University of Economics in Katowice

sciendo

Hermanto Hermanto

https://orcid.org/0000-0002-6118-8276

Department of Management
Faculty of Economics and Business
Universitas Panca Marga, Probolinggo
Indonesia
hermanto@upm.ac.id

Widji Astuti

https://orcid.org/0000-0001-8941-0329

Department Management
Faculty of Economics and Business
Universitas Merdeka, Malang
Indonesia
widji_asttk@yahoo.com

Pudjo Sugito

https://orcid.org/0000-0003-4664-6096

Department of Management
Faculty of Economics and Business
Universitas Merdeka, Malang
Indonesia
pudjo.sugito@unmer.ac.id

Boge Triatmanto

https://orcid.org/0000-0001-5525-9464

Department Management
Faculty of Economics and Business
Universitas Merdeka, Malang
Indonesia
boge.triatmanto@unmer.ac.id

Can green attitude complement the influence of green marketing on green purchase intention for fast food products?

Abstract

Aim/purpose – This study aims to determine whether a green attitude can complement the influence of green marketing on green purchase intention for environmentally friendly fast-food products, considering the orientation toward sustainable environmental preservation.

Design/methodology/approach – The research uses a quantitative method with a survey technique, with a five Likert scale questionnaire ranging from "1" (strongly disagree) to "5" (strongly agree). The object of the study is a fast-food franchise product. The data were collected from 500 respondents from cities in East Java using a non-probability sampling of respondents who have purchased and consumed fast food products. The data were analyzed using structural equation modeling with several stages of analysis, includ-

ing an instrument feasibility test using common method bias analysis, validity and relia-bility analysis, measurement model analysis, and structural model analysis with the help of SmartPLS.

Findings – Green promotion, products, and places can positively contribute to green marketing, whereas green price plays a lesser role. Effective green marketing can change consumers' attitudes positively, ultimately increasing their purchase intentions. Additionally, green attitude plays a crucial role; it complements the influence of green marketing on green purchase intention and enhances consumers' purchase intentions toward environmentally friendly products.

Research implications/limitations – This research will provide implications for expanding green marketing and the theory of planned behaviour.

Originality/value/contribution – A formative green marketing model can enhance green attitudes. The practical implications are expected to provide insights for marketing managers to increase consumer purchase intentions by implementing green marketing strategies that can change consumers' positive attitudes toward green marketing.

Keywords: green attitude, green marketing, green purchasing intention, consumer behavior, sustainability.

JEL Classification: M31, A11, D12, Q56.

1. Introduction

The increasing consumer awareness of environmental issues has changed their purchasing behavior (Ogiemwonyi et al., 2023, p. 3). Consumers have become more sensitive to the products they buy and tend to choose environmentally friendly products. This has led to the emergence of green consumerism as an extension of the global consumer movement (Budac & Țîmbalari, 2023). This movement is based on the recognition that consumers have the right to receive products that are not only safe but also environmentally friendly (Mabkhot, 2024).

The introduction and understanding of green marketing have encouraged companies to incorporate environmental issues into their marketing strategies (Huang et al., 2024). The increasing demand from environmentally conscious markets has intensified the focus on these aspects, as reflected in the popularity of ISO-14000 (Arocena et al., 2023). This environmental management system indicates that products and services comply with environmental management guidelines. Developed countries have been leading in addressing and developing environmental issues since the 1990s (Taghian et al., 2016).

Companies are actively working to maintain a reputation for being environmentally friendly (Nekmahmud & Fekete-Farkas, 2020) and to meet the growing consumer demand for eco-friendly (Kartawinata et al., 2020; Majeed et al., 2022). However, the implementation of green marketing still needs to be

improved, mainly due to the misalignment between market orientation and environmental concerns, which hampers its growth (Nekmahmud et al., 2022a). There is a pressing need for a more committed approach to green marketing to close this gap by developing marketing strategies that prioritize environmental considerations (Papadas et al., 2017). Additionally, such efforts should shift consumer attitudes toward being more environmentally conscious (White et al., 2019), thereby more effectively fostering the intention to purchase eco-friendly products.

A deep understanding of how green marketing, as an environmentally-focused marketing approach, influences consumer attitudes (Safari et al., 2018) and impacts purchasing decisions is crucial (Al Mamun et al., 2023). Green marketing is becoming increasingly relevant as consumer awareness of environmental issues grows (Kautish et al., 2019), driving positive shifts in consumer attitudes toward eco-friendly products and encouraging companies to integrate environmental considerations into their marketing strategies

The change in attitude toward purchasing green products is influenced by environmental concern, which is a strong attitude toward maintaining environmental sustainability (Ogiemwonyi et al., 2023). To understand the acceptance of green movements in a country, it is essential to investigate consumer views on environmental issues and how they are reflected in purchasing eco-friendly products (Zhuang et al., 2021). In addition to knowledge about green brands, environmental attitudes also impact the intention to purchase green products (Ryantari & Giantari, 2020). These attitudes reflect an individual's likes or dislikes toward an object and can help them realize their desire to maintain environmental sustainability (Indriani et al., 2019; Putri et al., 2021; Ryantari & Giantari, 2020).

Although the concept of green marketing has been extensively studied (Dangelico & Vocalelli, 2017; Olson, 2022; Lievano Pulido & Ramon-Jeronimo, 2023), there remains a gap between market orientation and environmental aspects. This misalignment indicates limitations in understanding and implementing effective green marketing strategies. This gap necessitates further research to explore how green attitudes (Coskun, 2017) can better integrate market orientation with environmental initiatives, thereby making green marketing strategies more effective in influencing consumer purchase decisions.

Extensive research on eco-friendly products has been conducted across various countries (Arseculeratne & Yazdanifard, 2013; Jain & Kaur, 2004; Kardos et al., 2019; Nekmahmud et al., 2022a; Prieto-Sandoval et al., 2022; Zhang & Berhe, 2022). However, research focusing on green marketing for fast food products among urban communities in East Java still needs to be made available. East Java was chosen due to this region's significant market share of fast-food

restaurants. This study aims to enhance the understanding of the Theory of Planned Behaviour (Lievano Pulido & Ramon-Jeronimo, 2023) by examining the orientation of consumers toward eco-friendly products through positive green attitudes, particularly in developing countries. Furthermore, this research seeks to determine whether green marketing strategies can influence consumer attitudes toward eco-friendly products and whether positive attitudes can be decisive factors in consumers' intentions to purchase fast food products.

This article discusses the increasing consumer awareness of environmental issues that have altered their purchasing intention. The main focus is on the emergence of the green marketing concept and the importance of environmental awareness in consumer purchasing decisions, supported by the literature on green marketing, green attitude, and green purchase intention. The methodology section details the approach used to measure the effects of green marketing on consumers' attitudes and purchase intentions. The discussion explores the role of positive environmental attitudes in complementing the effects of green marketing on consumers' intentions to purchase environmentally friendly products. The conclusion emphasizes the study's main findings and suggests further research on implementing more effective green marketing strategies in various market contexts, especially in developing countries.

2. Literature review

2.1. Green marketing

Marketing is the activities, institutions, and processes involved in creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society (American Marketing Association [AMA], 2024). This definition encompasses various aspects of marketing, including product development, pricing, promotion, distribution, and ongoing management of customer relationships. Environmental-friendly marketing is increasingly growing with society's rising awareness of environmental issues. This leads to demands from the public for responsibility in conducting business activities and economic endeavors (Krisdayanti & Widodo, 2022; Prieto-Sandoval et al., 2022). The American Marketing Association describes green marketing as the sale of products that take an environmentally focused approach, as elaborated by Mothersbaugh et al. (2019). This includes changes in production activities, product modifications, packaging alterations, and adjustments to product promotion strategies. Environmental-friendly marketing (green marketing) encom-

passes all activities to produce goods that meet human needs and desires while minimizing negative impacts on the natural environment. Green marketing asserts that it is a process of selling products or services emphasizing environmental sustainability, such as environmentally friendly products, services, and production processes (Matin & Alauddin, 2016).

2.2. Green marketing strategy

According to Kotler and Keller (2016), marketing strategy is a series of integrated steps to achieve sustainable competitive advantage. However, marketing strategy and the marketing mix are closely interconnected (Islam, 2018). The marketing mix is an essential tool in marketing strategy to achieve company objectives, especially in creating and facilitating exchanges. Marketing strategy involves the company's internal and external factors. In contrast, the marketing mix is the fundamental concept and generic function of marketing efforts consisting of product, price, distribution, and promotion elements to drive sales. From this explanation, it can be understood that the marketing mix is the core of marketing strategy, where it becomes a central part of the marketing strategy companies use to stimulate exchanges (Amofah et al., 2015; Eneizan, 2020).

The marketing mix combines strategies used in marketing activities to achieve optimal results. In addition, green marketing is an integral part of the overall corporate strategy because it involves the application of a conventional marketing mix. In this context, there are four elements of the marketing mix applied in green marketing (Dangelico & Vocalelli, 2017; Jackson & Ahuja, 2016; Kaur et al., 2022), namely:

Price is a crucial aspect of the marketing mix. Consumers tend to pay more if they perceive the product has added value or higher quality. In the context of green products, green prices often require consumers to pay more as compensation for products produced by companies with high quality and environmentally friendly characteristics. In addition, green products – a product can be considered green if its production phase considers environmental factors (eco-friendly) and it has minimal environmental impact during use (Arseculeratne & Yazdanifard, 2013). Green products aim to reduce energy consumption, protect and conserve existing resources, and reduce the use of toxic substances, pollution, and generated waste (Majali et al., 2022; Nekmahmud et al., 2022a).

Green place refers to determining access to reduce environmental damage (Arseculeratne & Yazdanifard, 2013). In this context, it refers to physical distribution, all business activities involving storing and transporting products while

maintaining the company's environmental attention and responsibility (Eneizan, 2020). As mentioned by Arseculeratne and Yazdanifard (2013), green promotion states that green marketing has become a crucial element in business marketing strategies. The green marketing approach focuses on conveying environmental messages to consumers through various promotional methods, including direct marketing, public relations, and advertising. Companies are often willing to allocate additional funds for promotions focusing on environmental issues to strengthen their image as environmentally conscious in the eyes of consumers (Eneizan, 2020; Islam, 2018).

Environmental-friendly marketing strategies will change consumer attitudes toward environmentally friendly products as influenced by advertising and environmental awareness (Maharani et al., 2023). This indicates that environmentally friendly customer values positively impact attitudes toward environmentally friendly products (Liao et al., 2020). Additionally, environmental values and customer attitudes toward eco-friendly products positively influence the intention to purchase environmentally friendly items (Kaur et al., 2022).

A prior study noted that green marketing has a robust link with purchase intention, indicating that selling environmentally friendly products takes a better environmental marketing approach, thereby increasing customers' attitudes and willingness to buy environmentally friendly products (Juliantari et al., 2019). This shows that the green marketing price index variable positively affects consumers' interest in purchasing environmentally friendly products, and there is a significant relationship between them (Krisdayanti & Widodo, 2022). This is because the product's price is affordable, the product is easily accessible, and information is readily available in various media, such as print and online. Kentucky Fried Chicken (KFC) is an example of a brand that involves green action. KFC involves paper materials from companies that damage the environment, stating that KFC cares about the environment. In addition, it has a good reputation in environmental protection and a good reputation network reputation, widely spread consumer purchase intentions increase. Similarly, a prior scholar underlined that environmentally friendly products, green places, and environmentally friendly promotion strategies can promote green purchase intentions (Kaur et al., 2022). Thus, the hypotheses are provided as follows.

H1: Green marketing has a positive effect on green attitude.
H2: Green marketing has a positive effect on green purchase intention.

2.3. Green attitude

Attitudes are based on evaluative feelings about what is beneficial or harmful, related to specific objects, things, actions, abstract concepts, and individuals' life experiences. As a result, attitudes can be observed in individuals' beliefs, feelings, and behaviors (Ajzen, 2020). Research on green attitudes uses various interchangeable terms such as environmental attitudes, ecological attitudes, environmentally friendly attitudes, and sustainable attitudes toward the environment, all of which conceptualize individuals' evaluative judgments about the environment. In terms of "green" and "environment," they are used interchangeably, and green attitudes are explained in two contexts: (1) attitudes toward the environment and (2) attitudes toward pro-environmental behaviors (Alam et al., 2023; Coskun, 2017; Rahmawati & Setyawati, 2023).

Positive attitudes toward environmentally friendly products are essential in influencing consumers' attitudes toward purchasing products that contribute to environmental sustainability (Nekmahmud et al., 2022a). This upbeat, environmentally friendly attitude includes trusting and evaluating nutritious food products (Lazaroiu et al., 2019). An environmentally friendly attitude indicates that consumer behavior positively impacts the intention to purchase environmentally friendly clothing (Liao et al., 2020) through direct and indirect relationships with consumer involvement (Zaremohzzabieh et al., 2021). The following hypothesis is presented below.
H3: Green attitude has a positive effect on green purchase intention.

2.4. Green purchase intention

Theory of Planned Behavior (TPB), developed by Ajzen (1991), is the psychological model used to predict and understand human behavior. The theory posits that the intention to perform a particular action is the primary predictor of that action, influenced by three key components: Attitude toward the behavior, subjective norms, and perceived behavioral control (Ajzen & Schmidt, 2020). TPB can be applied to explain how green marketing strategies can affect consumers' intentions and behaviors toward environmentally friendly products (Hoang Yen & Hoang, 2023; Liao et al., 2020).

The decision to purchase or not is part of the behavior inherent in individual consumers, known as behavior (Ajzen & Schmidt, 2020), which refers to observable and measurable physical actions by others. Consumers often face various product choices that require them to consider before purchasing (Peña--García et al., 2020). Kotler and Keller (2016) explain that purchase is the stage where consumers make a purchase; thus, the purchasing decision is a problem-

-solving process to fulfill needs and desires with steps such as recognition, information search, alternative evaluation, purchase decision, and post-purchase action, and the purchasing decision as strong consumer belief in the correctness of the product choices they buy (Ahmad et al., 2023; Al Mamun et al., 2023).

Environmental-friendly marketing strategies are intended to impact changing consumer attitudes in choosing products, including options to compare product brands (Majerova et al., 2020). With such attitude changes, environmentally friendly marketing will drive consumer interest in environmentally friendly products (Liao et al., 2020). Thus, changes in consumer attitudes will undoubtedly contribute to the fact that environmentally friendly marketing will stimulate consumer purchasing interest (Juliantari et al., 2019), making them increasingly interested in purchasing environmentally friendly products (Pandey & Yadav, 2023). Thus, the last hypothesis is provided as follows.

H4: Green marketing positively affects green purchase intention through a green attitude.

From the literature review conducted using green marketing and planned behavior theories, the following conceptual framework of the study can be constructed, as shown in Figure 1.

Figure 1. Framework draft study
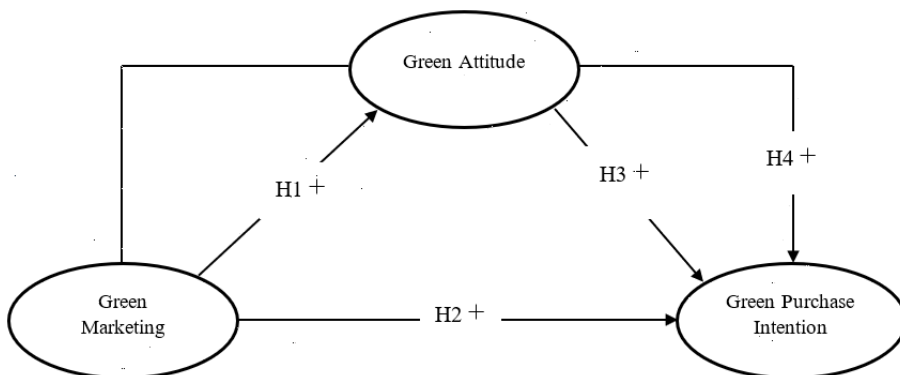
Source: Authors' own elaboration.

3. Research methodology

A survey design offers a numerical representation of patterns, beliefs, and views within a particular population or examines predictive relationships between factors within a population by examining a subset of that population (Creswell & Creswell, 2018; Rana et al., 2020).

The population size could not be determined, specifically, the consumers who purchase or are consuming fast food at Kentucky Fried Chicken (KFC) restaurants in East Java. This study employed a non-probability sampling technique (Creswell & Creswell, 2018; Hulland et al., 2018). KFC was chosen due to its consistent operational standards, extensive market share, and commitment to environmentally friendly marketing. This study distributed the data to the most prominent KFC restaurants in Surabaya, Malang, and Sidoarjo.

The sample size determination technique will use power analysis to determine the minimum sample size required for adequate statistical accuracy. Based on recommendations (Benitez et al., 2020; Faul et al., 2007; Hair et al., 2022; Roy, 2023), we selected a medium effect size ($f^2 = 0.15$), a statistical power of 0.95, and significance level of 0.05 (Hong et al., 2024). Calculations using G*Power indicate that a minimum sample size of 166 respondents is required as the minimum threshold. However, in this study, the questionnaire was distributed manually with the assistance of survey officers targeting consumers in the designated restaurants. After collecting data from 500 respondents, the data was deemed sufficient for the S.E.M. method and the continuation of the research (Hair et al., 2020).

This research was conducted in 2023 from January to June. Primary data sources were obtained by distributing questionnaires to consumers who purchase or consume fast-food products. A Likert scale was used with the following criteria: "5 strongly agree," "4 agree," "3 neutral," "2 disagree," and "1 strongly disagree." (Bougie & Sekaran, 2020; Hair et al., 2020; Saunders et al., 2019). The constructs of green marketing, green attitude, and green purchase intention were measured using several questionnaire items, as outlined in Table 1.

Table 1. Construct item

Constructs	Code	Item
1	*2*	*3*
Green marketing (Dangelico & Vocalelli, 2017; Kaur et al., 2022)	GM1	Green fast food product prices should be reasonable to motivate consumers to buy (Kaur et al., 2022)
	GM2	The products I eat must not harm the environment (Kaur et al., 2022)
	GM3	Green fast-food products are available nearby (Kaur et al., 2022)
	GM4	Environmental advertisements facilitate consumers in making the right purchasing decisions (Kaur et al., 2022)
	GMG	I consume fast food that is committed to environmental sustainability
Green attitude (Pandey & Yadav, 2023; Sun & Wang, 2020; Wang et al., 2021)	GA1	I think it is wise to purchase green fast food to protect the environment (Sun & Wang, 2020)
	GA2	There is a significant difference between consuming environmentally friendly fast food and regular fast food (Wang et al, 2021)

Table 1 cont.

1	2	3
	GA3	I think consuming environmentally friendly fast food is very meaningful for environmental protection (Wang et al., 2021)
	GA4	I think consuming environmentally friendly fast food is closely related to my life (Wang et al., 2021)
Green purchase intention (Nekmahmud et al., 2022b; Sun & Wang, 2020)	GPI1	I plan to purchase environmentally friendly fast food in the future (Nekmahmud et al., 2022b; Sun & Wang, 2020)
	GPI2	I am willing to purchase environmentally friendly fast food (Nekmahmud et al., 2022b; Sun & Wang, 2020)
	GPI3	I intend to pay more for environmentally friendly fast food (Sun & Wang, 2020)
	GPI4	From now on, I will recommend environmentally friendly fast food to others (Sun & Wang, 2020)

Source: Authors' own elaboration.

The data analysis technique used partial least squares structural equation modeling (PLS-SEM). This method has many advantages, such as suitability for prediction (Khan et al., 2019), avoidance of invalid solutions and factor uncertainty, and applicability for theory development (Fornell & Bookstein, 1982; Hair et al., 2019a; Waris & Hameed, 2020). Therefore, in this study, we applied SEM using Smart-PLS 4. PLS-SEM, in particular, is considered the best choice due to its effectiveness in evaluating complex frameworks with moderation effects (Hair et al., 2022).

4. Research findings

4.1. Description analysis respondent

The demographics of the respondents can be seen in Table 2 with the following description: out of 500 respondents from urban communities in East Java, 160 are aged 36-45. The characteristics of young respondents are more pronounced because, at this age, they are actively working and have more activities outside the home. Among them, 352 are women. The higher number of female respondents is attributed to women's tendencies towards shopping. In addition, women have more responsibility for food needs for their families and their most dominant education level is high school with, 214 respondents. This reflects the predominant education levels of the population in developing countries. Moreover, 153 respondents did not specify their occupation.

Table 2. Demographics of respondents

Variable	Information	Frequency (n:500)	Percent (%)
Age	16-25 years old	131	26.2
	26-35 years old	135	27.0
	36-45 years old	160	32.0
	46-55 years old	50	10.0
	56-65 years old	19	3.8
	66-75 years old	5	1.0
Sex	Men	141	28.2
	Women	352	70.4
	Other	7	1.4
Education	Elementary School	112	22.4
	Junior High School	106	21.2
	Senior High School	214	42.8
	Diploma	23	4.6
	Bachelor	28	5,6
	Masters	17	3,4
Jobs	Government employees	9	1.8
	Army/Police	2	0.4
	Private employees	89	17.8
	Self-employed	124	24.8
	Farmer	123	24.6
	Other	153	30.6

Source: Authors' own elaboration.

4.2. Normality test

The kurtosis-skewness test was used to evaluate the data distribution and determine whether the distribution of residuals can be considered normal. For categorical data, the distribution is considered normal if the kurtosis values are within the range of −7 to 7 (Curran et al., 1996; Reinartz et al., 2002; Ringle et al., 2014) and the skewness values are within the range of −2 to 2 (Hair et al., 2022, p. 66). Based on the results of the data normality test, as shown in Table 3, kurtosis-skewness, it can be concluded that the data in these categories have a distribution that can be considered normal.

Table 3. Descriptive and normality test

Variables	Items	Descriptive			Normality	
		obs min	obs max	mean	kurtosis	skewness
Green marketing	GM1	1	5	3.738	2.314	-1.040
	GM2	1	5	3.756	1.605	-0.875
	GM3	1	5	3.676	0.812	-0.746
	GM4	1	5	3.848	0.957	-0.719
	GMG	2	5	3.798	1.269	-0.730
Green attitude	GA1	1	5	3.568	1.235	-0.910
	GA2	1	5	3.576	1.891	-1.077
	GA3	1	5	3.614	1.352	-0.848
	GA4	1	5	3.566	1.143	-0.853
Green purchase intention	GPI1	1	5	3.512	0.714	-0.703
	GPI2	1	5	3.394	0.150	-0.611
	GPI3	1	5	3.554	0.490	-0.458
	GPI4	1	5	3.592	0.119	-0.506

Source: Authors' own elaboration.

4.3. Common method bias test

The purpose of testing for common method bias (CMB) is to identify and mitigate potential errors in measurement or test data (Podsakoff et al., 2024). One source of measurement error is methodological differences. To determine whether these methodological differences are significant, the results of the CMB test using Harman's single-factor test yielded a single-factor value of 48.912% of the total variance, which is less than 50% (Fuller et al., 2016; Hong et al., 2024; Podsakoff et al., 2012), this indicates that there are no issues with CMB. Full collinearity testing techniques can be used. CMB, measured using the Variance Inflation Factor (VIF), indicates that if the inner model VIF values in Table 4 are ≤ 5, there is no multicollinearity among the latent variables (Hair et al., 2022; Hong et al., 2024), or the data is accessible from standard method bias (Kock, 2017). This means the questionnaire items among the latent variables do not have strong correlations; thus, the questionnaire data are suitable for further statistical testing.

Table 4. Collinearity statistics (VIF) inner model list

Correlation	VIF
Green attitude -> Green purchase intention	1,589
Green marketing -> Green attitude	1,000
Green marketing -> Green purchases intention	1,589

Source: Authors' own elaboration.

4.4. Reflective and formative validity tests

The convergent validity results to measure an indicator's validity as an indicator variable, shown in Table 5, indicate that all loading factor values are > 0.7, and the Average Variance Extracted (AVE) values are > 0.5. This indicates that the instrument items are valid (Haryono, 2017; Nawanir et al., 2018). To accurately assess internal consistency, Cronbach's alpha (CA), Composite Reliability (rho-c), and Dijkstra−Henseler's Rho (rho-a) values were examined (Dijkstra & Henseler, 2015; Hair et al., 2014; Kuncoro & Suriani, 2018). The test results show that all elements' CA, rho-a, and rho-c values are above 0.7, indicating strong internal consistency within the framework (Hair et al., 2017).

Table 5. Reflective validity test

Constructs	Reflective item	Loading factor	CA	rho-a	rho-c	AVE
Green attitude	GA1	0.829	0.860	0.861	0.905	0.706
	GA2	0.884				
	GA3	0.849				
	GA4	0.796				
Green purchase intention	GPI1	0.857	0.825	0.829	0.883	0.655
	GPI2	0.902				
	GPI3	0.880				
	GPI4	0.829				

Source: Authors' own elaboration.

Green marketing, as a concept defined by formative indicators shown in Table 6, has successfully met the requirements of the model (Gholami et al., 2013; Hair et al., 2022). It achieved a convergent validity value of 0.797, exceeding the threshold of 0.70. Furthermore, all outer weights of the indicators were significant for their respective construct, and there was no sign of multicollinearity, as the VIF values for each indicator were below 5 (Hair et al., 2022). Consequently, the green marketing construct is considered suitable for incorporation into the subsequent model.

Table 6. Formative validity test

Constructs	Formative item	Loading factor	Outer weights	P-value	V.I.F.	Convergent validity
Green marketing	GM1	0.776	0.238	0.000	1.880	0.797
	GM2	0.763	0.218	0.000	1.845	
	GM3	0.836	0.368	0.000	1.732	
	GM4	0.839	0.406	0.000	1.638	

Source: Authors' own elaboration.

4.5. Discriminant validity test

The comparison results of the average hetero-trait-hetero-method correlations and the average monotrait-heteromethod correlations (HTMT) in Table 7 show a statistical ratio ≤ 0.85 (Dijkstra & Henseler, 2015; Hair et al., 2017), indicating that the variables are conceptually dissimilar (Nawanir et al, 2018; Rasoolimanesh, 2022; Sarstedt et al., 2023). Additionally, the Fornell−Larcker criterion or the square root of the average variance extracted (AVE) of a latent variable is higher than the correlation between that latent variable and all other variables > 0.50 (Chin, 2010; Fornell & Larcker, 1981; Hair et al., 2017). This means all question items among variables are unique and dissimilar, preventing multicollinearity among latent variables and avoiding biased statistical test results.

Table 7. Heterotrait hetero-method (yellow) and Fornell-Larcker (green)

Constructs	Green attitude	Green marketing	Green purchase intention
Green attitude	0.840	0.596	0.696
Green marketing	0.700	0.809	0.523
Green purchase intention	0.794	0.605	0.867

Source: Authors' own elaboration.

4.6. Model evaluation results

The PLS-SEM RMSE refers to the Root Mean Squared Error derived from the PLS-SEM Model, while the LM RMSE pertains to the Root Mean Squared Error obtained from the Linear Model. It measures the discrepancy between the values predicted by the model and the actual observed values. RMSE indicates the model's predictive accuracy, where a lower RMSE value signifies a better fit of the model to the observed data (Shmueli et al., 2019). From Table 8, by comparing the PLS-SEM RMSE with the LM RMSE, it is evident that, for the majority of indicators, the PLS-SEM RMSE is smaller than the LM RMSE across all indicators. This indicates that employing the PLS-SEM model yields a robust relationship prediction between exogenous and endogenous variables. Furthermore, examining the Q^2 predict values for each indicator from the PLS-SEM analysis reveals that Q^2 predict values above zero, indicating that the model possesses predictive solid power (Shmueli et al., 2019).

Table 8. PLSpredict

Constructs	Items	Q²predict	PLS-SEM_RMSE	LM_RMSE
Green attitude	GA1	0.221	0.774	0.775
	GA2	0.247	0.707	0.708
	GA3	0.232	0.716	0.716
	GA4	0.297	0.679	0.680
Green purchase intention	GPI1	0.171	0.794	0.797
	GPI2	0.225	0.810	0.813
	GPI3	0.239	0.644	0.645
	GPI4	0.189	0.738	0.741

Source: Authors' own elaboration.

R-square is used to measure the extent of the influence of independent variables on dependent variables. R-square values of 0.5 (strong), 0.33 (moderate), and 0.19 (weak) are commonly acknowledged (Chin, 2010; Haryono, 2017). A higher R-squared value indicates better prediction and proposes research models (Hair et al., 2022). However, f-square indicates the predictive ability of exogenous variables on endogenous variables, with assessments such as ≤ 0.02 (weak), 0.02 to 0.15 (moderate), and ≥ 0.35 (strong) (Chin, 2010; Haryono, 2017). Table 9 results indicate that green marketing has a moderate to strong influence on green purchase intention (0.370-0.503). In contrast, green marketing and green attitude have a robust predictive ability regarding green purchase intention.

Table 9. R- Square, R- Square Adjusted, and f- Square

| Constructs	R- square	R- square adjusted	f- Square
Green attitude	0.371	0.370	
Green purchase intention	0.505	0.503	
Green attitude -> Green purchase intention			0.439
Green marketing -> Green attitude			0.589
Green marketing -> Green purchases intention			0.040

Source: Authors' own elaboration.

4.7. Structural model

Figure 2 shows the construct of green marketing is formed by four formative indicators (green price, green product, green place, and green promotion) (Dangelico & Vocalelli, 2017; Jackson & Ahuja, 2016; Kaur et al., 2022), characterized by arrows pointing toward the construct (Jarvis et al., 2003). The formative indicators must have low inter-correlations (Hair et al., 2022; Hulland, 1999). The analysis shows that green promotion contributes the most to green

marketing, while green price contributes the least. The construct of green attitude, measured by four reflective indicators, all reflect green attitude well, as the t-value of all indicators is > 1.645. The construct of green purchase intention, measured by four reflective indicators, all reflect GPI well, with t-values > 1.645.

Path coefficients indicate the extent of influence of an exogenous variable on an endogenous variable (Byrne, 2010; Dash & Paul, 2021; Hair et al., 2019b). The results of Figure 2 show that green marketing has a coefficient of 0.609 toward attitude, the attitude has a coefficient of 0.588 toward green purchase intention, and green marketing toward green purchase intention is 0.178. The most significant coefficient is the influence of green marketing on green attitudes, explaining that effective green marketing strategies will change consumer attitudes toward environmentally friendly products. From this result, green marketing can be effective if this green marketing strategy changes consumer attitudes, ultimately increasing consumers' purchase intentions toward environmentally friendly products. Additionally, a green attitude plays a significant role in complementing the influence of green marketing on green purchase intention and enhancing consumers' purchase intentions toward environmentally friendly products.

Figure 2. PLS bootstrapping
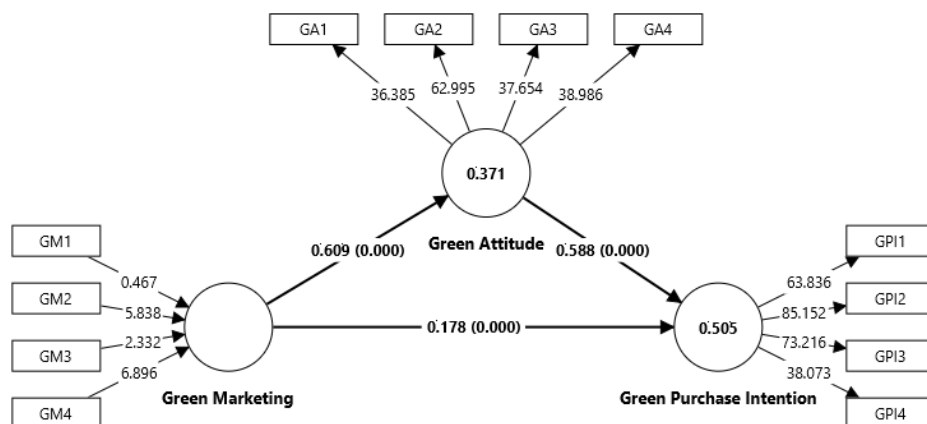
Source: Authors' own elaboration.

4.8. Hypothesis test

Hypothesis testing is conducted to measure whether the relationship between exogenous variables is accepted or rejected by its hypothesis. A hypothesis is considered significant or accepted. This is evident from the t-value

being ≥ the t-table value (1.645) and the p-value being ≤ 0.05 (Hair et al., 2022). From the results of hypothesis testing in Table 10 and Figure 2, considering the t-values and p-values, it can be elaborated as follows:

1. Green marketing significantly influences green attitude, indicated by the t-value of 16.788, the p-value of 0.000 < 0.05, and the confidence interval does not cross zero.
2. Green marketing significantly influences green purchase intention, indicated by the t-value of 4.142, the p-value of 0.000 < 0.05, and the confidence interval does not cross zero.
3. A significant positive influence of green attitude on green purchase intention is indicated by the t-value of 14.248, the p-value of 0.000 < 0.05, and the confidence interval does not cross zero.
4. A significant indirect positive influence of green marketing through green attitude on green purchase intention is indicated by the t-value of 10.716, the p-value of 0.000 < 0.05, and the confidence interval does not cross zero.

Table 10. Hypothesis testing

Path	Beta	St- dev	Biased	Confident interval		T- values	P- values
				2.5%	97.5%		
Direct effects							
GA -> GPI	0.588	0.041	−0.002	0.506	0.667	14,248	0,000
GM -> GA	0.609	0.036	0.002	0.531	0.674	16,788	0,000
GM -> GPI	0.178	0.043	0.004	0.090	0.258	4,142	0,000
Indirect effects							
GM -> GA -> GPI	0.358	0.033	−0.000	0.296	0.427	10,716	0,000

Source: Authors' own elaboration.

5. Discussion

5.1. Influence of green marketing on green attitude

The research findings indicate that green marketing positively and significantly influences green attitudes. This means that green marketing strategies such as using eco-friendly packaging, promoting environmentally friendly products, and supporting environmental conservation programs lead to higher levels of concern and willingness among individuals to act environmentally friendly. Including trust and evaluation of the benefits of nutritious products also influences a positive attitude toward environmentally friendly products (Lazaroiu et al., 2019). This aligns with the findings of (Liao et al., 2020), which demon-

strate that environmentally friendly customer values have a significant positive impact on attitudes toward environmentally friendly products.

Green marketing strategies, such as eco-friendly product design, placement, and promotion, significantly influence the intention to purchase environmentally friendly products. This supports the research by (Kaur et al., 2022), which explains that environmental attitudes also significantly mediate the intention to purchase environmentally friendly products.

5.2. Influence of green marketing on green purchase intention

The research results show that green marketing positively and significantly impacts green purchase intention. Consistent with the findings of (Juliantari et al., 2019), green marketing also has a positive and significant impact on purchase intention (Rosyana & Zulfitri, 2022). This means that companies selling environmentally friendly products adopt better environmental marketing approaches, increasing customers' willingness to purchase environmentally friendly products. These findings also support the research (Krisdayanti & Widodo, 2022), which demonstrates that the green marketing price index variable positively influences consumer interest in purchasing environmentally friendly products, and there is a significant relationship. This is because the product's price is affordable, it is easily accessible, information is readily available through various media such as print and online media, it has a good reputation in environmental protection, and its reputation is widely spread across networks, leading to increased consumer purchase intentions.

Similarly, green products, green locations, and green promotion strategies significantly impact green purchase intentions (Kaur et al., 2022). However, advertising promotion does not affect consumers' intention to consume environmentally friendly products (Fahlepi & Widodo, 2022).

5.3. Influence of green attitude on green purchase intention

The research results indicate that consumers' attitudes toward environmentally friendly products can influence their intention to purchase them. A positive attitude toward environmentally friendly products is crucial in influencing consumers' attitudes toward purchasing products (Hoang Yen & Hoang, 2023) and contributes to environmental sustainability. This aligns with the findings (Lazaroiu et al., 2019). The trust and evaluation of nutritious food products in-

fluence a positive attitude toward environmentally friendly products (Liao et al., 2020), which also demonstrates that consumer behavior positively impacts the intention to purchase environmentally friendly clothing through both direct and indirect relationships with consumer involvement in environmentally friendly products (Zaremohzzabieh et al., 2021). These results contrast with research findings that indicate that green marketing insignificantly influences the intention to purchase environmentally friendly products (Vannia et al., 2022)**.**

5.4. Influence of green marketing through green attitude on green purchase intention

The research findings illustrate that consumers' attitudes toward environmentally friendly products can complement environmentally friendly marketing strategies in influencing consumers' intention to purchase such products. Environmental marketing strategies are expected to impact changing consumer attitudes in choosing these products, as evidenced by the study conducted by (Liao et al., 2020). With these attitude changes, environmentally friendly marketing will undoubtedly stimulate consumers' interest in environmentally friendly products, supporting their findings (Juliantari et al., 2019). Thus, changes in consumer attitudes will undoubtedly contribute to the fact that with environmentally friendly marketing, consumer purchase interest will increasingly lean toward purchasing environmentally friendly products, consistent with their research (Pandey & Yadav, 2023).

6. Conclusions

This study demonstrates that green marketing strategies positively and significantly impact green attitudes and purchase intentions. The research findings reveal that elements of the green marketing mix, such as eco-friendly product packaging, sustainability-supporting pricing, environmentally minimizing product placement, and conservation-focused promotion, significantly enhance consumer awareness and intention to act in an environmentally friendly manner. Furthermore, consumers' positive attitudes toward eco-friendly products significantly mediate the influence of green marketing strategies on purchase intentions.

This study contributes significantly to developing green marketing theory by revealing key findings that deepen the understanding of how green marketing strategies influence consumer attitudes and purchase intentions toward environ-

mentally friendly products. Furthermore, this study extends the understanding of how pro-environmental attitudes shaped by green marketing can directly influence consumers' purchase intentions. The research findings also have practical implications. Companies can utilize these findings to develop more effective green marketing strategies targeting consumers' green attitudes and orientations toward environmental preservation. Governments can implement policies and programs encouraging green business practices and raising consumer awareness about environmental issues. Non-profit organizations can collaborate with companies and governments to educate consumers about the importance of sustainability and encourage them to make environmentally friendly choices.

As with other studies, this study is limited to the urban population of East Java, which is restricted in terms of both size and demographic characteristics and focuses solely on a single fast-food restaurant. Additionally, the research only examines the influence of green marketing, with four formative indicators (green price, green product, green place, and green promotion), on green purchase intention through green attitude. Further research is needed to gain a deeper understanding of how green marketing influences consumer green attitudes. This may involve more specific studies on which types of green marketing strategies are most effective in influencing consumer attitudes toward the environment. Additionally, future research could investigate the moderating factors in the relationship between green marketing and green purchase intention. This could include demographic factors, product types, or different market contexts. Lastly, future research can continue to expand our understanding of the role and effects of green marketing in promoting environmentally friendly and sustainable consumer behavior.

Disclosure statement

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