dan Green Packaging Terhadap Perilaku Konsumen Guardian Supermarket Surabaya. Jurnal Pendidikan Tata Niaga (JPTN), 12(1), 9–19. <https://doi.org/10.26740/jptn.v11n3.p351-362>
- Nata, F. S., & Lestari, U. D. (2024). *Pengaruh Brand Experience , Price , terhadap Customer Satisfaction dan Customer Loyalty Pengguna Smartphone Oppo*. 3(4) : *Journal of Economics and Business Management*. <https://doi.org/10.56444/transformasi.v3i4.2150>.
- Pramesti, M. A., & Chasanah, U. (2021). Pengaruh Kualitas Produk Dan Harga Terhadap Loyalitas Pelanggan Dengan Kepuasan Pelanggan Sebagai Variabel Mediasi. *Jurnal Bina Bangsa Ekonomika*, 14(2), 281–287. <https://doi.org/10.46306/jbbe.v14i2.76>.
- Purwoko, S., & Haryana, A. (2021). Pengaruh Kemasan, Kualitas Dan Harga Produk Susu Terhadap Kepuasan Dan Loyalitas Pelanggan PT. Dwimitra Usaha Global. *Jurnal Administrasi Dan Manajemen*, 10(2), 117–126. <https://doi.org/10.52643/jam.v10i2.1130>.
- Portal Informasi Indonesia. (2023). *Fenomena Cantik Industri Kosmetik*. 3 Desember 2023 <https://www.indonesia.go.id/kategori/editorial/7804/fenomena-cantik-industri-kosmetik?lang=1> diakses 20 Oktober 2024.
- Rizal, H. P., Situmorang, S. H., & Fauzi, A. (2024). *Impact of Brand Image and Relationship Marketing on Customer Loyalty Through Customer Satisfaction*. Jurnal Atlantis press7, 662–673. https://doi.org/10.2991/978-94-6463-234-7_69.
- Rahayuningsih, & Nurtjahjadi, E. (2023). Green Packaging dan Green Advertising Milo UHT terhadap Purchase Intention. *Jurnal Administrasi Dan Manajemen*, 211–223. <https://doi.org/10.52643/jam.v14i2.3789>.

- Safitri, R. V., Ngatno, N., & Farida, N. (2024). The Influence of Green Marketing on Repurchase Intention and Customer Loyalty Through Customer Satisfaction as a Mediation Variable. *Journal of Tourism Economics and Policy*, 4(1), 82–87. <https://doi.org/10.38142/jtep.v4i1.972>.
- Sekaran, & B. (2017). *Metode Penelitian untuk Bisnis (Hanifah & Halim (eds.); 6th ed.)*. Jakarta: Salemba Empat.
- Shoplus. (2024). Trend penurunan penjualan kosmetik di Indonesia https://www.shoplus.net/statistics?from=home_entrance. Diakses 22 Oktober 2024.
- Siti Meisaroh, F., Hidayat Nugroho, R., Andarini, S., & Nirawati, L. (2022). Analisis Pengaruh Citra Merek, Desain Kemasan, dan Harga terhadap Loyalitas Pelanggan Melalui Kepuasan Pelanggan sebagai Variabel Intervening pada Produk Minuman Bersoda Sprite. *Reslaj: Religion Education Social Laa Roiba Journal*, 5(3), 812–825. <https://doi.org/10.47467/reslaj.v5i3.1822>.
- Sofiani, S., & Yulia, T. P. (2024). Pengaruh Kemasan Food & Beverage Ramah Lingkungan Terhadap Kepuasan Konsumen. *Jurnal Manajemen Perhotelan Dan Pariwisata*, 7(1), 52–57. <https://doi.org/10.23887/jmpp.v7i1.74233>.
- Wahyuningsih, Y., Pratisi, C., De Yusa, V., & Paramitasari, N. (2022). *Perspektif green packaging dan green advertising dalam mengkonsumsi AMDK. Seminar Nasional Hasil Penelitian dan Pengabdian Masyarakat 2022*, 1, 62-68
- Winarno, S. tjondro winarno, Cahyono Suminar, A., & Nurhadi, E. (2021). Pengaruh Strategi Inovasi Startup (Futuristik, Ramah Lingkungan, Dan Keunggulan Kualitas) Fore Coffee Terhadap Kepuasan Konsumen. *Journal of Food System and Agribusiness*, 5(1), 48–53. <https://doi.org/10.25181/jofsa.v5i1.1962>.
- Yuliana, R., & Pantawis, S. (2022). Pengaruh Kualitas Produk dan Green Marketing Terhadap Pembelian Ulang Dengan Kepuasan Konsumen Sebagai Variabel Intervening Pada Produk Skincare di Kota Semarang. *ECONBANK: Journal of Economics and Banking*, 4(1), 79–86. <https://doi.org/10.35829/econbank.v4i1.164>

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>)

