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## Development of a Model for the Intention to Purchase Environmentally Friendly Products Through Green Brand Image Mediation: A Case Study of Generation Z in Indonesia

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### Abstract

This study investigates the influence of green advertising and green product innovation on green brand image and their impact on green purchase intention among Generation Z consumers in Indonesia. Grounded in the Theory of Planned Behavior, the study extends green consumption research by positioning green brand image as a mediating mechanism that connects sustainability-oriented marketing strategies with consumers' pro-environmental behavioural intentions. Prior TPB-based studies largely emphasize attitudinal and normative determinants, while limited attention has been given to marketing-driven signals, such as green advertising and product innovation in shaping behavioural intention through brand perception, particularly among Generation Z in emerging economies. Using a survey of 250 Generation Z respondents analysed with Structural Equation Modelling, the results show that green advertising and green product innovation significantly strengthen green brand image, which subsequently increases green purchase intention. Green brand image also partially mediates these relationships. The findings refine TPB-based green consumption models by highlighting the strategic role of brand perception in translating sustainability marketing efforts into green purchasing behaviour and provide implications for firms in designing credible green communication and innovation strategies.

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## INTRODUCTION

Contemporary discourse on sustainable consumption has intensified significantly over the past decade, driven by growing global awareness of environmental degradation, climate change, and resource depletion. These environmental challenges have fundamentally reshaped expectations regarding how firms produce, communicate, and deliver value to consumers. Increasingly, consumers expect companies not only to provide functional benefits but also to demonstrate responsible environmental behaviour in their business practices. Within this evolving context, environmentally friendly products have emerged as a strategic response that aligns consumer preferences with broader corporate sustainability commitments (Hasudungan & Saragih, 2024). The rise of sustainable consumption reflects a broader transformation in market dynamics, where environmental values increasingly influence purchasing decisions and corporate legitimacy. Firms therefore face mounting pressure to integrate sustainability considerations into their marketing strategies and product development processes to remain competitive and socially relevant in contemporary markets (Zaremohzzabieh et al., 2021; Hasudungan & Saragih, 2024).

In response to these developments, many companies have begun incorporating environmental themes into their marketing communication strategies. One of the most prominent approaches is the use of green advertising, which communicates environmental attributes of products or promotes corporate commitment to sustainability. Green advertising is widely considered a key instrument for shaping consumer perceptions and encouraging environmentally responsible purchasing behaviour (Braga et al., 2024; Freudenreich & Penz, 2024). Through advertising narratives that emphasise environmental responsibility, eco-friendly materials, or sustainable production processes, firms attempt to signal their commitment to environmental stewardship and

differentiate themselves from competitors. Such communication strategies are expected to influence consumer attitudes and perceptions toward green products and ultimately increase their willingness to purchase environmentally friendly alternatives (Li, 2025; Zhao et al., 2024).

The strategic role of green advertising has been widely recognised in the marketing literature. Green advertising campaigns often incorporate environmental imagery, eco-labels, or sustainability claims designed to enhance consumer awareness and promote pro-environmental consumption patterns (Bodkin et al., 2015; Schmuck et al., 2018). These communication efforts aim to position environmentally friendly products as desirable and socially responsible consumption choices. In this sense, green advertising functions not only as an informational tool but also as a symbolic mechanism that connects environmental values with brand identity and consumer self-concept. When implemented effectively, green advertising may strengthen consumers' emotional and cognitive associations with environmental responsibility, thereby influencing their evaluation of brands and products (Lim et al., 2020; Nagar, 2015).

Despite its growing prevalence, the effectiveness of green advertising remains contested. A major challenge arises from increasing consumer scepticism regarding environmental claims made by companies. Consumers are becoming more critical of green marketing messages, particularly in contexts where companies exaggerate or misrepresent their environmental performance. This phenomenon, commonly referred to as greenwashing, has contributed to declining consumer trust in green advertising and eco-labels (Tu et al., 2024). When consumers perceive environmental claims as misleading or exaggerated, they may question the authenticity of corporate sustainability initiatives and become reluctant to purchase green products. Consequently, although green advertising is designed to promote environmentally responsible consumption, its effectiveness may

be undermined by credibility concerns and sceptical consumer attitudes (Carrión-Bósquez et al., 2024; Martanto et al., 2024).

The presence of consumer scepticism highlights a critical limitation of communication-based green marketing strategies. While advertising can shape perceptions and attitudes, it may not be sufficient to convince consumers if it is not supported by tangible evidence of environmental commitment. In this regard, firms must complement their communication strategies with substantive innovations that genuinely reduce environmental impact. Green product innovation therefore plays a crucial role in reinforcing the credibility of sustainability claims. Green innovation refers to the development of products, technologies, or processes that reduce environmental harm and promote resource efficiency throughout the production lifecycle (Rupasinghe et al., 2024). Such innovations may include the use of renewable materials, energy-efficient production methods, recyclable packaging, or environmentally friendly product designs that minimise ecological footprints (Manyati et al., 2024).

From a strategic perspective, green product innovation represents more than a technical adjustment; it constitutes an important organisational capability that enables firms to integrate sustainability into their core business models. Companies that successfully implement green innovation strategies can improve operational efficiency, reduce waste, and enhance resource utilisation within their production systems (Farida & Setiawan, 2024; Yang & Singhdong, 2024). Moreover, green innovation is increasingly viewed as a driver of sustainable competitive advantage, allowing firms to differentiate themselves in environmentally conscious markets. Prior studies have demonstrated that organisations investing in green innovation are better positioned to enhance organisational performance, strengthen market competitiveness, and build stronger relationships with environmentally conscious consumers (Abadzhiev et al., 2022; Padilla-

Lozano & Collazzo, 2022).

Empirical evidence also suggests that green innovation contributes positively to corporate financial outcomes and long-term strategic positioning. Firms engaging in environmentally oriented innovation can benefit from improved financial performance, reduced regulatory risks, and enhanced corporate reputation (Alkebsee et al., 2023; Padilla-Lozano et al., 2024). Furthermore, green innovation can stimulate new market opportunities by enabling firms to develop environmentally differentiated products that appeal to sustainability-oriented consumers (Baquero, 2024; Wu et al., 2024). By integrating sustainability into product design and production processes, companies can simultaneously address environmental concerns and create economic value.

Beyond organisational outcomes, green innovation also has important implications for consumer behaviour. Environmentally innovative products often enhance consumers' perceived value, satisfaction, and trust in brands that demonstrate genuine commitment to sustainability. As a result, green innovation can significantly influence consumer purchase intentions and decision-making processes (Chahal et al., 2014; Rodrigo & Mendis, 2023). Previous research indicates that consumers are more likely to support brands that integrate environmental responsibility into their products and services, particularly when these initiatives are perceived as authentic and credible (Laheri et al., 2024; Zhao et al., 2024). Consequently, green innovation and green marketing strategies jointly contribute to shaping consumer perceptions and behavioural responses toward environmentally friendly products (Troudi & Bouyoucef, 2020; Rukhsar et al., 2025).

One important construct that bridges corporate sustainability initiatives and consumer behavioural responses is green brand image. Green brand image refers to consumers' perceptions of a brand's environmental commitment and its association with environmentally responsible practices. A strong green brand image signals authenticity and credibility, thereby enhancing consumer trust in

sustainability claims made by companies (Lin et al., 2017). In markets characterised by increasing environmental awareness, green brand image has become a critical intangible asset that influences consumer attitudes, brand loyalty, and purchase intentions (Mohd Suki, 2016; Yao et al., 2021).

However, maintaining a positive green brand image is not without challenges. In recent years, increasing incidents of greenwashing have created scepticism among consumers regarding the authenticity of corporate environmental claims. When firms fail to deliver genuine environmental benefits, consumers may perceive their sustainability initiatives as superficial marketing tactics rather than meaningful environmental commitments (Tu et al., 2024). Such perceptions can damage brand credibility and weaken consumer trust, ultimately undermining the effectiveness of green marketing strategies. As a result, firms must ensure that their environmental communication is supported by genuine innovation and consistent organisational practices.

Organisational behaviour also plays a crucial role in shaping green brand image. Employee actions and organisational culture can significantly influence how sustainability initiatives are implemented and perceived by stakeholders. If employees fail to adhere to environmentally responsible practices, organisational green strategies may lose credibility and negatively affect brand perceptions (Kong & Zhang, 2014). For this reason, companies must invest in sustainability training and awareness programs that encourage employees to adopt environmentally responsible behaviours. Strengthening internal environmental commitment can help organisations maintain consistency between their sustainability claims and operational practices, thereby reinforcing a credible green brand image.

Although previous studies have examined the relationships among green marketing, green innovation, and consumer behaviour, several theoretical and empirical gaps remain. First, much of the existing research focuses on

individual psychological determinants of green purchase intention, such as attitudes, subjective norms, and perceived behavioural control within the framework of the Theory of Planned Behaviour (TPB) (Lacasse et al., 2024; Laheri et al., 2024). While these studies provide valuable insights into consumer decision-making processes, they often overlook the role of marketing-driven signals—such as green advertising and product innovation—in shaping behavioural intentions through brand-related perceptions. Consequently, the mediating mechanisms linking corporate green strategies to consumer behavioural outcomes remain insufficiently explored.

Second, although green brand image has been identified as an important driver of consumer behaviour, empirical studies examining its mediating role remain limited and fragmented. Some studies suggest that green brand image may serve as a critical cognitive mechanism through which sustainability initiatives influence consumer responses (Majeed et al., 2022). However, empirical evidence regarding how green advertising and green product innovation jointly shape green purchase intention through brand perception remains relatively scarce. Addressing this gap is important because understanding the mediating role of green brand image can provide deeper insight into how firms translate sustainability strategies into favourable consumer behavioural outcomes.

Third, the existing literature has largely focused on general consumer populations, with relatively limited attention given to specific generational cohorts. This limitation is particularly relevant in the context of Generation Z consumers, who represent one of the most influential and environmentally conscious consumer segments in contemporary markets. Generation Z is widely characterised by strong environmental awareness, digital connectivity, and greater sensitivity to corporate sustainability practices (Macheka et al., 2024). As a result, this generation is expected to play a critical role in shaping future consumption patterns and sustainability-oriented markets. However, empirical research examining green

purchase intentions among Generation Z in emerging economies remains limited.

The context of emerging economies such as Indonesia further reinforces the importance of investigating green consumption behaviour. Rapid economic growth, increasing environmental challenges, and evolving consumer awareness create a unique environment in which sustainability-oriented marketing strategies are becoming increasingly relevant. At the same time, firms operating in emerging markets face practical challenges in communicating credible sustainability initiatives while maintaining competitive performance. Understanding how green advertising and green product innovation influence consumer behaviour in such contexts therefore provides valuable insights for both academic research and managerial practice.

Based on these considerations, this study aims to examine the influence of green advertising and green product innovation on green purchase intention through the mediating role of green brand image among Generation Z consumers in Indonesia. By integrating these constructs within the framework of the Theory of Planned Behaviour, this research seeks to extend existing green consumption models by incorporating marketing-driven mechanisms that shape behavioural intentions through brand perception. In doing so, the study contributes to the literature by addressing the limited empirical evidence regarding mediation mechanisms in green marketing research and by providing new insights into the sustainability-oriented consumption behaviour of Generation Z in emerging economies.

## **METHOD**

### **Research Design**

This study adopts a quantitative research design using a cross-sectional survey approach to examine the relationships among green advertising, green product innovation, green brand image, and green purchase intention among Generation Z consumers in Indonesia. A survey design is widely applied in consumer behaviour and marketing research because it

enables researchers to systematically capture perceptions, attitudes, and behavioural intentions from a relatively large sample within a specific period (Kasri et al., 2023; Marmaya et al., 2019). The cross-sectional nature of the design allows the study to investigate associations between constructs at a single point in time, which is appropriate for testing theoretical relationships and mediation mechanisms within behavioural intention models. However, it is important to acknowledge that cross-sectional data limit the ability to establish causal relationships; therefore, the findings should be interpreted as indicative of associative relationships rather than definitive causal effects (Zaremohzzabieh et al., 2021; Zhuang et al., 2021).

The conceptual framework of this research is grounded in the Theory of Planned Behavior, which has been widely used to explain consumer decision-making processes and behavioural intentions in various consumption contexts, including green consumption (Lacasse et al., 2024; Laheri et al., 2024). Within the TPB framework, behavioural intention is generally determined by attitudes, subjective norms, and perceived behavioural control. In this study, green advertising and green product innovation are conceptualised as external marketing stimuli that influence consumers' cognitive and attitudinal evaluations toward environmentally friendly products. These marketing signals contribute to the formation of favourable perceptions and beliefs about environmentally responsible brands, which ultimately shape purchase intentions (Li, 2025; Zhao et al., 2024). Green brand image is positioned as a mediating construct because brand-related perceptions serve as an important cognitive mechanism that translates sustainability-oriented marketing strategies into consumer behavioural responses (Majeed et al., 2022; Mohd Suki, 2016). This theoretical positioning is consistent with prior research indicating that brand image and consumer beliefs function as mediators linking marketing activities with behavioural intention within TPB-based frameworks (Patwary et al., 2022; Rukhsar et al., 2025).

### Population and Sampling

The target population of this study consists of Generation Z consumers in Indonesia, defined as individuals born approximately between 1997 and 2012, following commonly accepted generational classifications in marketing and consumer behaviour research. This generational cohort is particularly relevant because Generation Z is widely recognised as a socially conscious and environmentally aware consumer group that demonstrates strong interest in sustainable consumption practices (Macheka et al., 2024). Previous studies have also highlighted that younger consumers tend to exhibit higher sensitivity toward environmental issues and sustainability-oriented marketing strategies, making them an important segment for green product markets (Hasudungan & Saragih, 2024; Lupindo et al., 2024).

A purposive sampling technique was employed in this study to ensure that respondents met specific criteria relevant to the research objectives. The inclusion criteria required respondents to (1) belong to the Generation Z age group, (2) reside in Indonesia, and (3) have prior awareness or experience with environmentally friendly products. Purposive sampling is frequently used in behavioural and marketing research when the study focuses on specific consumer segments with particular characteristics or experiences (Amalia et al., 2020; Wibowo et al., 2022). A total of 250 respondents participated in the survey. This sample size is considered adequate for structural equation modelling (SEM) analysis, as SEM requires sufficient observations to ensure stable parameter estimation and reliable model evaluation (Kasri et al., 2023; Marmaya et al., 2019). Several methodological studies suggest that sample sizes exceeding 200 respondents are generally sufficient for SEM-based studies involving multiple latent constructs and mediation analysis.

### Instrument Development and Measurement

Data were collected using a structured

questionnaire designed to measure the constructs included in the research model. The questionnaire was developed by adapting measurement scales from prior validated studies in the green marketing and consumer behaviour literature. The use of established measurement instruments helps ensure construct validity and improves the reliability of empirical findings (Zaremohzzabieh et al., 2021). The construct of green advertising was measured using items adapted from previous research examining environmental advertising effectiveness and consumer perceptions of sustainability communication (Bodkin et al., 2015; Freudenreich & Penz, 2024; Li, 2025). These items capture the extent to which consumers perceive advertising messages as informative, credible, and reflective of environmental responsibility.

The construct of green product innovation was measured using indicators that reflect consumers' perceptions of environmentally friendly product development and sustainable production practices. These indicators were adapted from studies examining green innovation and sustainability-oriented product development in organisations (Rupasinghe et al., 2024; Yang & Singhdong, 2024; Abadzhiev et al., 2022). The measurement items focus on aspects such as environmentally friendly product design, resource efficiency, and environmentally responsible production processes. The construct of green brand image was operationalised using measurement items that capture consumers' perceptions of a brand's environmental credibility and commitment to sustainability. Previous studies suggest that green brand image plays a critical role in shaping consumer trust and influencing green purchase behaviour (Lin et al., 2017; Yao et al., 2021; Diego & Hidayat, 2025). The scale used in this study reflects consumers' perceptions regarding whether a brand is associated with environmental responsibility, sustainability values, and eco-friendly practices. Finally, green purchase intention was measured using indicators that assess consumers' willingness and intention to purchase environmentally friendly products. These items were adapted

from prior studies examining green consumption behaviour within the TPB framework (Troudi & Bouyoucef, 2020; Rukhsar et al., 2025). The measurement items capture consumers' intentions to choose environmentally friendly products over conventional alternatives when making purchasing decisions.

All measurement items were assessed using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The Likert scale approach is widely used in consumer behaviour research because it allows respondents to express their perceptions and attitudes toward specific constructs in a structured and quantifiable manner (Koay et al., 2024). Before distributing the questionnaire on a larger scale, a pilot test was conducted to ensure clarity, readability, and relevance of the measurement items. The pilot testing process helps identify potential ambiguities in questionnaire wording and ensures that respondents can easily understand the survey items (George et al., 2023).

### **Data Collection Procedure**

The data collection process was conducted using an online survey distribution method, which allows researchers to reach a broader population of Generation Z respondents who are typically highly engaged with digital platforms. Online surveys are particularly appropriate when studying younger consumer segments because they provide efficient access to digitally connected populations (Macheka et al., 2024). Participants were informed about the purpose of the study and assured that their responses would remain confidential and used solely for academic research purposes. Participation in the survey was voluntary, and respondents were required to provide informed consent before completing the questionnaire.

### **Data Analysis Technique**

The collected data were analysed using Structural Equation Modelling (SEM) with the assistance of Analysis of Moment Structures (AMOS-24) software. SEM is an advanced multivariate analysis technique that allows

researchers to simultaneously examine complex relationships among latent variables, including direct and indirect effects (Majeed et al., 2022). This analytical approach is particularly suitable for testing theoretical models that involve mediation relationships among constructs. The analysis followed several stages commonly recommended in SEM studies. First, measurement model evaluation was conducted using confirmatory factor analysis (CFA) to assess the validity and reliability of the measurement scales. This stage examines factor loadings, composite reliability, and average variance extracted (AVE) to ensure that each construct is measured accurately (Koay et al., 2024).

Second, the structural model evaluation was performed to test the hypothesised relationships among constructs. This step involves assessing path coefficients and their statistical significance to determine whether the proposed hypotheses are supported. Model fit indices such as the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Chi-square statistics were also examined to evaluate the adequacy of the model (Kasri et al., 2023). Finally, the mediation effect of green brand image was examined to determine whether this construct significantly mediates the relationships between green advertising, green product innovation, and green purchase intention. Mediation analysis provides deeper insights into the mechanisms through which marketing strategies influence consumer behavioural intentions (Majeed et al., 2022; Patwary et al., 2022). Through these analytical procedures, the study aims to provide a comprehensive understanding of how sustainability-oriented marketing strategies influence green purchase intentions among Generation Z consumers in Indonesia.

## **RESULTS AND DISCUSSION**

### **Outer Model Measurement**

The measurement model was first evaluated to ensure the validity and reliability of the constructs used in this study. Convergent

validity was assessed using the Average Variance Extracted (AVE), with a recommended threshold of 0.50, while construct reliability was evaluated using Composite Reliability (CR), with a minimum acceptable value of 0.70. These criteria are commonly used in Structural Equation Modelling studies to ensure that the measurement indicators adequately represent their respective latent constructs. The results indicate that all constructs meet the recommended criteria for convergent validity and reliability. The **Green Advertising** construct shows an AVE value of 0.875 and a CR value of 0.952, suggesting that the indicators strongly capture the underlying construct and demonstrate excellent internal consistency. Similarly, **Green Product Innovation** exhibits an AVE of 0.838 and a CR of 0.947, indicating that the measurement items reliably reflect consumers' perceptions of environmentally oriented product development. The **Green Brand Image** construct records an AVE value of 0.858 with a CR of 0.947, confirming that the indicators used effectively capture consumers' perceptions of a brand's environmental commitment. Finally, **Green Purchase Intention** shows an AVE of 0.795 and a CR of 0.939, demonstrating that the measurement items consistently represent consumers' intention to purchase environmentally friendly products.

To further strengthen the measurement model evaluation, **discriminant validity** was examined using the Fornell–Larcker criterion. The results indicate that the square root of the AVE for each construct exceeds its correlations with other constructs, confirming that each latent variable is empirically distinct from the others. This result suggests that the measurement items are able to represent their respective constructs without significant overlap with other variables. The strong validity and reliability results indicate that the indicators used in this study effectively capture the theoretical constructs of green advertising, green product innovation, green brand image, and green purchase intention. Consequently, the measurement model can be considered robust and suitable for further structural analysis.

Table 1. Construct Validity and Reliability Results

Construct	AVE	Composite Reliability
Green Advertising	0.875	0.952
Green Product Innovation	0.838	0.947
Green Brand Image	0.858	0.947
Green Purchase Intention	0.795	0.939

### Goodness of Fit Test

The structural model was evaluated using several Goodness-of-Fit (GOF) indices to determine whether the proposed model adequately represents the observed data. The evaluation results are presented in Figure 1.

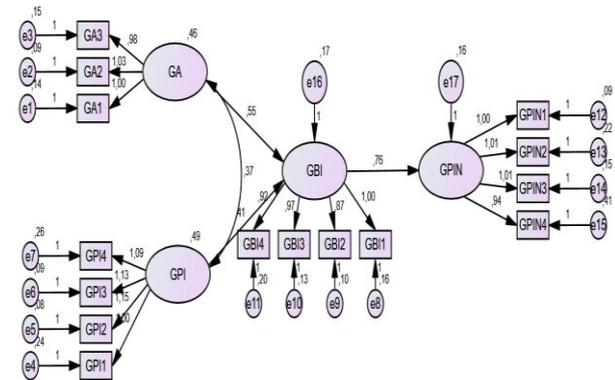


Figure 1. Structural Equation Modeling (SEM)

The Chi-square value obtained in this study is 128.284 with a significance level of 0.000. Although the Chi-square statistic is significant, this result is common in SEM studies with relatively large sample sizes, as the Chi-square test is highly sensitive to sample size and minor model discrepancies. Therefore, other fit indices are considered more reliable indicators of model adequacy. The CMIN/DF value of 3.376 is within the acceptable range, as values below 5 are generally considered acceptable for SEM models. The Tucker-Lewis Index (TLI) of 0.966 and the Comparative Fit Index (CFI) of 0.976 both exceed the recommended threshold of 0.95, indicating excellent model fit. Additionally, the Root Mean Square Error of Approximation (RMSEA) value of 0.079 remains within the acceptable range below 0.08, suggesting that the

model has an acceptable level of approximation error.

However, several indices fall slightly below the ideal cut-off values. The Goodness-of-Fit Index (GFI) of 0.861 and Adjusted Goodness-of-Fit Index (AGFI) of 0.800 are below the recommended threshold of 0.90 but remain within the acceptable “near-fit” category often reported in SEM studies. Similarly, the Parsimony Goodness-of-Fit Index (PGFI) of 0.464 is slightly below the suggested threshold of 0.50. Despite these minor limitations, the majority of key fit indices indicate satisfactory model performance. These results are comparable to those reported in previous SEM-based studies examining green marketing and consumer behaviour, where acceptable model fit is often determined by a combination of multiple fit indices rather than reliance on a single criterion. Therefore, the structural model can be considered sufficiently robust for hypothesis testing and further analysis.

Table 2. Goodness of Fit Indices

Fit Index	Value	Recommended Value	Evaluation
Chi-square	128.284	Smaller is better	Acceptable
CMIN/DF	3.376	≤ 5	Acceptable
GFI	0.861	≥ 0.90	Marginal Fit
AGFI	0.800	≥ 0.90	Marginal Fit
TLI	0.966	≥ 0.95	Good Fit
CFI	0.976	≥ 0.95	Good Fit
RMSEA	0.079	≤ 0.08	Acceptable
PGFI	0.464	≥ 0.50	Marginal Fit
PNFI	0.560	≥ 0.50	Acceptable

### Hypothesis Testing

The structural model was analysed to test the proposed hypotheses regarding the relationships among green advertising, green product innovation, green brand image, and green purchase intention. The standardized path coefficients, critical ratios, and significance levels are presented in Table 3.

Table 3. Structural Path Estimates

Hypothesis	Path	Estimate	S.E.	C.R.	P-value	Result
H1	Green Advertising →	0.548	0.068	8.057	***	Supported

Hypothesis	Path	Estimate	S.E.	C.R.	P-value	Result
H2	Green Product Innovation → Green Brand Image	0.412	0.064	6.403	***	Supported
H3	Green Brand Image → Green Purchase Intention	0.763	0.041	18.566	***	Supported

The results indicate that green advertising has a positive and significant effect on green brand image ( $\beta = 0.548$ ,  $p < 0.001$ ). This finding suggests that environmentally oriented advertising plays an important role in shaping consumers' perceptions of a brand's environmental credibility. The effect size indicates a moderately strong relationship, highlighting the importance of sustainability-oriented communication strategies in strengthening green brand image. Furthermore, green product innovation also has a positive and significant influence on green brand image ( $\beta = 0.412$ ,  $p < 0.001$ ). Although the magnitude of the effect is slightly lower than that of green advertising, the result indicates that consumers evaluate a brand's environmental credibility not only based on promotional communication but also on tangible product innovations that demonstrate environmental responsibility. Finally, the results reveal that green brand image has a strong and significant effect on green purchase intention ( $\beta = 0.763$ ,  $p < 0.001$ ). This relationship exhibits the largest standardized coefficient among the tested paths, indicating that brand-related perceptions play a crucial role in translating sustainability initiatives into consumer purchasing intentions. From a practical perspective, the magnitude of the effect suggests that improving green brand image may represent one of the most effective strategies for companies seeking to encourage environmentally responsible purchasing behaviour among Generation Z consumers.

### Discussion

The findings of this study provide empirical evidence that green advertising significantly influences green brand image. This result reinforces the growing argument in the green marketing literature that sustainability-oriented communication plays a critical role in

shaping consumer perceptions regarding a brand's environmental responsibility. Green advertising serves as an important strategic instrument through which companies communicate their environmental commitments, thereby shaping consumer beliefs about a brand's sustainability orientation. When advertising messages emphasize eco-friendly production, environmental responsibility, or sustainable resource use, consumers tend to perceive the brand as environmentally responsible, which ultimately contributes to the formation of a favourable green brand image. Previous studies have similarly demonstrated that sustainability-oriented advertising messages can strengthen brand associations related to environmental responsibility and influence consumer attitudes toward green products (Braga et al., 2024; Bodkin et al., 2015). In addition, the persuasive effectiveness of environmental advertising has been linked to its ability to integrate environmental narratives into brand storytelling, which enhances consumers' perception that the brand actively contributes to environmental sustainability (Schmuck et al., 2018; Lim et al., 2020).

From a theoretical perspective, the results of this study can be interpreted through the lens of the Theory of Planned Behavior, which emphasizes the role of beliefs and attitudes in shaping behavioural intentions. Green advertising contributes to the formation of environmental beliefs and attitudes toward a brand, thereby influencing the cognitive evaluation process that precedes purchase intention. When consumers are repeatedly exposed to credible environmental messages through advertising, these messages can strengthen their beliefs about the environmental attributes of the brand. Consequently, these beliefs contribute to the development of favourable attitudes toward environmentally friendly products, which ultimately enhance brand image and purchase intention. Prior empirical studies confirm that green marketing communication can influence consumer attitudes and beliefs, which subsequently shape behavioural intentions toward environmentally responsible consumption (Laheri et al., 2024;

Lacasse et al., 2024). This theoretical explanation supports the argument that green advertising functions as a cognitive stimulus that shapes consumers' environmental perceptions and brand-related evaluations.

Nevertheless, the strength of the relationship between green advertising and green brand image observed in this study may also reflect the particular characteristics of Generation Z consumers. Generation Z is widely recognised as a highly digitally connected generation that actively consumes information through digital media platforms and social networks. As a result, marketing communication strategies that emphasize sustainability values may resonate more strongly with this generation compared to older consumer cohorts. Younger consumers tend to exhibit higher environmental awareness and greater sensitivity toward sustainability-related issues, which makes them more responsive to green marketing messages (Hasudungan & Saragih, 2024; Lupindo et al., 2024). Moreover, Generation Z consumers often interpret sustainability messages not merely as product attributes but as expressions of corporate ethical values. Therefore, when brands communicate credible environmental commitments through advertising, these messages may significantly influence how younger consumers evaluate brand authenticity and environmental responsibility.

However, the positive influence of green advertising on brand image must also be interpreted critically in light of the growing concern surrounding greenwashing. While green advertising can strengthen brand image, the increasing prevalence of misleading environmental claims has made consumers more sceptical toward sustainability-oriented marketing communication. The literature on green marketing highlights that exaggerated or unsubstantiated environmental claims can undermine consumer trust and weaken brand credibility (Tu et al., 2024; Carrión-Bósquez et al., 2024). In such cases, consumers may perceive green advertising as merely symbolic or manipulative rather than genuinely reflecting corporate environmental responsibility. Therefore, the effectiveness of green advertising

in shaping brand image depends heavily on the perceived authenticity and credibility of the environmental claims communicated by firms. If consumers perceive the environmental messages as authentic and supported by actual sustainability practices, green advertising can effectively enhance brand image; otherwise, it may generate scepticism and reputational risk.

The results of this study also demonstrate that green product innovation significantly influences green brand image. This finding suggests that beyond marketing communication, tangible product-level innovations play a crucial role in strengthening the environmental credibility of brands. Green product innovation refers to the development of environmentally friendly products, technologies, or production processes that reduce environmental impact while maintaining product functionality and quality. When companies introduce environmentally responsible product innovations, consumers perceive these innovations as evidence of a genuine commitment to sustainability. Consequently, such innovations contribute to the formation of a positive brand image associated with environmental responsibility. Previous research confirms that environmentally oriented innovation strategies can enhance brand equity and strengthen consumers' perceptions of a brand's sustainability performance (Yao et al., 2021; Padilla-Lozano et al., 2024).

From a strategic management perspective, green product innovation can be interpreted as a key capability that enables firms to translate sustainability commitments into tangible value creation. Firms that integrate environmental considerations into their product development processes can simultaneously address environmental concerns and enhance their competitive advantage. Several studies emphasize that green innovation enables organisations to improve operational efficiency, reduce resource consumption, and strengthen their market positioning in environmentally conscious markets (Abadzhev et al., 2022; Yang & Singhdong, 2024). In addition, environmentally innovative firms often gain reputational benefits that enhance consumer

trust and brand loyalty. Consequently, green product innovation not only contributes to environmental sustainability but also reinforces the symbolic value of brands in the marketplace.

The positive effect of green product innovation on brand image identified in this study also highlights the importance of aligning marketing communication with substantive environmental practices. In many cases, sustainability communication alone may not be sufficient to convince consumers of a brand's environmental authenticity. Consumers increasingly expect companies to demonstrate tangible environmental commitments through product design, material selection, and production processes. When product innovations clearly reflect environmental responsibility, consumers are more likely to perceive the brand as credible and trustworthy. Empirical studies in green marketing similarly indicate that consumers tend to evaluate environmental claims more positively when they are supported by observable product attributes or technological innovations (Baquero, 2024; Wu et al., 2024). Therefore, green product innovation serves as a crucial mechanism for reinforcing the credibility of sustainability-oriented marketing strategies.

The results further reveal that green brand image significantly influences green purchase intention. Among the tested relationships, this effect demonstrates the strongest magnitude, indicating that brand-related perceptions play a central role in translating sustainability initiatives into consumer purchasing behaviour. Green brand image represents consumers' overall perception that a brand is committed to environmental responsibility and sustainable practices. When consumers perceive a brand as environmentally responsible, they are more likely to develop trust and positive emotional attachment toward the brand, which ultimately increases their intention to purchase its products. Previous studies have consistently reported that green brand image is a critical determinant of green purchase intention because it shapes consumers' perceptions of brand credibility and environmental authenticity (Mohd Suki, 2016; Lin et al., 2017).

This finding is also consistent with broader theoretical perspectives on consumer behaviour, which emphasize the importance of brand perception in shaping purchasing decisions. Within the framework of the Theory of Planned Behaviour, brand image can be interpreted as a cognitive representation of environmental beliefs associated with a brand. When consumers perceive a brand as environmentally responsible, these perceptions strengthen their attitudes toward purchasing environmentally friendly products. Consequently, the positive relationship between green brand image and purchase intention reflects the role of brand-related beliefs in influencing behavioural intentions. Meta-analytic evidence suggests that positive environmental perceptions of brands significantly increase consumers' willingness to purchase green products (Zaremohzzabieh et al., 2021; Zhuang et al., 2021).

The strong influence of green brand image on purchase intention may also reflect the increasing importance of symbolic consumption among younger consumers. Generation Z consumers often perceive consumption as a means of expressing personal values, identity, and social responsibility. In this context, purchasing environmentally friendly products may serve not only as a functional choice but also as a symbolic expression of environmental concern. As a result, brands that successfully position themselves as environmentally responsible may gain stronger consumer support among younger market segments. Previous research suggests that younger consumers are more likely to prefer brands that align with their ethical and environmental values, particularly when these values are clearly communicated and consistently implemented by firms (Hasudungan & Saragih, 2024; Rodrigo & Mendis, 2023).

The Indonesian socio-cultural context may further strengthen the observed relationship between green brand image and purchase intention. Indonesia has experienced increasing public awareness regarding environmental sustainability, driven by environmental education initiatives, social media discourse, and government campaigns promoting

sustainable consumption. As a result, younger consumers in Indonesia are increasingly exposed to environmental narratives that encourage responsible consumption behaviour. Educational exposure and digital media engagement may therefore amplify the impact of green brand image on purchase intention among Indonesian Generation Z consumers. Similar patterns have been observed in studies examining environmentally conscious consumption among younger consumers in emerging economies, where social media and educational influences significantly shape sustainability-oriented consumer behaviour (George et al., 2023; Macheke et al., 2024).

Despite these positive relationships, it is important to acknowledge that the effectiveness of green brand image in influencing purchase intention may also depend on the perceived authenticity of corporate sustainability practices. In markets where greenwashing is prevalent, consumers may become increasingly cautious when evaluating environmental claims made by companies. If consumers perceive a discrepancy between a brand's environmental communication and its actual environmental practices, the credibility of the brand image may be compromised. Consequently, firms must ensure that their sustainability communication strategies are supported by genuine environmental initiatives and transparent sustainability reporting. Prior research highlights that authenticity and transparency are essential for maintaining consumer trust in sustainability-oriented brands (Tu et al., 2024; Carrión-Bósquez et al., 2024).

Overall, the findings of this study provide important insights into the mechanisms through which green marketing strategies influence consumer behaviour. The results demonstrate that both green advertising and green product innovation contribute to the formation of a positive green brand image, which in turn significantly influences green purchase intention. These findings highlight the importance of integrating communication strategies with substantive environmental innovation in order to build credible sustainability-oriented brands. For firms

targeting Generation Z consumers, the ability to combine authentic environmental innovation with transparent sustainability communication may represent a critical factor in encouraging environmentally responsible purchasing behaviour.

## CONCLUSION

This study demonstrates that green advertising and green product innovation play important roles in shaping green brand image, which subsequently influences green purchase intention among Generation Z consumers in Indonesia. The empirical findings indicate that sustainability-oriented communication and environmentally responsible product innovation significantly strengthen consumers' perceptions of a brand's environmental commitment. Furthermore, the results confirm that green brand image functions as a key mechanism through which green marketing strategies translate into consumers' intention to purchase environmentally friendly products. These findings highlight the growing importance of sustainability-oriented marketing strategies in influencing consumer behaviour in contemporary markets. From a theoretical perspective, this study contributes to the development of green consumption research by extending the application of the Theory of Planned Behavior in the context of sustainable marketing. Specifically, the findings demonstrate that marketing-driven signals such as green advertising and green product innovation influence behavioural intention indirectly through the mediating role of green brand image. This perspective enriches existing TPB-based models, which traditionally emphasize psychological determinants of behaviour, by highlighting the importance of brand-related cognitive mechanisms in shaping environmentally responsible consumption. From a managerial perspective, the results suggest that companies should not rely solely on promotional communication when promoting environmentally friendly products. Instead, firms must integrate credible green advertising with tangible green product innovation in order

to build a strong and trustworthy green brand image. For companies targeting Generation Z consumers, authenticity and transparency in sustainability communication are particularly important, as this consumer segment tends to be more sensitive to environmental issues and sceptical toward misleading sustainability claims.

Companies that successfully align marketing communication with genuine environmental practices are more likely to strengthen consumer trust and encourage environmentally responsible purchasing behaviour. From a policy perspective, the findings highlight the importance of encouraging corporate transparency and accountability in sustainability communication. Regulatory bodies and policymakers may consider developing clearer standards for environmental claims in advertising to reduce the risk of greenwashing and enhance consumer trust in sustainability-oriented marketing practices. Despite its contributions, this study has several limitations. First, the research focuses only on Generation Z consumers in Indonesia, which may limit the generalizability of the findings to other generational groups or cultural contexts. Second, the cross-sectional research design restricts the ability to establish causal relationships among the variables examined. Future research could address these limitations by conducting longitudinal studies, comparative generational analyses, or cross-cultural investigations. Additionally, future studies may incorporate moderating variables such as environmental knowledge, consumer trust, or perceived greenwashing in order to provide a more comprehensive understanding of the factors influencing green purchase intention.

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