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Impact of Greenwashing, Subjective Norm, and Perceived Behavioral Control on Purchase Intention for Eco-Friendly Packaged Fast-Moving Consumer Goods: The Mediating Role of Green Trust

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Abstract *- The rising public awareness of environmental issues has influenced consumer behavior, particularly in purchasing environmentally friendly products. This study analyzes the influence of Greenwashing, Subjective Norm, and Perceived Behavioral Control on Green Purchase Intention for eco-friendly packaged Fast Moving Consumer Goods (FMCG), with Green Trust as a mediating variable. A total of 250 respondents from Banten, Jakarta, and West Java, who are knowledgeable about environmental issues and eco-friendly FMCG products, were selected through purposive sampling. Data were analyzed using Structural Equation Modeling (SEM) with SmartPLS. Results indicate that Subjective Norm and Perceived Behavioral Control have a significant positive effect on Green Trust. Additionally, Subjective Norm, Perceived Behavioral Control, and Green Trust significantly influence Green Purchase Intention. While Greenwashing does not significantly affect Green Trust, it has a significant negative effect on Green Purchase Intention. Mediation analysis shows that Green Trust does not mediate the relationship between Greenwashing and Green Purchase Intention, but partially mediates the relationships between Subjective Norm and Perceived Behavioral Control with Green Purchase Intention. These findings offer important theoretical and practical insights into consumer behavior toward environmentally friendly packaged products.*

Keywords*: Greenwashing, Subjective Norm, Perceived Behavioral Control, Green Trust, Green Purchase Intention.*

I. INTRODUCTION

In recent years, growing environmental concerns have prompted global movements toward sustainable development. The United Nations' Sustainable Development Goals (SDGs), particularly SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action), emphasize the need for systemic changes in production and consumption patterns to reduce environmental degradation (Bhuiyan & Darda, 2021; Saini et al., 2022). Amid accelerating climate change, excessive resource exploitation, and waste accumulation, consumers, governments, and corporations are increasingly pressured to adopt environmentally responsible behaviors (Imaningsih et al., 2023; Kisieliauskas & Jancaitis, 2022).

In this context, eco-friendly packaging has emerged as a critical component of sustainable marketing, particularly in the Fast Moving Consumer Goods (FMCG) sector. As demand grows for products with minimal environmental impact, companies are shifting toward greener packaging to align with consumer values. However, while some businesses adopt genuine sustainability strategies, others engage in greenwashing, conveying misleading environmental claims without real commitment, thereby undermining consumer trust and distorting market dynamics (Kollewe, 2023; Nguyen et al., 2019).

Indonesia, as one of Southeast Asia's largest FMCG markets, faces mounting environmental challenges. Household plastic waste, largely driven by FMCG packaging, constitutes a significant portion of total waste (Indonesia Baik, 2023; Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia, 2023). Despite sustainability reports and ESG disclosures, several leading FMCG companies in Indonesia remain major contributors to plastic pollution (Greenpeace Indonesia, 2024; Mubarok, 2024). This discrepancy has raised questions about the effectiveness of green marketing in building consumer trust and influencing purchase intentions.

Previous studies suggest that consumer green purchase intention is shaped not only by green trust but also by subjective norms and perceived behavioral control, two components of the Theory of Planned Behavior (Ajzen, 1991). These factors reflect the influence of social expectations and perceived ease in adopting eco-friendly behavior (Guo et al., 2021; Agrawal & Ansari, 2022). However, findings remain inconsistent across contexts. For instance, while green trust is found to enhance purchase intentions (Guerreiro & Pacheco, 2021), the impact of greenwashing on green trust varies, with some studies reporting no significant relationship (Tarabieh, 2021; Urbański & Ul Haque, 2020). Moreover, the influence of subjective norms is often weaker in regions with lower environmental awareness (Kamalanon et al., 2022).

Despite increasing research on green consumerism, few studies have comprehensively examined how greenwashing, subjective norms, and perceived behavioral control influence green purchase intention through green trust, particularly in developing countries like Indonesia. This study addresses this gap by analyzing the role of green trust as a mediator in these relationships within the eco-friendly FMCG packaging sector. The findings aim to provide valuable insights for companies seeking to foster genuine trust and drive sustainable purchasing behavior among Indonesian consumers.

According to Qayyum et al. (2022), greenwashing refers to misleading environmental claims made by companies to appear environmentally responsible without real efforts to reduce ecological impact. This practice is often used to capitalize on the increasing consumer demand for eco-friendly products. However, such misleading behavior can damage green trust, which is defined as consumer confidence in the environmental claims of a product (Chen & Chang, 2013). Green trust is essential in influencing consumers' purchasing decisions toward green products. When consumers trust a company's environmental claims, they are more likely to support the brand. In contrast, exposure to greenwashing reduces this trust significantly, leading to skepticism and reluctance to buy. Eversmann (2019) examined this issue through an experiment involving a fictional company called "BIOproducts." The results showed that once participants learned about the company's greenwashing practices, their trust sharply declined. This demonstrates that environmentally conscious consumers are sensitive to false environmental messaging, which can harm brand reputation. Similarly, Nguyen et al. (2021) conducted a study in Vietnam focused on green electronic products. The findings confirmed that consumers responded negatively to greenwashing, especially when the claims were unsupported by real sustainability efforts. Both studies highlight the critical role of transparency in building and maintaining consumer trust. In sum, greenwashing negatively affects consumer perception and can erode trust in a brand's environmental integrity. Maintaining honesty and transparency is therefore vital for companies promoting eco-friendly products. Based on the literature, this study proposes the following hypothesis:

H1: Greenwashing has a negative and significant effect on green trust in environmentally friendly packaging of FMCG products.

Subjective norm refers to the perceived social pressure from significant others, such as family, friends, or broader society, that influences an individual's behavior and decision-making (Ajzen, 1991). In the context of environmentally friendly products, subjective norms play a crucial role in shaping individuals' trust toward the sustainability of these products. Social approval or encouragement can strengthen consumer belief in the credibility of green initiatives.

Xia et al. (2024) examined the impact of subjective norm on both cognitive trust and affective trust within the context of AI-based food products. Their findings suggest that social influences, such as familial opinions and media narratives, positively shape consumers' trust in the functionality (cognitive trust) and emotional appeal (affective trust) of sustainable technologies. This indicates that social norms can enhance trust in innovative, environmentally conscious products.

Similarly, Chan et al. (2022) conducted a study in Malaysia on green investment behavior. Their results demonstrated that subjective norm significantly influenced trust toward sustainable financial products. When individuals sensed social encouragement to engage in green investment, they were more likely to develop trust in such initiatives. These findings highlight the importance of social dynamics in building trust toward eco-friendly actions and offerings.

Both studies underline the influential role of subjective norm in shaping green trust. When individuals perceive social support for choosing environmentally responsible products, they are more inclined to trust the product's green claims and sustainability efforts. Based on these findings, this study proposes the following hypothesis:

H2: Subjective norm has a positive and significant effect on green trust in environmentally friendly packaging of FMCG products.

Perceived Behavioral Control (PBC) refers to an individual's perception of their ability to perform a certain behavior, including the extent to which they feel capable of taking the desired action (Ajzen, 1991). In the context of environmentally friendly product consumption, PBC plays a vital role in influencing an individual's trust in the sustainability of such products.

Chan et al. (2022) explored this relationship in a study on green investment behavior in Malaysia. Their findings revealed that PBC had a positive influence on trust toward sustainable investment initiatives. Investors who felt confident in their ability to engage with green projects were more likely to trust the companies offering these environmentally focused solutions. This suggests that a strong sense of control can foster greater confidence in the credibility of green offerings.

These findings reinforce the idea that PBC is not only a key predictor of behavioral intention but also a significant contributor to green trust. When individuals believe they have sufficient resources, knowledge, or opportunities to choose sustainable options, they are more likely to trust the environmental claims associated with those products.

Therefore, perceived behavioral control serves as an important psychological factor in establishing consumer trust toward eco-friendly practices and offerings. Based on the literature review, this study proposes the following hypothesis:

H3: Perceived Behavioral Control has a positive and significant effect on green trust in environmentally friendly packaging of FMCG products.

Green trust is defined as a consumer's positive belief in an environmentally friendly product, based on the product's credibility, environmental impact, and ecological performance (Syahputra & Yeni, 2021). It reflects the extent to which consumers believe that a company or product is genuinely committed to sustainability.

Several studies have confirmed the positive influence of green trust on green purchase intention. Guerreiro and Pacheco (2021), in a study conducted in Portugal, found that consumers' trust in the environmental commitments of companies such as Nestlé and Apple significantly increased their intention to purchase green products. Similarly, Eversmann (2019) found that trust in a fictional organic brand, "BIOproducts," strongly predicted consumer purchase intention, supporting the Theory of Planned Behavior, which highlights trust as a central factor in decision-making.

In China, Xia et al. (2024) demonstrated that both cognitive and affective trust positively influenced purchase intention for AI-based food products. This implies that trust, across multiple dimensions, plays a key role in consumer choices, even in the context of emerging technologies.

Supporting evidence also comes from Southeast Asia. Syahputra and Yeni (2021) found a significant positive relationship between green trust and green purchase intention in Padang, Indonesia, particularly for herbal products. Similarly, Tarabieh (2021) in Jordan and Nguyen et al. (2021) in Vietnam confirmed this relationship in the food & beverage and electronics sectors, respectively.

Wang et al. (2019) further validated the effect of green trust among young Chinese consumers (aged 21–35), indicating that trust in environmental claims enhances willingness to purchase green products. These consistent findings across various countries and industries highlight green trust as a powerful driver of green purchase intention. Based on the literature, this study proposes the following hypothesis:

H4: Green trust has a positive and significant effect on green purchase intention in environmentally friendly packaging of FMCG products.

Greenwashing refers to the practice in which companies present themselves as more environmentally responsible than they truly are, often through misleading claims about the sustainability of their products or corporate policies. This deceptive strategy can have a detrimental effect on consumer behavior, particularly regarding their intention to purchase green products.

Nguyen et al. (2019) investigated this issue in the Vietnamese food industry, specifically focusing on green vegetables. Their study found that inaccurate environmental claims significantly reduced consumers' green purchase intention. When consumers perceived that companies exaggerated or falsely represented their environmental efforts, they became less inclined to buy the products.

Further evidence from Nguyen et al. (2021) confirmed similar findings in the context of eco-friendly electronic products. The study revealed that greenwashing weakened consumers' trust and diminished their willingness to engage in green consumption. Dishonest or overstated sustainability claims led to increased skepticism and reduced purchase intention.

These findings reinforce the notion that greenwashing undermines consumer confidence and creates hesitation in making environmentally responsible purchase decisions. As consumers become more aware and

critical of green marketing claims, they are likely to avoid products associated with misleading environmental information.

In conclusion, greenwashing not only damages a company's reputation but also directly hinders the effectiveness of its green marketing strategies by reducing green purchase intention. Based on these findings, this study proposes the following hypothesis:

H5: Greenwashing has a negative and significant effect on green purchase intention in environmentally friendly packaging of FMCG products.

Subjective norm refers to the perceived social pressure that influences an individual's decision-making, particularly in relation to pro-environmental behavior. In the context of green consumerism, subjective norm has been widely recognized as a significant factor shaping green purchase intention.

Guo et al. (2021) found that subjective norm positively influenced purchase intention for bottled water in China, highlighting the role of social influence in encouraging eco-friendly choices. Similarly, Shang et al. (2024) reported a positive relationship between subjective norm and green purchase intention among university students across three provinces in China, reinforcing the idea that social support enhances sustainability awareness.

Although Saut and Saing (2021) found a relatively weaker influence among Generation Z students in Cambodia, the impact of social pressure remained statistically significant. In Indonesia, Setyawan et al. (2018) also identified a positive relationship between subjective norm and green purchase intention among young consumers.

Supporting evidence has also emerged from other Asian countries. Abeysekera et al. (2022) noted that business students in the Philippines were more inclined to buy green products due to social influence. Kumar and Pandey (2023) in India, Bui et al. (2021) in Vietnam, and Wang et al. (2019) in China all confirmed the role of subjective norm in promoting green purchasing behavior among younger, sustainability-conscious consumers.

Further validation was provided by Delistavrou et al. (2022) in Greece and Zainudin et al. (2022) in Malaysia, who found that subjective norms significantly enhanced the green purchase intention of Generation Y consumers and university students, respectively.

These findings suggest that supportive social norms can effectively strengthen consumers' intentions to purchase environmentally friendly products. Based on the literature, the following hypothesis is proposed:

H6: Subjective norm has a positive and significant effect on green purchase intention in environmentally friendly packaging of FMCG products.

Perceived Behavioral Control (PBC) refers to an individual's perception of the ease or difficulty in performing a particular behavior, such as purchasing environmentally friendly products. It is a core component of the Theory of Planned Behavior (Ajzen, 1991) and is often associated with a person's confidence in their ability to take action.

Several studies have shown that PBC significantly influences green purchase intention. Guo et al. (2021), in a study on bottled water consumption in China, found that consumers who perceived greater control over product choice exhibited stronger purchase intentions. Similarly, Ruslim et al. (2022) demonstrated that PBC positively affected the intention to purchase eco-friendly skincare products in Jakarta.

In China, Shang et al. (2024) confirmed the influence of PBC among university students purchasing green products. Saut and Saing (2021) reported similar findings in Cambodia, where Generation Z students with higher perceived control were more likely to engage in green purchasing behavior. In Indonesia, Lukmawan and Wulandari (2024) found a significant relationship between PBC and purchase intention among Millennials and Gen Z in Jabodetabek.

Other supporting studies include Setyawan et al. (2018), Abeysekera et al. (2022) in the Philippines, Harjadi and Gunardi (2022) in Indonesia, and Lavuri et al. (2021) in India, all of which identified PBC as a key factor in predicting eco-friendly purchase behavior among young consumers. Additionally, Bui et al. (2021) in Vietnam, Wang et al. (2019) in China, and Delistavrou et al. (2022) in Greece confirmed that consumers with a strong sense of control are more inclined to buy green products.

These consistent findings suggest that when consumers feel empowered to act, their intention to purchase environmentally friendly products increases. Based on the literature, the following hypothesis is proposed:

H7: Perceived Behavioral Control has a positive and significant effect on green purchase intention in environmentally friendly packaging of FMCG products.

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In the context of green marketing, the interplay between greenwashing, green trust, and green purchase intention has been widely examined. Greenwashing, defined as misleading environmental claims made by companies to appear more environmentally responsible than they truly are, can negatively affect consumer trust and intention to purchase green products.

Eversmann (2019) found that greenwashing leads to consumer skepticism, damaging trust in corporate sustainability efforts. Similarly, Nguyen et al. (2021) confirmed that greenwashing undermines green trust, reducing consumer belief in the authenticity of eco-friendly claims.

Green trust plays a critical role in shaping green purchase intention. Consumers are more likely to purchase products from brands they perceive as genuinely committed to sustainability (Wang et al., 2019; Tarabieh, 2021). While greenwashing directly reduces purchase intention, it also has an indirect effect through erosion of green trust. When trust is compromised, consumers are less inclined to follow through with green purchasing decisions.

Given this pathway, green trust is proposed as a mediating variable between greenwashing and green purchase intention. That is, greenwashing negatively affects trust, which in turn weakens consumers' willingness to buy environmentally friendly products. Based on the literature, the following hypothesis is proposed:

H8: Green trust mediates the relationship between greenwashing and green purchase intention in environmentally friendly packaging of FMCG products.

Subjective norm refers to the perceived social pressure from individuals' surroundings, such as family, friends, and media, that influences their behavior, including the decision to purchase environmentally friendly products. These social influences can shape consumer trust in green products and brands.

When consumers are exposed to social norms that favor sustainable behaviors, they are more likely to develop green trust, which reflects their belief in the authenticity of a company's environmental commitment. Xia et al. (2024) found that sustainability-oriented subjective norms enhance consumer trust in green products.

Green trust, in turn, is a key determinant of green purchase intention. Prior studies (Guerreiro & Pacheco, 2021; Syahputra & Yeni, 2021) have demonstrated that higher green trust leads to stronger purchase intentions, especially when supported by favorable social norms. Chan et al. (2022) also confirmed that subjective norms positively influence green trust, which then strengthens the intention to purchase eco-friendly products.

Therefore, subjective norm is proposed to influence green purchase intention indirectly through green trust. That is, supportive social norms enhance consumer trust in green products, which increases their intention to make sustainable purchases. Based on these findings, the following hypothesis is proposed:

H9: Green trust mediates the relationship between subjective norm and green purchase intention in environmentally friendly packaging of FMCG products.

Perceived behavioral control (PBC) reflects consumers' perception of their ability and resources to perform a specific behavior, such as purchasing environmentally friendly products. High PBC increases consumers' confidence in their capacity to make green purchases. Guo et al. (2021) found that greater PBC is associated with a higher likelihood of purchasing eco-friendly products due to a stronger belief in personal control over the behavior.

PBC also plays a role in shaping green trust. Consumers with higher PBC are more likely to believe in the credibility of environmental claims and in a company's commitment to sustainability. Chan et al. (2022) suggest that PBC positively influences consumer trust in both green brands and their environmental efforts. Individuals who feel in control of their purchasing decisions are more inclined to trust companies' sustainability claims.

In turn, green trust is a strong predictor of green purchase intention. As supported by Guerreiro and Pacheco (2021) and Syahputra and Yeni (2021), when consumers trust a company's green initiatives, their intention to buy eco-friendly products increases.

Although few studies have directly tested the mediating role of green trust between PBC and green purchase intention, the established relationships between these variables support the assumption that green trust serves as a mediating variable. It helps explain how PBC influences consumers' purchase intention through trust in environmental claims. Based on these findings, the following hypothesis is proposed:

H10: Green trust mediates the relationship between perceived behavioral control and green purchase intention in environmentally friendly packaging of FMCG products.

Then, the author has made the research model as shown below in Figure 1:

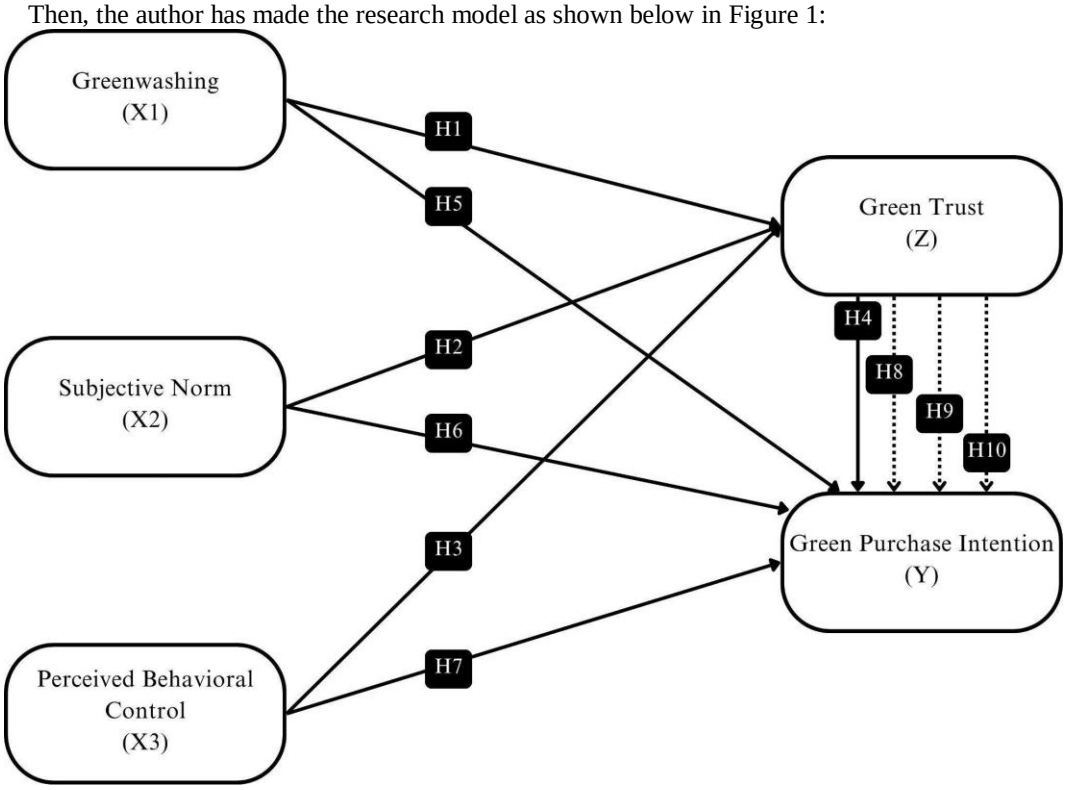

Figure 1. Research Model

II. METHOD

This study employs a quantitative research method with a causal approach aimed at identifying, explaining, and predicting the strength of relationships between independent, mediating, and dependent variables. Data were collected through a structured online questionnaire distributed via social media platforms such as Instagram, WhatsApp, and LinkedIn. Respondents were selected using a non-probability purposive sampling technique, based on specific criteria, including: (1) awareness of FMCG products with environmentally friendly packaging, (2) understanding of environmental issues, and (3) domicile in DKI Jakarta, Banten, or West Java. These provinces were selected due to their high purchasing power and increasing environmental awareness.

The total number of valid indicators used in this research is 25. Following the guideline proposed by Hair et al. (2022), the ideal sample size is calculated as 25 indicators × 10, resulting in a minimum target of 250 respondents. In total, over 200 valid responses were collected to ensure statistical power and model robustness.

The questionnaire was measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). All research variables were measured using indicators adapted from previous studies. The dependent variable, green purchase intention, was measured based on five indicators including willingness to switch brands and prioritization of green products (Tarabieh, 2021; Guerreiro & Pacheco, 2021; Lavuri et al., 2021; Wang et al., 2019). The independent variables include greenwashing, subjective norm, and perceived behavioral control, while green trust is tested as a mediating variable. All constructs and indicators were adopted from validated sources and operationalized accordingly.

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.1 software. The analysis was carried out in two stages: the measurement model (outer model) and the structural model (inner model). The outer model was evaluated for reliability and validity using criteria such as factor loadings (>0.70), composite reliability (>0.70), Cronbach's alpha (>0.70), average variance extracted (AVE >0.50), and discriminant validity (Fornell-Larcker, Cross Loading, and HTMT). The inner model was assessed through R^2, f^2, and Q^2 values to determine the predictive power and significance of hypothesized relationships. Hypotheses were tested based on the t-statistics generated through bootstrapping, with significance thresholds set at ±1.96 for two-tailed tests at a 5% significance level.

The model fit was further evaluated using SRMR (<0.08) and NFI (>0.90) values. Multicollinearity was checked through VIF values (<5). The mediation effects were tested using indirect effect analysis with

bootstrapping procedures. The research model was designed to assess both direct and indirect relationships, including the mediating effect of green trust on the influence of greenwashing, subjective norm, and perceived behavioral control on green purchase intention.

III. RESULT AND DISCUSSION

A. Result

There were 250 valid responses collected through an online questionnaire distributed via social media platforms such as WhatsApp, LinkedIn, and Instagram over the course of one month. Initially, 278 responses were recorded, but 28 were excluded due to not meeting the pre-established screening criteria.

The majority of respondents were male (56.8%), while females comprised 43.2%. In terms of domicile, most respondents resided in DKI Jakarta (34%), followed by Banten (33.2%) and West Java (32.8%). Respondents varied in age, with the highest proportion between 18–25 years old (30.8%), followed closely by those aged 26–35 (30.4%). Additionally, 22.4% were above 45 years old, and only 0.4% were under 18.

Educational background was dominated by respondents holding a bachelor's degree (55.6%), followed by senior high school graduates (19.6%), master's degree holders (18.8%), doctoral degree holders (5.6%), and a small number with junior high school education (0.4%).

In terms of employment, the largest group consisted of private-sector employees (31.6%), followed by state-owned enterprise employees (18.8%), civil servants (17.2%), housewives (12.4%), entrepreneurs (12%), and students (8%).

Monthly income levels varied, with most respondents earning more than IDR 8,000,000 (46.8%), followed by those earning between IDR 5,000,001 and IDR 8,000,000 (27.2%). Others earned between IDR 2,500,001–5,000,000 (14.4%), IDR 1,000,001–2,500,000 (6.4%), and less than IDR 1,000,000 (5.2%).

Table 1. Sample Description

Criteria		Total	%
Gender	Male	142	56.80%
	Female	108	43.20%
Domicile	Banten	83	33.20%
	DKI Jakarta	85	34.00%
	West Java	82	32.80%
Age (per February 2025)	<18 years	1	0.40%
	18-25 years	77	30.80%
	26-35 years	76	30.40%
	36-45 years	40	16.00%
	>45 years	56	22.40%
Highest education	Junior High School	1	0.40%
	Senior High School	49	19.60%
	Bachelor's Degree	139	55.60%
	Master's Degree	47	18.80%
	Doctoral Degree	14	5.60%
Occupation	Student	20	8.00%
	Private Sector Employee	79	31.60%
	State-Owned Enterprise Employee	47	18.80%
	Entrepreneur / Self-employed	30	12.00%
	Civil Servant	43	17.20%
	Homemaker	31	12.40%
Monthly Income	<Rp 1.000.000	13	5.20%

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Criteria	Total	%
Rp 1.000.001 - Rp 2.500.000	16	6.40%
Rp 2.500.001 - Rp 5.000.000	36	14.40%
Rp 5.000.001 - Rp 8.000.000	68	27.20%
>Rp 8.000.000	117	46.80%

The evaluation of the measurement model (outer model) aims to assess the validity and reliability of the constructs used in the study. This evaluation involves six key indicators: factor loading, reliability, convergent validity, discriminant validity, model fit, and collinearity statistics. First, factor loading (outer loading) assesses the strength of the relationship between each indicator and its corresponding construct, with acceptable values exceeding 0.7. Indicators with loadings below 0.4 should be removed, while values between 0.5 and 0.7 may be considered acceptable depending on the context (Hair et al., 2022). Second, reliability is measured using Cronbach's Alpha and Composite Reliability. Constructs with values above 0.7 for both metrics are deemed reliable and consistent (Hair et al., 2022).

Third, convergent validity is tested using the Average Variance Extracted (AVE), where a value above 0.5 indicates that the construct explains more than half of the variance of its indicators (Hair et al., 2022). Fourth, discriminant validity ensures that each construct is empirically distinct from others. This is assessed through three methods: the Fornell-Larcker criterion, where the square root of AVE must be greater than the correlations with other constructs; cross loading, where indicators should load higher on their intended constructs than on others; and the Heterotrait-Monotrait (HTMT) ratio, which should be below 0.90 to confirm discriminant validity (Hair et al., 2022).

Fifth, the model fit is evaluated using the Standardized Root Mean Square Residual (SRMR) and Normed Fit Index (NFI). An SRMR value below 0.08 indicates a good fit, while an NFI above 0.90 is preferred, although achieving one of these thresholds is sufficient for model acceptance (Hair et al., 2022). Lastly, collinearity statistics are examined using the Variance Inflation Factor (VIF) to ensure no multicollinearity exists among constructs. VIF values below 5 indicate that the model does not suffer from multicollinearity issues and is robust for further analysis (Hair et al., 2022). Taken together, these six evaluation criteria confirm that the measurement model in this study demonstrates satisfactory validity and reliability for academic and empirical applications.

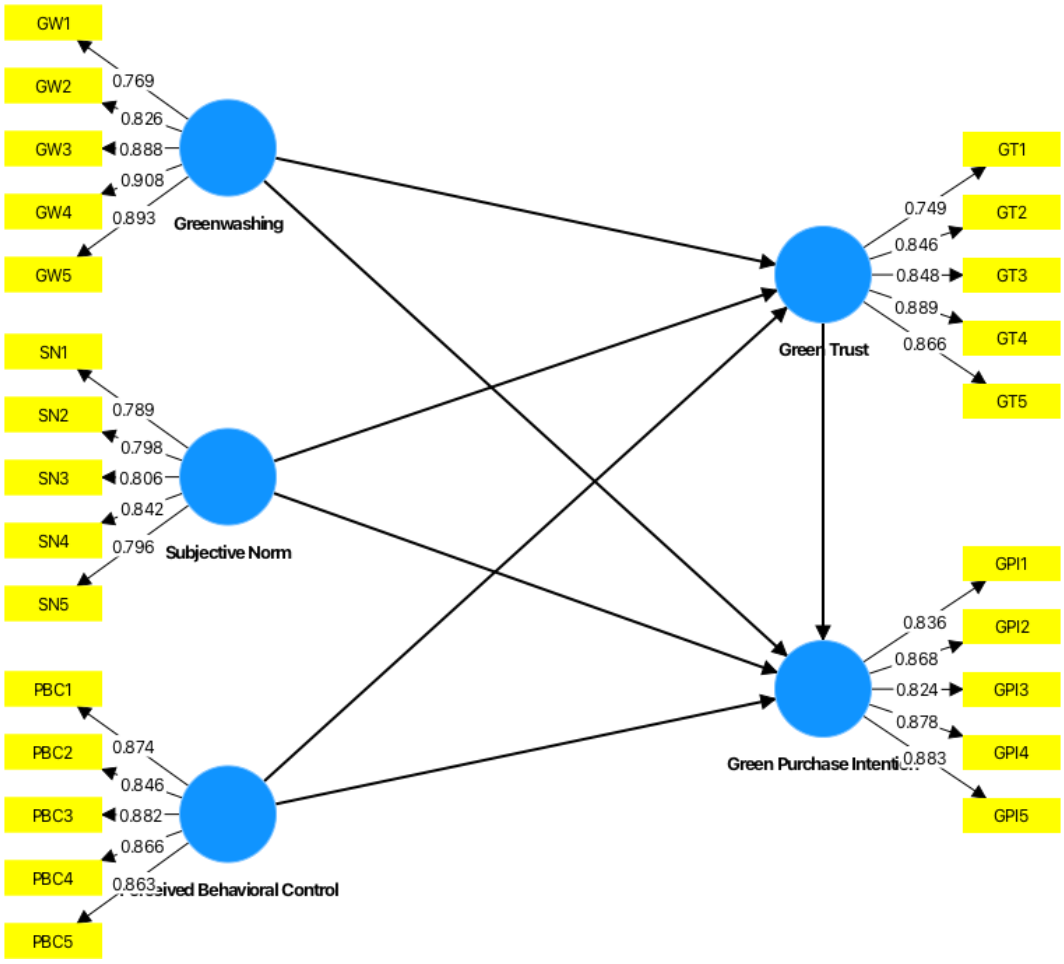

Figure 2. Valid Research Model
Source: processing result of SmartPLS 4.1 (2025)

Table 2. Items Loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE)

Variables	Items	Outer Loadings	Cronbach's Alpha	Composite Reliability	AVE
Greenwashing (GW)	GW1	0.768	0.915	0.933	0.737
	GW2	0.826			
	GW3	0.888			
	GW4	0.908			
	GW5	0.893			
Subjective Norm (SN)	SN1	0.789	0.866	0.903	0.75
	SN2	0.798			
	SN3	0.806			
	SN4	0.842			
	SN5	0.796			
Perceived Behavioral Control (PBC)	PBC1	0.874	0.917	0.938	0.651

	PBC2	0.846			
	PBC3	0.882			
	PBC4	0.866			
	PBC5	0.863			
Green Trust (GT)	GT1	0.749	0.896	0.923	0.707
	GT2	0.846			
	GT3	0.848			
	GT4	0.889			
	GT5	0.866			
Green Purchase Intention (GPI)	GPI1	0.836	0.91	0.933	0.736
	GPI2	0.868			
	GPI3	0.824			
	GPI4	0.878			
	GPI5	0.883			

Source: processing result of SmartPLS 4.1 (2025)

Table 3. Discriminant Validity

Variables	*Green Purchase Intention*	*Green Trust*	*Greenwashing*	*Perceived Behavioral Control*	*Subjective Norm*
Green Purchase Intention	**0.858**				
Green Trust	0.534	**0.841**			
Greenwashing	-0.275	-0.206	**0.858**		
Perceived Behavioral Control	0.506	0.586	-0.174	**0.866**	
Subjective Norm	0.533	0.559	-0.198	0.621	**0.807**

Source: processing result of SmartPLS 4.1 (2025)

Table 4. Fit Model

Fit Model	Value
SRMR	0.057
NFI	0.868

Source: processing result of SmartPLS 4.1 (2025)

Table 5. VIF

Direct Effects	VIF

Direct Effects	VIF
Greenwashing → Green Trust	1.046
Subjective Norm → Green Trust	1.649
Perceived Behavioral Control → Green Trust	1.634
Green Trust → Green Purchase Intention	1.699
Greenwashing → Green Purchase Intention	1.056
Subjective Norm → Green Purchase Intention	1.808
Perceived Behavioral Control → Green Purchase Intention	1.833

Source: processing result of SmartPLS 4.1 (2025)

Table 6. R Square Value

Variables	R Square	R Square Adjusted
Green Purchase Intention (GPI)	0.400	0.391

Source: processing result of SmartPLS 4.1 (2025)

Table 7. f Square Value

Direct Effects	*f-Square*	Description
Greenwashing → Green Trust	0.01	Small
Subjective Norm → Green Trust	0.096	Small
Perceived Behavioral Control → Green Trust	0.152	Moderat
Green Trust → Green Purchase Intention	0.069	Small
Greenwashing → Green Purchase Intention	0.032	Small
Subjective Norm → Green Purchase Intention	0.058	Small
Perceived Behavioral Control → Green Purchase Intention	0.026	Small

Source: processing result of SmartPLS 4.1 (2025)

Table 8. Predictive Relevance (Q^2)

Variabel	Q^2	Description
Green Purchase Intention	0.326	Possesses relevant predictive power

Source: processing result of SmartPLS 4.1 (2025)

Table 9. Hypothesis Testing

Hypothesis	Relationship	*Original Sample (O)*	*T-Statistics (|O/STDEV|)*	*P Values*	Decision
H1	*GW → GT*	-0.078	1.462	0.072	Not Supported
H2	*SN → GT*	0.306	4.165	0	Supported
H3	*PBC → GT*	0.383	5.137	0	Supported

H4	$GT \rightarrow GPI$	0.265	4.201	0	Supported
H5	$GW \rightarrow GPI$	-0.142	1.945	0.026	Supported
H6	$SN \rightarrow GPI$	0.251	3.215	0.001	Supported
H7	$PBC \rightarrow GPI$	0.17	2.215	0.013	Supported
H8	$GW \rightarrow GT \rightarrow GPI$	-0.021	1.308	0.191	Not Supported
H9	$SN \rightarrow GT \rightarrow GPI$	0.081	2.754	0.006	Supported
H10	$PBC \rightarrow GT \rightarrow GPI$	0.101	3.102	0.002	Supported

Source: processing result of SmartPLS 4.1 (2025)

The evaluation of the structural model (inner model) focuses on assessing the predictive relationships between latent variables. This process involves three key indicators: R-Square (R^2), Effect Size (f^2), and Predictive Relevance (Q^2). First, R^2 indicates the proportion of variance in the endogenous construct explained by its associated exogenous constructs. According to Hair et al. (2022), R^2 values of 0.75, 0.50, and 0.25 are considered substantial, moderate, and weak, respectively, while in consumer behavior research, even an R^2 of 0.20 can be deemed acceptable. In this study, the R^2 for Green Purchase Intention was 0.400, which reflects a moderate level of explanatory power, suggesting that the model's exogenous variables (Greenwashing, Subjective Norm, and Perceived Behavioral Control) account for 40% of the variance in the endogenous construct.

Second, the Effect Size (f^2) measures the impact magnitude of an exogenous variable on an endogenous construct by observing changes in R^2 when the variable is excluded. Based on the thresholds proposed by Ghozali and Latan (2015), f^2 values of 0.02, 0.15, and 0.35 indicate small, medium, and large effects, respectively. The results reveal that most relationships exhibit small effect sizes, except for the influence of Perceived Behavioral Control on Green Trust, which shows a moderate effect ($f^2 = 0.152$), indicating a relatively more substantial contribution.

Lastly, the Predictive Relevance (Q^2) assesses the model's ability to predict data not included in model estimation. A Q^2 value greater than zero signifies that the model has predictive relevance. As reported, the Q^2 value for Green Purchase Intention was 0.326, confirming that the model possesses adequate predictive power for the endogenous variable (Ghozali and Latan, 2015). In summary, the structural model demonstrates acceptable levels of explanatory power, moderate to small effect sizes, and relevant predictive ability, supporting its adequacy for further hypothesis testing and theoretical interpretation.

The hypothesis testing results reveal a diverse range of significant and non-significant relationships within the structural model. Greenwashing had no significant effect on Green Trust (H1 rejected), while Subjective Norm (H2) and Perceived Behavioral Control (H3) positively and significantly influenced Green Trust. Green Trust also showed a significant positive impact on Green Purchase Intention (H4). Furthermore, Greenwashing negatively influenced Green Purchase Intention (H5), and both Subjective Norm (H6) and Perceived Behavioral Control (H7) had significant positive effects on Green Purchase Intention. Regarding indirect effects, Green Trust did not mediate the relationship between Greenwashing and Green Purchase Intention (H8 rejected), whereas it partially mediated the effects of Subjective Norm (H9) and Perceived Behavioral Control (H10) on Green Purchase Intention. These findings highlight the central role of Green Trust in mediating consumer behavioral intentions, particularly in the context of social and perceived behavioral influences.

B. Discussion

This study explored how greenwashing, subjective norm, perceived behavioral control, and green trust influence green purchase intention within the eco-friendly packaged FMCG sector in Indonesia. The findings reveal nuanced dynamics that offer valuable insights for both researchers and practitioners.

Surprisingly, greenwashing did not have a statistically significant impact on green trust, although the relationship was negatively directed. This suggests that despite potential skepticism, many consumers still place

trust in environmental claims, particularly when supported by credible visual symbols like certifications. This result echoes Tarabieh's (2021) findings in the Jordanian F&B sector but contrasts with Eversmann (2019), who found that greenwashing clearly damaged trust when consumers detected deceptive intent. These discrepancies may stem from differing levels of environmental literacy, regulatory landscapes, or cultural contexts that shape how consumers process green claims.

In contrast, subjective norm emerged as a strong predictor of green trust. Social influence, particularly from peers, professionals, and social groups, appears to play a crucial role in enhancing trust toward eco-friendly brands. This finding is in line with Xia et al. (2024) and Chan et al. (2022), who suggest that normative pressures affect both emotional and cognitive dimensions of consumer trust, regardless of the environmental product type or cultural background.

Similarly, perceived behavioral control was found to positively affect green trust. When consumers feel that they have the knowledge, financial means, and access necessary to act sustainably, they are more likely to place trust in green products and claims. This reflects Chan et al.'s (2022) observations, where consumer empowerment translated into increased trust and subsequent pro-environmental behavior.

Green trust itself proved to be a central factor in shaping purchase intentions. As observed in studies by Guerreiro & Pacheco (2021), Eversmann (2019), and Xia et al. (2024), consumers who believe in the authenticity of a brand's sustainability efforts are significantly more likely to engage in green purchasing. This relationship was especially pronounced among younger, urban, and financially stable consumers, an increasingly influential demographic in the Indonesian market.

Consistent with expectations, greenwashing had a direct and significant negative impact on green purchase intention. This aligns with the findings of Nguyen et al. (2019, 2021), highlighting that consumer mistrust triggered by deceptive environmental claims can deter purchase behavior, especially in markets where purchasing decisions are made frequently, such as FMCG. Nevertheless, mechanisms like third-party verification and clear labeling, discussed by Wang et al. (2019), may buffer against this effect by restoring consumer confidence.

The influence of subjective norm on green purchase intention was also confirmed. When consumers receive approval and encouragement from their social environment, whether through peers, communities, or opinion leaders, they are more inclined to make environmentally conscious choices. These results are consistent with research conducted in Cambodia, China, and Indonesia (e.g., Guo et al., 2021; Shang et al., 2024; Bui et al., 2021), although some studies (e.g., Lukmawan & Wulandari, 2024) suggest that this influence may weaken when normative pressure is inconsistent or lacks clarity.

Moreover, perceived behavioral control had a positive and significant effect on green purchase intention. Consumers who feel capable, financially, logistically, and cognitively, are more likely to translate intention into action. This is supported by findings across various national contexts (Saut & Saing, 2021; Ruslim et al., 2022). However, real-world barriers such as price sensitivity and limited availability may still dampen purchasing behavior, as also noted by Harjadi & Gunardi (2022) and Wang et al. (2019).

While green trust was expected to mediate the relationship between greenwashing and purchase intention, this effect was not statistically significant in the current study. Although the direction of the relationship was theoretically sound, the lack of a robust mediation effect suggests that other variables, such as perceived product value or prior brand experience, may play a more prominent role in influencing consumer decisions in the face of greenwashing. This diverges from previous findings by Eversmann (2019) and Nguyen et al. (2021), where green trust effectively mediated negative perceptions.

In contrast, green trust did mediate the relationship between subjective norm and green purchase intention, reinforcing the idea that social influence not only directs behavior but also builds the trust necessary for consumers to feel confident in their choices. This is consistent with Chan et al. (2022), Xia et al. (2024), and Guerreiro & Pacheco (2021), and highlights the layered nature of trust formation in sustainability contexts.

Finally, green trust fully mediated the effect of perceived behavioral control on green purchase intention. This finding suggests that even when consumers feel capable of acting sustainably, their decision to follow through relies heavily on whether they trust the brand's environmental claims. Without such trust, behavioral control alone may not be sufficient to drive green consumption. This outcome supports prior work by Chan et al. (2022) and underscores trust as a critical psychological mechanism that bridges perceived capability and actual intention.

IV. CONCLUSION

The findings offer several practical insights for stakeholders in the FMCG industry and policymakers. With regard to greenwashing, respondents expressed concern about misleading environmental claims,

particularly those related to packaging features. This indicates an emerging awareness among consumers about inconsistencies between sustainability claims and actual product attributes. Therefore, FMCG producers should prioritize transparency and accountability in their environmental communication. Providing verifiable and easily understood information, such as official certification labels, clear packaging descriptions, and explanations of environmental benefits, can help reduce consumer skepticism and strengthen green trust. Marketing strategies that rely on exaggerated claims without substantive backing may undermine consumer confidence and negatively affect purchase intentions.

In terms of subjective norm, the study suggests that consumers are influenced by recommendations from credible sources, including experts and professionals in environmental and sustainability fields. These authoritative voices can play a key role in shaping consumer attitudes toward environmentally friendly products. As such, it is important for producers and policymakers to actively involve experts in public communication campaigns. Partnerships with scientists, academics, and sustainability practitioners can help deliver evidence-based messages that not only inform but also reinforce the social norms around sustainable consumption. Using formal communication channels such as popular science publications, media outlets, public forums, and social campaigns can further amplify expert influence.

Regarding perceived behavioral control, the results imply that some consumers still experience limitations in terms of access to or ability to consistently purchase environmentally friendly products, often due to economic or structural constraints. This highlights the importance of affordability and accessibility as enablers of sustainable consumption. Companies are encouraged to implement inclusive pricing strategies, offer eco-friendly product options at various price points, or develop promotional mechanisms that reduce financial barriers. At the same time, public institutions and NGOs can contribute by launching incentive programs, sustainability education, and targeted campaigns that promote the idea that sustainable choices are both practical and within reach.

Lastly, while consumers generally support environmentally friendly practices, the research indicates a degree of skepticism toward the overall environmental commitment of FMCG brands. This calls for a more collective effort within the industry to build a credible and consistent sustainability image. Initiatives such as integrated industry-wide green programs, transparent reporting, cross-sector collaborations, and long-term environmental strategies can help demonstrate genuine commitment. Strengthening corporate sustainability narratives through concrete actions beyond packaging, such as improvements in production processes, distribution, and waste management, will contribute to enhancing green trust and fostering greater consumer loyalty toward environmentally responsible brands.

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