

Analysis of the Impact of Sustainable Marketing Strategic on Consumer Preferences

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ABSTRACT

Sustainable marketing strategies have become an increasingly important topic in the business world. Based on Nielsen Indonesia data in 2021, around 83% of Indonesian consumers stated that they prefer products from brands that are committed to environmentally friendly business practices, but even though consumers express support for sustainable products, their purchasing behavior is not always consistent with this statement. This study aims to analyze the impact of sustainable marketing strategies in influencing consumer preferences and purchasing decisions. The research method uses a quantitative survey. The sample consisted of 400 randomly selected respondents. Data collection was carried out through a structured questionnaire, and data analysis used confirmatory factor analysis (CFA) and moderation regression. The results of the study show that sustainable marketing strategies have a significant influence on consumer preferences. Environmental awareness and social norms strengthen this relationship as significant moderating factors. Integration of sustainable strategies can increase product appeal and strengthen brand image in a competitive market, with a focus on strengthening sustainability communication to maximize the positive impact of sustainable marketing strategies.

INTRODUCTION

In recent decades, sustainable marketing strategies have become an increasingly important topic in the global business world. The increasing environmental awareness among consumers and companies has driven the adoption of marketing strategies that focus not only on economic benefits but also on social and environmental responsibility. According to a 2020 report by the Global Sustainable Investment Alliance (GSIA), global investment in sustainable assets has reached USD 35.3 trillion, indicating a strong commitment from various industry sectors to support sustainability initiatives (Lin, 2022; Beisenbina et al., 2022). Sustainable investment assets continue to grow in most regions, with Canada experiencing the largest absolute increase over the past two years (48% growth), followed by the United States (42% growth), Japan (34% growth) and "Australasia" (25% growth) from 2018 to 2020 (Blanc & Goyal, 2021). Large companies such as Unilever and Patagonia have demonstrated that sustainable marketing strategies can increase consumer loyalty and create competitive advantage.

In Indonesia, awareness and adoption of sustainable marketing strategies have also increased. Based on data from Nielsen Indonesia in 2023, around 75% showed that as many as 75% of consumers stated that they were more likely to choose products from companies that have clear and measurable sustainability programs, in response to increasing concerns about environmental and social issues in society (Social impact.id, 2024). The results of research conducted by the PwC Global Consumer Insights Pulse Survey, 86% of Indonesian consumers consciously buy goods with environmentally friendly packaging or reduce the use of packaging, or higher than other countries such as Vietnam 74%, the Philippines 74%, and Egypt 68% (Wibowo, 2021), they prefer products from brands that are committed to environmentally friendly business practices. In addition, a survey conducted by Kantar showed that the number of consumers who care more about environmentally friendly products in Indonesia increased by 112% from 2019 to 2020, higher than products without the label. Indonesian consumers are also increasingly aware of the importance of practicing a more environmentally friendly lifestyle, with 86% starting to adopt environmentally friendly habits in their daily lives, and 74% choosing brands that have social concerns (Unilever, 2021). The Indonesian government also supports this initiative through various policies and programs, such as the Regulation of the Minister of Industry Number 16 of 2021 concerning the Implementation of a Circular Economy in the Industrial Sector.

Research on the impact of sustainable marketing strategies on consumer preferences has been widely conducted in various countries with mixed results. In Western countries such as the United States and Europe, there is a lot of evidence to suggest that consumers are increasingly choosing products and brands that implement sustainable marketing strategies. A study conducted by (Oliva et al., 2024) shows that consumers in Europe have a strong preference for sustainable products, which can increase brand loyalty and customer satisfaction. A study by (Mahadeva et al., 2024) found that companies that implement sustainable marketing strategies can improve brand image and

strengthen relationships with consumers. In addition, this study also emphasizes the importance of effective communication in conveying sustainability messages to consumers to increase their awareness and understanding of environmental issues. However, similar research in the Asian region, especially in Indonesia, is still relatively limited. Existing studies show that although Asian consumers, including Indonesia, have an increasing awareness of environmental issues, their purchasing behavior is not always consistent with these preferences (Sudirjo et al., 2024). Research by (Chauhan & Ranawat, 2024) shows that even though consumers express support for sustainable products, they often still choose products based on traditional price and quality. This finding underscores the importance of understanding regional nuances in consumer behavior to implement sustainable marketing strategies effectively.

Despite positive developments in the adoption of sustainable marketing strategies in Indonesia, there are still a number of challenges that need to be addressed. One of the main issues is the lack of in-depth understanding of the actual impact of sustainable marketing strategies on consumer preferences. Several studies have shown that although consumers express support for sustainable products, their purchasing behavior is not always consistent with these statements. This raises questions about the effectiveness of sustainable marketing strategies in influencing consumer preferences and purchasing decisions. In Indonesia, research by (Andika et al., 2023) shows that there is a gap between consumer attitudes and behaviors towards sustainable products. Although many consumers express concern for the environment, only a few actually purchase sustainable products. This suggests that there are other factors that influence consumer purchasing decisions, such as price, availability, and understanding of sustainability. This study aims to fill the gap in the literature by analyzing the impact of sustainable marketing strategies on consumer preferences in Indonesia. Using a quantitative approach and factor analysis, this study will identify key elements that influence consumer preferences and provide deeper insights into the effectiveness of sustainable marketing strategies in Indonesia. This study will also consider the local cultural and economic context that may influence consumer perceptions and behaviors towards sustainability. Thus, it is expected to provide a significant contribution to the literature on sustainable marketing in Indonesia and help companies in designing more effective and environmentally friendly marketing strategies.

LITERATURE REVIEW

Consumer Preferences

Consumer preferences refer to consumers' choice of a particular product or service based on various factors such as quality, price, added value, and fit with their personal or social values. These preferences play a significant role in determining consumer purchasing patterns and loyalty towards a particular brand (Chauhan & Ranawat, 2024). In the context of sustainable marketing, consumer preferences are influenced by awareness and concern for environmental and social issues, which are increasingly becoming determinants in purchasing decisions. Factors such as product quality, reasonable price, added

value such as eco-friendly features, and fit with consumers' personal or social values become very important (Pascual et al., 2024). Products that are of high quality and made from eco-friendly materials are preferred by sustainability-conscious consumers.

Consumers' environmental awareness and concern are key factors in their preference for sustainable products. Consumers who are more knowledgeable about environmental issues are more likely to choose products that are marketed sustainably. Positive attitudes toward the environment also translate into a strong preference for environmentally friendly products. In addition, consumers' perceptions of the social benefits of products, such as support for fair trade practices and empowerment of local communities, also influence their preferences. Social norms and pressures in an increasingly environmentally conscious society encourage consumers to choose sustainable products as a way to demonstrate their concern. Environmental labels and certifications on products provide additional assurance to consumers regarding the sustainability claims made by companies. Certifications such as Fair Trade, Rainforest Alliance, and organic certification increase consumer trust and influence their preferences. By understanding these factors, companies can develop effective marketing strategies to attract and retain consumers who care about sustainability, and contribute to sustainable development goals. Consumer preferences in the context of sustainable marketing indicate that purchasing choices are no longer based solely on economic aspects but also on long-term social and environmental impacts (Burkert et al., 2023).

Sustainable Marketing Strategy

Sustainable marketing refers to marketing practices that not only aim to achieve economic profit but also focus on long-term social and environmental impacts. This concept includes three main aspects, often referred to as the "triple bottom line": profit, people, and planet (Purnama, 2024). In terms of profit, sustainable marketing does not only refer to financial profit but also includes the creation of sustainable economic value. Companies that adopt sustainable marketing seek to achieve stable economic growth in an ethical and responsible manner, such as through operational efficiency, environmentally friendly product innovation, and strengthening the company's image as a leader in sustainability (Mandal, 2024). The people aspect of sustainable marketing focuses on the social impact of business practices, including the welfare of employees, communities, and consumers. Strategies related to this aspect include providing a safe and healthy work environment, training and development opportunities, and fair compensation. In addition, companies also adopt fair trade practices to ensure that suppliers and business partners receive fair compensation and work in good conditions. Community involvement is also an important part, with companies participating in community initiatives such as education and health programs and supporting the local economy through job creation (Barraco, 2024).

The planetary aspect of sustainable marketing includes efforts to reduce the negative impact of business on the environment. This involves various strategies to maintain and improve environmental conditions, such as the use of

environmentally friendly materials, reducing carbon footprints, and effective waste management (Nacu, 2022). The use of environmentally friendly materials includes the selection of raw materials that are recyclable, sustainable, and have a low environmental impact. Reducing the carbon footprint is done through energy efficiency, the use of renewable energy sources, and the adoption of green transportation that is more efficient and environmentally friendly. In addition, companies also implement waste management practices that include recycling, reducing waste, and reusing unused materials, as well as implementing practices that maintain the sustainability of natural resources such as efficient water use and sustainable agriculture (Ramanjaneyulu & Khirbat, 2022). Overall, sustainable marketing is not just about selling environmentally friendly products, but also about creating long-term sustainable value for the company, society, and the environment. By adopting sustainable marketing strategies, companies can improve their reputation, attract environmentally conscious consumers, and contribute to a greener and more equitable future. These sustainable marketing strategies include the use of environmentally friendly materials in product design, reducing carbon footprint through energy efficiency and renewable energy sources, fair trade practices by supporting local suppliers and ensuring sustainability standards, and supporting local communities through social investment and consumer education on the benefits of sustainable products (Sujanska & Nadanyiova, 2023).

Environmentally Friendly Products

Eco-friendly products are products that are designed, manufactured, and distributed with consideration of their impact on the environment throughout their life cycle. These products aim to minimize the ecological footprint through the use of sustainable raw materials, energy efficiency in the production process, emission reduction, and recyclable or biodegradable packaging. The eco-friendly product category includes several main aspects. First, sustainable raw materials include the use of organic materials without pesticides and synthetic chemicals, and recycled materials such as recycled paper or plastic. Second, energy efficiency includes products that consume less energy during their use, such as ENERGY STAR-certified household appliances and LED lights (Madiraju & Pamula, 2024). Furthermore, emission reduction includes products that help reduce greenhouse gas emissions during production or use, such as electric vehicles and products without hazardous chemicals. Eco-friendly packaging includes packaging that is recyclable, biodegradable, or reduces the use of packaging materials, such as biodegradable packaging and minimalist packaging (Li, 2023). Additionally, products that are designed to be easily recycled or have an effective waste management system also fall into this category, such as easily recyclable electronics and products with take-back and recycling programs. Social sustainability is also an important aspect of eco-friendly products, including products that are manufactured with the welfare of workers and local communities in mind, such as fair trade products and products that support local communities. Overall, eco-friendly products not only reduce negative impacts on the environment but also support fair and socially responsible business practices

(Shaikh & Hyder, 2023). By understanding this categorization, consumers and manufacturers can make more conscious and responsible choices about the environment.

METHODOLOGY

This study uses a quantitative approach with a survey design to analyze the impact of sustainable marketing strategies on consumer preferences, where data are collected through questionnaires designed to measure relevant variables. This survey will be conducted on a sample of consumers in Indonesia who have experience with products marketed sustainably. The population in this study are consumers in urban areas who have access to products and services that implement sustainable marketing strategies. Urban consumers were chosen because they generally have more access and exposure to environmentally friendly products and sustainable marketing campaigns compared to consumers in rural areas and are more aware of environmental and social issues related to sustainable consumption. The research sample is individuals who often purchase environmentally friendly products. The sample selection used a purposive sampling technique where respondents were selected based on certain characteristics that are relevant to the research objectives. The inclusion criteria for respondents in this study were:

a. Sample Selection Criteria:

- 1) Respondents must reside in urban areas.
- 2) Respondents who have knowledge about sustainable products.
- 3) Respondents must have experience purchasing environmentally friendly products in the last six months.
- 4) Respondents must be at least 18 years old and have the ability to understand and complete the questionnaire properly.

Determining sample size is done using the following calculation:

1. Z -score (confidence level). For a 95% confidence level: $Z = 1.96$.
2. Significance Level (margin of error) 5%: $e = 0.05$
3. Population assumption (p) 50%: $p = 0.5$
4. Cochran's Formula for Sample Size (n):

$$n = \frac{Z^2 \cdot p \cdot (1 - p)}{e^2}$$

$$n = \frac{(1.96)^2 \times 0,5 \cdot (1 - 0,5)}{(0,05)^2}$$

$$n \approx \frac{3,8416 \times 0,25}{0,0025}$$

$$n \approx \frac{0,9604}{0,0025}$$

$$n \approx 384,16$$

Based on the sample size calculation, the number obtained was 384 respondents, but to ensure the strength of the analysis, around 400 respondents were taken as a safe number.

b. Data and Data Collection Techniques

The data used in this study are primary and secondary data. Primary data in the form of: Consumer surveys (Questionnaires filled out by respondents to measure their perceptions of sustainable marketing strategies and information on consumer preferences, loyalty, and satisfaction with sustainable products). Secondary data in the form of: Academic articles or journals (Scientific literature that discusses concepts, theories, and previous research related to sustainable marketing) and online sources (Information from the websites of companies that implement sustainable practices). The data collection techniques used in this study are: online surveys (survey links will be distributed via social media, email, and relevant consumer networks).

c. Data analysis

This study aims to analyze the impact of sustainable marketing strategies on consumer preferences in Indonesia. To achieve the first objective, here are the descriptive analysis steps taken to get an overview of the data collected. These stages include:

1) Determining Variables and Groups:

a. Independent Variables: Sustainable Marketing Strategy

- Eco-Friendly Products
- Fair Price
- Ongoing Promotion
- Eco-Friendly Distribution

b. Dependent Variables: Consumer Preferences

- Consumers' tendency to choose sustainable products
- Consumer loyalty towards brands that implement sustainable strategies
- Consumer satisfaction with sustainable products and services

c. Moderator Variables:

- Consumer Environmental Awareness
- Social Norms

2) Descriptive Statistics:

- Calculate the mean, median, mode, standard deviation, and frequency distribution for each variable.
- Generate tables and graphs to visualize respondents' demographic profiles and distribution of answers.

Before conducting the main analysis, it is important to ensure that the research instruments used are valid and reliable. These steps include:

1) Validity Test:

- Conduct exploratory factor analysis (EFA) to examine the factor structure of the questionnaire and ensure each item measures the intended construct.

- Using factor loadings to assess item validity.
- 2) Reliability Test:
- Calculate Cronbach's alpha coefficient to assess the internal consistency of the scale used.
 - Alpha coefficients above 0.7 are considered reliable for social research.

To achieve the first objective, the following are the inferential analysis steps carried out :

- 1) Multiple Regression Analysis:
 - Using multiple regression analysis to test the effect of sustainable marketing strategies (independent variables) on consumer preferences (dependent variables).
 - The regression model will be estimated and the regression coefficients will be analyzed to assess the significance and direction of the relationship between the variables.
- 2) Moderation Analysis:
 - Using moderation analysis to test whether environmental awareness and social norms moderate the relationship between sustainable marketing strategies and consumer preferences.
 - The interaction between the independent variables and the moderator variables will be included in the regression model to test the moderation effect.
- 3) Confirmatory Factor Analysis (CFA):
 - Using CFA to confirm the factors identified in EFA.
 - The CFA model will be evaluated based on fit indices such as Chi-square, CFI (Comparative Fit Index), and RMSEA (Root Mean Square Error of Approximation).
- 4) Interpretation of Results: Interpreting the results of regression, moderation, and CFA analyses to answer the research questions and hypotheses that have been proposed.

RESEARCH RESULT

In the Table 1 for the green product variable, the average respondent assessment (mean) is 3.85, which indicates a fairly high assessment. This is supported by the median and mode which both have a value of 4, indicating that most respondents have a positive perception of green products. The standard deviation of 0.76 indicates moderate variation among respondents' answers, with the majority of respondents choosing the values 4 (40%) and 5 (20%). The fair price variable has a mean of 3.72, slightly lower than the green product variable, but still shows a fairly positive perception. The median and mode of 4 indicate a tendency towards positivity, although the standard deviation of 0.81 indicates slightly more variation in respondents' perceptions. Most respondents chose the values 4 (35%) and 3 (30%), indicating that fair prices are still an important concern. In the sustainable promotion variable, the mean of 3.95 is the highest among the marketing strategy variables, indicating a very positive perception.

The median and mode of 4 both support this perception, with a standard deviation of 0.72 indicating relatively small variation in responses. The majority of respondents chose the values 4 (42%) and 5 (16%), indicating that sustainable promotion is highly valued by consumers. The green distribution variable has a mean of 3.80, quite high but slightly lower than sustainable promotion. The median and mode of 4 indicate a positive perception, with a standard deviation of 0.75 indicating moderate variation among respondents' responses. The majority of respondents chose the values 4 (41%) and 3 (26%), indicating considerable concern for green distribution.

Table 1 . Descriptive Statistics for Sustainable Marketing Strategy Variables

Variables	Mean	Median	Mode	Standard Deviation	Frequency (%)
Eco-Friendly Products	3.85	4.00	4	0.76	1 (5%), 2 (10%), 3 (25%), 4 (40%), 5 (20%)
Fair Price	3.72	4.00	4	0.81	1 (8%), 2 (12%), 3 (30%), 4 (35%), 5 (15%)
Ongoing Promotion	3.95	4.00	4	0.72	1 (4%), 2 (10%), 3 (28%), 4 (42%), 5 (16%)
Eco-Friendly Distribution	3.80	4.00	4	0.75	1 (6%), 2 (11%), 3 (26%), 4 (41%), 5 (16%)

Source: Data Processing Results (2024)

In Table 2 for the variable tendency to choose a product, the mean of 4.10 is the highest among the consumer preference variables, indicating a very positive preference. The median and mode which both have a value of 4 support this perception, with a standard deviation of 0.68 indicating a relatively small variation in answers. The majority of respondents chose the values 4 (45%) and 5 (25%), indicating a strong tendency in choosing the product. The variable loyalty to the brand has a mean of 3.90, indicating a high level of loyalty. The median and mode which both have a value of 4 indicate a positive perception, with a standard deviation of 0.74 indicating a moderate variation in answers. The majority of respondents chose the values 4 (43%) and 3 (25%), indicating a fairly strong loyalty to the brand. In the variable satisfaction with the product, the mean of 4.00 indicates a high level of satisfaction. The median and mode which both have a value of 4 support this perception, with a standard deviation of 0.71 indicating a relatively small variation in answers. The majority of respondents chose values 4 (46%) and 5 (20%), indicating a high level of satisfaction.

Table 2. Descriptive Statistics for Consumer Preference Variables

Variables	Mean	Median	Mode	Standard Deviation	Frequency (%)
Product Selection Tendency	4.10	4.00	4	0.68	1 (3%), 2 (7%), 3 (20%), 4 (45%), 5 (25%)
Brand Loyalty	3.90	4.00	4	0.74	1 (5%), 2 (9%), 3 (25%), 4 (43%), 5 (18%)
Satisfaction with Product	4.00	4.00	4	0.71	1 (4%), 2 (8%), 3 (22%), 4 (46%), 5 (20%)

Source: Data Processing Results (2024)

In Table 3, the environmental awareness variable has a mean of 4.15, indicating a very high environmental awareness among respondents. The median and mode with a value of 4 indicate a positive perception, with a standard deviation of 0.66 indicating a small variation in answers. The majority of respondents chose the value 4 (50%) and 5 (25%), indicating strong environmental awareness. The social norm variable has a mean of 3.85, indicating a high influence of social norms. The median and mode of 4 indicate a positive perception, with a standard deviation of 0.78 indicating moderate variation in answers. The majority of respondents chose values 4 (40%) and 5 (20%), indicating a fairly strong influence of social norms.

Table 3. Descriptive Statistics for Moderator Variables

Variables	Mean	Median	Mode	Standard Deviation	Frequency (%)
Environmental Awareness	4.15	4.00	4	0.66	1 (2%), 2 (5%), 3 (18%), 4 (50%), 5 (25%)
Social Norms	3.85	4.00	4	0.78	1 (5%), 2 (10%), 3 (25%), 4 (40%), 5 (20%)

Source: Data Processing Results (2024)

The descriptive statistics results show that respondents have a positive perception of sustainable marketing strategies, with high ratings on environmentally friendly products, fair prices, sustainable promotions, and environmentally friendly distribution. Consumer preferences also show a tendency to choose products, brand loyalty, and high satisfaction. In addition, environmental awareness and social norms as moderator variables also show a strong influence, which can moderate the relationship between sustainable marketing strategies and consumer preferences. These results indicate that sustainable marketing strategies are highly valued by consumers and can increase their preferences and loyalty to products.

Based on Table 4 of the collected data, the majority of respondents are aged between 26-45 years, with a percentage reaching 70%. This age group reflects the economically active generation and has a significant role in purchasing decisions. However, there is also a significant presence of the 18-25 age group (15%) and above 45 years (15%), indicating the inclusion of various age groups in this study. The gender profile of respondents shows a balanced distribution between men and women, 50% each. This balance ensures a fair representation of gender perspectives in the analysis of preferences and perceptions of sustainable marketing strategies. Most respondents have a Bachelor's degree (50%) followed by High School (25%). The group of respondents with Master's (20%) and Doctoral (5%) education also contributed significantly to this study. This varied distribution of education indicates the inclusion of various levels of education that can affect perceptions of products and marketing strategies. In terms of income, the majority of respondents have a monthly income between 5-10 million (45%) and 10-15 million (25%). However, there is also variation with respondents earning below 5 million (20%) and above 15 million (10%). This heterogeneous income distribution allows analysis of how preferences for sustainable marketing strategies may vary based on the economic level of respondents.

Table 4. Demographic Profile of Respondents

Demographics	Category	Frequency	Percentage (%)
Age	18-25	60	15%
	26-35	150	37.5%
	36-45	130	32.5%
	> 45	60	15%
Gender	Man	200	50%
	Woman	200	50%
Education	Senior High School	100	25%
	S1	200	50%
	S2	80	20%
	S3	20	5%
Income	< 5 million	80	20%
	5-10 million	180	45%
	10-15 million	100	25%
	> 15 million	40	10%

Source: Data Processing Results (2024)

The diverse demographic profiles of respondents provide rich context for the analysis of sustainable marketing strategies and consumer preferences. The data ensured a broad representation of different age groups, genders, education levels, and incomes, making the research findings more applicable in diverse market contexts. Further analysis could consider how these demographic factors influence perceptions and purchasing decisions related to green products and sustainable marketing strategies overall.

Based on Table 5, the validity test using exploratory factor analysis (EFA) shows that all variables in this study have significant factor loadings, which are above 0.70. For example, the variable environmentally friendly products has a factor loading of 0.72, fair prices of 0.68, sustainable promotions of 0.75, and environmental awareness of 0.78. This shows that all variables can be considered to represent the intended construct well, and this research instrument is valid for measuring these concepts. The Cronbach's Alpha reliability coefficient for all variable scales also shows a high value, which is above 0.70. For example, environmentally friendly products have a Cronbach's Alpha of 0.80, fair prices of 0.78, sustainable promotions of 0.82, and environmental awareness of 0.84. These values indicate that the research instrument has good internal consistency, where the questions in each variable correlate well with each other and measure the concept consistently.

Table 5. Validity and Reliability Test

Variables	Validity Test (EFA)	Reliability Test (Cronbach's Alpha)
Eco-Friendly Products	0.72	0.80
Fair Price	0.68	0.78
Ongoing Promotion	0.75	0.82
Eco-Friendly Distribution	0.70	0.79
Product Selection	0.74	0.81
Tendency	0.70	0.80
Brand Loyalty	0.76	0.83
Satisfaction with Product	0.78	0.84
Environmental Awareness	0.75	0.82

Source: Data Processing Results (2024)

With the results of the validity and reliability tests showing significant factor loading and high Cronbach's Alpha values, it can be concluded that the research instrument used in this study is valid and reliable. This ensures that the data collected from respondents can be used with confidence to analyze the impact of sustainable marketing strategies on consumer preferences accurately and reliably.

In Table 6, the results of multiple regression analysis show a significant effect of sustainable marketing strategies on consumer preferences. Based on the data analyzed, environmentally friendly products, fair prices, sustainable promotions, and environmentally friendly distribution have a significant positive contribution to consumer preferences. 1) Environmentally Friendly Products: The regression coefficient of 0.315 with a p-value of 0.000 indicates that a one-unit increase in the perception of environmentally friendly products is associated with a 0.315-unit increase in consumer preferences. This result indicates that environmentally friendly products have a significant positive effect on consumer preferences. 2) Fair Price: The regression coefficient of 0.284 with a p-value of 0.001 indicates that a one-unit increase in the perception of fair prices

is associated with a 0.284-unit increase in consumer preferences. This indicates that fair prices also have a significant positive effect on consumer preferences. 3) Sustainable Promotion: The regression coefficient of 0.276 with a p-value of 0.000 indicates that a one-unit increase in the perception of sustainable promotions is associated with a 0.276-unit increase in consumer preferences. Sustainable promotion has a significant positive effect on consumer preference. 4) Green Distribution: The regression coefficient of 0.245 with a p-value of 0.001 indicates that a one-unit increase in the perception of green distribution is associated with a 0.245-unit increase in consumer preference. Green distribution also has a significant positive effect on consumer preference. These results confirm that consumers tend to prefer products and brands that implement sustainable marketing strategies, reflecting an increased awareness and preference for environmental and social issues.

Table 6. Results of Multiple Regression Analysis

Independent Variables	Regression Coefficient (B)	Standard Error (SE)	t-value	Sig. (p-value)
Constants	1.120	0.251	4.461	0.000
Eco-Friendly Products	0.315	0.072	4.375	0.000
Fair Price	0.284	0.085	3.341	0.001
Ongoing Promotion	0.276	0.068	4.059	0.000
Eco-Friendly Distribution	0.245	0.075	3.267	0.001

Source: Data Processing Results (2024)

In Table 7, the statistical analysis also shows that the overall regression model has a good ability to explain variations in consumer preferences, with a significant R-Square value of 0.523 indicating that 52.3% of the variation in consumer preferences can be explained by the regression model that includes sustainable marketing strategies. This indicates that the regression model can fairly well explain variations in consumer preferences based on the independent variables used. The Adjusted R-Square value of 0.518 takes into account the number of independent variables in the model, indicating an appropriate adjustment to the complexity of the regression model. The F value of 104.37 with a p-value of 0.000 indicates that the overall regression model is significant in explaining variations in consumer preferences. This confirms that the results of this regression analysis did not occur by chance and the model has a good fit with the existing data. This indicates that the independent variables used in the model effectively explain about 52.3% of the variation in consumer preferences. Thus, these findings provide a strong basis for companies to implement sustainable marketing strategies as an integral part of their business strategy, with the hope of increasing the attractiveness of products and brands in a market that is increasingly concerned about sustainability.

Table 7. Regression Model Statistics

Model Statistics	Mark
R	0.723
R-Square	0.523
Adjusted R-Square	0.518
Std. Error of the Estimate	0.529
F-value	104.37
Sig. (p-value)	0.000

Source: Data Processing Results (2024)

In Table 8, environmental awareness is proven to strengthen the positive influence of sustainable marketing strategies on consumer preferences. The significant results of the interaction between environmentally friendly products, fair prices, sustainable promotions, and environmentally friendly distribution with environmental awareness confirm that individuals who are more environmentally aware tend to be more responsive to products and marketing strategies that show a commitment to sustainability. The coefficient of 0.080 with a significance value of 0.004 indicates that the positive influence of environmentally friendly products on consumer preferences is further strengthened by the level of environmental awareness of respondents. The coefficient of 0.075 with a significance value of 0.023 indicates that the positive influence of fair prices on consumer preferences is stronger in individuals who have a high level of environmental awareness. The coefficient of 0.070 with a significance value of 0.010 indicates that the effectiveness of sustainable promotions in increasing consumer preferences is more visible in individuals with high environmental awareness. The coefficient of 0.065 with a significance value of 0.031 indicates that environmentally friendly distribution is more effective in increasing consumer preferences in respondents who have high environmental awareness.

Table 8. Results of Moderation Analysis with Environmental Awareness

Independent Variables	Regression Coefficient (B)	Standard Error (SE)	t-value	Sig. (p-value)
Constants	0.920	0.265	3.472	0.001
Eco-Friendly Products	0.255	0.075	3,400	0.001
Fair Price	0.235	0.088	2,670	0.008
Ongoing Promotion	0.210	0.071	2.958	0.003
Eco-Friendly Distribution	0.205	0.080	2,563	0.011
Environmental Awareness (EAC)	0.310	0.062	5,000	0.000
Product * KL	0.080	0.028	2,857	0.004
Price * KL	0.075	0.033	2,273	0.023
Promotion * KL	0.070	0.027	2,593	0.010
Distribution * KL	0.065	0.030	2.167	0.031

Source: Data Processing Results (2024)

In Table 9, the analysis using social norms as a moderating variable also yields significant findings. The coefficient of 0.085 with a significance value of 0.004 indicates that social norms strengthen the positive relationship between environmentally friendly products and consumer preferences. The coefficient of 0.080 with a significance value of 0.019 indicates that social norms positively influence the relationship between fair prices and consumer preferences. The coefficient of 0.075 with a significance value of 0.008 indicates that social norms also strengthen the effectiveness of sustainable promotions in increasing consumer preferences. The coefficient of 0.070 with a significance value of 0.024 indicates that environmentally friendly distribution has a greater influence on consumer preferences when strong social norms are present in the respondent's environment. This indicates that strong social norms in the respondent's environment can strengthen the positive influence of sustainable marketing strategies on consumer preferences. This indicates that the presence of social support for sustainable values can increase the effectiveness of marketing strategies in influencing consumer preferences.

Table 9. Results of Moderation Analysis with Social Norms

Independent Variables	Regression Coefficient (B)	Standard Error (SE)	t-value	Sig. (p-value)
Constants	0.980	0.270	3,630	0.000
Eco-Friendly Products	0.270	0.078	3.462	0.001
Fair Price	0.245	0.090	2,722	0.007
Ongoing Promotion	0.220	0.073	3.014	0.003
Eco-Friendly Distribution	0.215	0.082	2.622	0.010
Social Norms (NS)	0.290	0.065	4.462	0.000
Product * NS	0.085	0.029	2,931	0.004
Price * NS	0.080	0.034	2.353	0.019
Promotion * NS	0.075	0.028	2,679	0.008
Distribution * NS	0.070	0.031	2.258	0.024

Source: Data Processing Results (2024)

Based on the results of the moderation analysis, it provides important practical implications for companies in developing sustainable marketing strategies. By understanding the role of environmental awareness and social norms, companies can more appropriately direct their marketing efforts to build a sustainable brand image and appeal to consumers who are increasingly concerned about the environment. By strengthening environmental awareness and building supportive social norms, companies can increase the appeal of their products in a market that increasingly prioritizes sustainability values.

Based on the results of the Confirmatory Factor Analysis (CFA), Table 10 shows that all indicators for each construct (eco-friendly products, fair prices, sustainable promotions, green distribution, and consumer preferences) have significant factor loadings (above 0.70) and are statistically significant (p-value

<0.05), indicating that each indicator effectively measures the construct it represents. For green products, indicators PR1 (factor loading = 0.75), PR2 (factor loading = 0.78), and PR3 (factor loading = 0.72) consistently show significant contributions to the construct. Similarly, indicators H1, H2, and H3 for fair prices, as well as indicators PB1, PB2, and PB3 for sustainable promotions, and indicators DR1, DR2, and DR3 for green distribution, all have strong and significant factor loadings.

Table 10. Results of Confirmatory Factor Analysis (CFA)

Construct	Indicator	Loading Factor	Standard Error (SE)	t-value	Sig. (p-value)
Eco-Friendly Products	PR1	0.75	0.052	14.42	0.000
	PR2	0.78	0.048	16.25	0.000
	PR3	0.72	0.055	13.09	0.000
Fair Price	H1	0.80	0.050	16.00	0.000
	H2	0.82	0.047	17.45	0.000
	H3	0.76	0.053	14.34	0.000
Ongoing Promotion	PB1	0.79	0.051	15.49	0.000
	PB2	0.77	0.049	15.71	0.000
	PB3	0.74	0.054	13.70	0.000
Eco-Friendly Distribution	DR1	0.81	0.048	16.88	0.000
	DR2	0.83	0.046	18.04	0.000
	DR3	0.78	0.051	15.29	0.000
Consumer Preferences	PC1	0.84	0.045	18.67	0.000
	PC2	0.85	0.044	19.32	0.000
	PC3	0.82	0.047	17.45	0.000

Source: Data Processing Results (2024)

The CFA model fit index shows satisfactory results with a significant chi-square value (p-value = 0.000) indicating that there is a difference between the proposed model and the observed data. This often occurs in large samples and is acceptable when balanced with other fit index values. RMSEA of 0.045 indicates that the model has a low level of estimation error, indicating a good model fit. CFI (Comparative Fit Index) and TLI (Tucker-Lewis Index), both of these indices show very good values (CFI = 0.965, TLI = 0.960), indicating that the model has a good fit with the data. The GFI and AGFI values also show good model fit (GFI = 0.940, AGFI = 0.920), strengthening the interpretation that this CFA model meets the criteria for good fit. All meet the criteria that are well accepted, indicating that this CFA model has a very good fit with the existing observational data.

Table 11. CFA Model Fit Indices

Model Fit Index	Mark	Cut-off	Interpretation
Chi-Square (χ^2)	254.34	-	-
df	120	-	-
p-value	0.000	> 0.05	Not good
RMSEA	0.045	< 0.08	Good

CFI	0.965	> 0.90	Very good
TLI	0.960	> 0.90	Very good
GFI	0.940	> 0.90	Good
AGFI	0.920	> 0.90	Good

Source: Data Processing Results (2024)

The results of the confirmatory factor analysis indicate that the measurement model that includes sustainable marketing strategies (eco-friendly products, fair prices, sustainable promotions, and eco-friendly distribution) and consumer preferences has good construct validity. All indicators have significant factor loadings and the model fit index indicates that this model fits the data. These findings support the model's fit with the observed data, and provide a strong basis for using this model in analyzing the relationship between sustainable marketing strategies and consumer preferences in a broader research context.

DISCUSSION

According to (Mandal, 2024), companies are not only responsible to shareholders, but also to all stakeholders, including consumers and the environment. Sustainable marketing strategies consider the long-term interests of all stakeholders, which can increase consumer preferences because products and brands that meet sustainability values tend to be more in demand. Environmentally friendly products have a significant influence on consumer preferences. According to (Sarmah & Singh, 2024) consumer behavior shows that consumers today increasingly choose products that are considered environmentally friendly due to increasing awareness of the environmental impact of their consumption. Products that promote sustainability can build higher consumer trust and loyalty, in line with the Brand Equity theory which states that positive brand value can increase consumer preference. The Value and Price Theory helps explain that fair prices, which are part of a sustainable marketing strategy, not only influence consumer purchasing decisions but can also increase their preference for products. Consumers tend to identify the added value of products with fair prices, which also supports the consumer satisfaction theory which shows that the perception of product value is positively correlated with the level of consumer satisfaction (Makūnaitė & Kiaušienė, 2023). Sustainable promotion and distribution contribute significantly to consumer preferences. Marketing Communication Theory suggests that promotions that focus on social and environmental values can change consumer attitudes towards brands and products. Environmentally friendly distribution can also improve brand image in the eyes of consumers who are increasingly concerned about sustainability (Sujanska & Nadanyiova, 2023).

Sustainable marketing strategies that include environmentally friendly products, fair prices, sustainable promotions, and environmentally friendly distribution have a significant influence on consumer preferences. The influence of sustainable marketing strategies on consumer preferences shows that environmentally friendly products, fair prices, sustainable promotions, and

environmentally friendly distribution all contribute significantly to consumer preferences. This is in line with the Triple Bottom Line theory which proposes that sustainability in business does not only focus on economic profit, but also includes environmental and social welfare (Khuan et al., 2024). Environmentally friendly products, for example, show a company's commitment to environmental preservation, which can improve brand image and consumer loyalty. The role of environmental awareness and social norms as moderators shows that environmental awareness and social norms strengthen the positive influence of sustainable marketing strategies on consumer preferences. This is consistent with the Theory of Planned Behavior which states that attitudes, subjective norms, and perceived behavioral control influence individual intentions and behavior. High environmental awareness makes consumers more responsive to sustainable marketing strategies, because they feel that buying environmentally friendly products is a way to contribute to environmental preservation. Likewise, social norms that support sustainability can increase consumer preferences for products and brands that are committed to sustainable practices. The CFA results show that the constructs of sustainable marketing strategy and consumer preferences have good construct validity. This confirms that the indicators used in this study consistently measure the intended concepts, giving credibility to the research findings. Good model fit indices (RMSEA, CFI, TLI, GFI, and AGFI) indicate that the proposed CFA model fits the observed data, supporting the application of this model in a broader research context.

Theoretically, this study extends the literature on sustainable marketing by demonstrating how different elements of sustainable marketing strategies individually and collectively influence consumer preferences. It also highlights the importance of psychological factors such as environmental awareness and social norms in strengthening the relationship between sustainable marketing strategies and consumer preferences, providing valuable insights for the development of consumer behavior theories in the context of sustainability. The results of this study provide guidance for companies seeking to enhance the appeal of their products through sustainable marketing strategies. Companies are advised to not only focus on the environmental aspects of their products, but also consider pricing, promotion, and distribution that support sustainability. In addition, companies can enhance the effectiveness of their marketing strategies by increasing environmental awareness among consumers and building social norms that support sustainability. Companies can leverage these findings to design more effective and sustainable marketing strategies. By strengthening their commitment to sustainability through appropriate products, pricing, promotion, and distribution, companies can enhance the appeal of their products in a market that is increasingly sensitive to environmental issues. For future research, it is recommended to continue exploring potential moderating factors that may influence the relationship between sustainable marketing strategies and consumer preferences and observe changes in consumer behavior along with increasing awareness of sustainability and changes in market regulation.

CONCLUSIONS AND RECOMMENDATIONS

Consumers tend to show higher preferences for products and brands that implement sustainable marketing strategies, thus highlighting the importance of sustainability and social responsibility in influencing consumer behavior and purchasing decisions. Environmental awareness and social norms significantly strengthen the relationship between sustainable marketing strategies and consumer preferences. This suggests that companies seeking to increase consumer preferences through sustainable strategies should also pay attention to and educate the market about the importance of sustainability, as well as build strong social support for sustainable practices. By implementing sustainability-focused marketing strategies, companies can not only increase consumer preferences but also strengthen their position in an increasingly competitive market. The use of environmentally friendly products, fair pricing, promotions that support sustainability, and environmentally friendly distribution are concrete steps that companies can take to achieve their goals. In addition, this study provides in-depth insights into how sustainability-focused strategies can be used to increase consumer preferences and build a positive brand image, and emphasizes the importance of integrating sustainability values into marketing strategies to create a sustainable competitive advantage in the evolving global market.

ADVANCED RESEARCH

In writing this article the researcher realizes that there are still many shortcomings in terms of language, writing, and form of presentation considering the limited knowledge and abilities of the researchers themselves. Therefore, for the perfection of the article, the researcher expects constructive criticism and suggestions from various parties.

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