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Green Purchase Behavior in Indonesia: Eco-Brand Authenticity, Moral Norms, and Green Self-Identity

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Abstract:
Research Aims: This study examines the effects of Green Product Perceived Quality (GPQ), Eco-Brand Authenticity (EBA), and Moral Norm (MN) on Green Purchase Behavior (GPB), with Green Self-Identity (GSI) as a mediating variable among Indonesian consumers.
Design/Methodology/Approach: This study employed a quantitative cross-sectional design using data from 236 Indonesian consumers who had purchased green products within the last six months. Data analysis was conducted using Partial Least Squares–Structural Equation Modeling (PLS-SEM) with SmartPLS 4.
Research Findings: The results indicate that Eco-Brand Authenticity and Moral Norm significantly influence both Green Self-Identity and Green Purchase Behavior. In contrast, Green Product Perceived Quality does not significantly affect either Green Self-Identity or Green Purchase Behavior. Green Self-Identity partially mediates the effects of Eco-Brand Authenticity and Moral Norm on Green Purchase Behavior, but does not mediate the effect of Green Product Perceived Quality.
Theoretical Contribution/Originality: This study extends the green consumer behavior literature by highlighting the central role of green self-identity as a psychological mechanism linking moral and brand-related factors to sustainable purchasing behavior.
Practitioner/Policy Implication: The findings suggest that marketers and policymakers should strengthen eco-brand authenticity and moral engagement rather than relying solely on product quality to encourage sustainable consumption.
Research Limitation/Implication: The study is limited by its cross-sectional design and self-reported data, which may limit causal interpretation and generalizability. Future studies are encouraged to use longitudinal approaches and broader demographic coverage.

Keywords: Eco-Brand Authenticity; Green Product Quality; Green Purchase Behavior; Green Self-Identity; Moral Norm

Introduction

Sustainability has become a critical global issue, particularly in emerging economies such as Indonesia, where rapid urbanization and economic expansion intensify environmental pressures. The household level waste management practices remain suboptimal, reinforcing the need to examine behavioral factors influencing consumption and disposal patterns (Ferdinan et al., 2022). Zahrah et al. (2024) explain that increasing consumption patterns and inefficient waste management systems have significantly contributed to environmental degradation,

especially through the widespread use of single use plastics and inadequate recycling infrastructure. These conditions highlight the growing urgency to understand how consumer behavior contributes to environmental sustainability. In Indonesia itself, the amount of waste produced is approximately 65.2 million tons annually, yet the capacity for effective waste management remains limited, particularly in the recycling of plastic materials.

Governments and big corporations are now scrambling to prioritize sustainability, yet there's a persistent problem: what people say they care about doesn't always match what they actually buy. This is the infamous 'green purchasing gap.' Lopes et al. (2024) argue that green purchasing decisions are influenced by complex interactions between cognitive evaluations and psychological factors, rather than solely by environmental awareness. Wicaksari & Febriatmoko (2024) observe that environmentally friendly products such as energy efficient appliances, organic food, and reusable goods are increasingly available in the Indonesian market, reflecting a gradual shift toward sustainable consumption. However, We argue that it's not enough for brands to just slap a green label on a box. They need to prove their worth through high green product perceived quality and, more importantly, stay honest through eco-brand authenticity. Therefore, understanding the determinants of green purchase behavior requires a comprehensive approach that integrates both external product-related factors and internal psychological drivers.

One of the primary barriers to green product adoption lies in consumers' perception of product quality. Many consumers remain skeptical about whether environmentally friendly products can deliver the same level of performance as conventional alternatives. This skepticism often leads to hesitation in purchasing green products, as consumers are unwilling to compromise on functionality. Green product perceived quality, therefore, becomes a crucial determinant in influencing consumer decisions. Priyanidewi & Hadi (2025) highlight that perceived value and product quality remain critical determinants that can either facilitate or hinder green purchasing behavior in developing markets.

Beyond product quality, trust in environmental claims also plays a critical role in shaping consumer behavior. The increasing prevalence of *greenwashing*—where firms exaggerate or misrepresent their environmental efforts—has made consumers more cautious in evaluating sustainability claims. In this context, eco-brand authenticity emerges as an important factor in building consumer trust. Authentic brands are perceived as genuine, transparent, and consistent in their environmental commitments, which reduces skepticism and enhances credibility. Ramdhani & Pradisti (2025) identify consumer skepticism toward green claims as a persistent barrier, particularly in digital marketing environments where information credibility is often questioned. Similarly, Thao et al. (2025) demonstrate that eco-brand authenticity is an important determinant of consumer trust, particularly in reducing skepticism toward sustainability claims in marketing communications.

However, while eco-brand authenticity strengthens consumer trust in sustainability claims, external factors alone are insufficient to fully explain pro-environmental behavior. Consumers' decisions are not solely driven by product attributes or brand-related cues but are also shaped by internal ethical considerations. In this regard, moral norms become an essential factor in understanding environmentally responsible behavior. Kumar et al. (2023) define moral norms as individuals' perceived ethical obligations toward environmental protection, which significantly influence pro environmental behavior. Individuals who feel a strong moral

responsibility toward the environment are more likely to engage in pro-environmental behaviors, including purchasing green products. Unlike perceived quality and brand authenticity, which are externally influenced, moral norms are rooted in personal values and ethical beliefs. As such, they play a critical role in shaping consistent and responsible consumption behavior. Therefore, incorporating moral norms into the analysis offers a deeper understanding of the psychological mechanisms underlying green consumption.

In addition to moral obligations, individuals' self-perception also plays a crucial role in translating intentions into actual behavior. Green self-identity, defined as the extent to which individuals perceive themselves as environmentally responsible, has emerged as a key variable in explaining pro-environmental behavior. Becerra et al. (2023) explain that green self identity reflects an individual's perception of themselves as environmentally responsible, which influences their behavioral consistency. Pasquariello et al. (2025) further confirm that green self identity plays a mediating role between environmental attitudes and actual behavior, strengthening the link between intention and action. This suggests that individuals are more likely to engage in green purchasing when such behavior aligns with their identity as environmentally responsible consumers.

Based on these conditions, this study identifies three key research gaps. First, although awareness of environmental issues is increasing, it has not consistently translated into actual green purchasing behavior. Second, ongoing challenges in waste management highlight the importance of understanding consumer level decision making in achieving sustainability goals. Third, despite the growing availability of environmentally friendly products, the psychological mechanisms underlying consumer choices remain insufficiently explored.

Therefore, this study aims to examine the influence of green product perceived quality, eco brand authenticity, and moral norm on green purchase behavior, with green self identity as a mediating variable. Kumar et al. (2023) and Silintowe and Sukresna (2022) suggest that incorporating identity based constructs into behavioral models can provide a more comprehensive explanation of environmentally responsible behavior (Kumar et al., 2023; Silintowe & Sukresna, 2022). The findings of this study are expected to contribute to the advancement of green consumer behavior literature and provide practical implications for businesses and policymakers in developing more effective sustainability strategies.

Literature Review and Hypotheses Development

Green Purchase Behavior (GPB)

Green purchase behavior refers to the comprehensive process and set of actions taken by consumers who are consciously motivated by environmental concerns when acquiring goods and services (Jhawar et al., 2023; Lopes et al., 2024). This behavior is fundamentally driven by an individual's awareness of environmental issues and a desire to minimize their personal ecological footprint through their consumption choices (Ferdinan et al., 2022; Zahrah et al., 2024). It is a tangible expression of environmental responsibility, translating concern into a direct market action (White et al., 2023). This behavior is not limited to the single moment of purchase; it encompasses the entire consumption cycle (Lopes et al., 2024). It includes the pre-purchase phase, where consumers actively seek information about a product's sustainability, read eco-labels, and research a company's reputation (Ramdhani & Pradisti, 2025). It also

extends to the post-purchase phase, which involves the efficient use of the product (like conserving energy) and its responsible disposal, such as recycling or composting (Ferdinan et al., 2022; Zahrah et al., 2024).

The practical manifestation of this behavior involves a clear pattern of selection and avoidance (White et al., 2023). Consumers actively choose products that possess specific eco-friendly attributes, such as those made from recycled content, organic materials, or those that are certified as biodegradable (Wicaksari & Febriatmoko, 2024). They also prioritize items that offer efficiency, like energy-saving appliances or water-saving fixtures, and support products with minimal or sustainable packaging (Ferdinan et al., 2022). Conversely, green purchasing involves consciously avoiding products deemed harmful, such as those containing hazardous chemicals, items tested on animals, or single-use plastics (Zahrah et al., 2024). This behavior also signifies a deeper engagement with the market, where consumers support brands that demonstrate genuine, authentic commitments to sustainability and actively reject those perceived to be "greenwashing," or making false environmental claims (Thao et al., 2025; Uikey & Baber, 2023).

Green Product Perceived Quality (GPQ)

Green product perceived quality (GPQ) refers to consumers' subjective evaluation of a product's overall excellence, encompassing both functional performance and environmental attributes such as sustainability, energy efficiency, and recyclability (Kayubiyanto et al., 2024; Chen & Chang, 2022). While product quality is traditionally viewed as a functional attribute, in the context of green consumption it also carries symbolic significance. High green perceived product quality not only reduces performance-related uncertainty but also legitimizes the integration of green consumption into the self-concept. From a self-signaling perspective, choosing high-quality green products serves as a credible signal of environmental responsibility, which individuals internalize as part of their identity. Over time, this process reinforces green self-identity as consumers align their self-perception with their consumption choices. Empirical studies suggest that consumers' perceptions of product-related value play a crucial role in shaping green self-identity. Prior research indicates that functional aspects of green products, including perceived quality, contribute to perceived value, which is closely associated with the development of self-identity (Reed et al., 2022; Salsabila & Hartono, 2023). Furthermore, positive evaluations of environmentally friendly consumption strengthen individuals' self-perception as responsible consumers, thereby reinforcing green self-identity (Kumar et al., 2022). Therefore, when green products are perceived as high-quality and valuable, consumers are more likely to internalize such consumption into their identity. Given the literature investigated, we hypothesise the following:

H1a: *Green product quality positively influences green self-identity.*

As an extension of traditional quality perception, GPQ plays a crucial role in reducing perceived risk and uncertainty, particularly when consumers question the effectiveness or credibility of green products (Priyanidewi & Hadi, 2025). A favorable perception of quality enhances consumer confidence and trust, reinforcing the belief that environmentally friendly products do not require a sacrifice in performance (Hadi, 2025). In this sense, GPQ contributes to consumers' cognitive evaluation by shaping expectations and perceived value, ultimately fostering more favorable attitudes toward sustainable consumption (Wicaksari & Febriatmoko, 2024). Empirical evidence consistently demonstrates that GPQ is a key driver in the green purchasing process, influencing behavior through multiple psychological pathways. Rather than

exerting only a direct effect, perceived quality often operates indirectly by enhancing green trust, satisfaction, and perceived value, which collectively strengthen purchase intentions (Priyanidewi & Hadi, 2025; Becerra et al., 2023). Moreover, the effect of GPQ can be amplified by individual factors such as environmental concern, where consumers with stronger ecological awareness are more responsive to quality perceptions (Lopes et al., 2024). Importantly, GPQ not only facilitates the formation of purchase intention but also helps translate intention into actual buying behavior. Its influence extends beyond initial purchase decisions, as higher perceived quality has been shown to encourage repurchase intention, indicating its long-term role in sustaining green consumer behavior (Wicaksari & Febriatmoko, 2024; Hadi, 2025). Grounded in the theoretical and empirical literature, the following hypotheses are formulated as follow:

H1b: *Green product quality positively influences green purchase behavior.*

Eco-Brand Authenticity (EBA)

EBA is defined as consumers' perception that a brand genuinely adheres to environmental values through consistent, transparent, and credible practices (Thao et al., 2025). This construct emphasizes the congruence between communicated environmental claims and actual corporate behavior, thereby distinguishing authentic sustainability efforts from symbolic or misleading practices (Ramdhani & Pradisti, 2025). By reinforcing perceptions of sincerity and integrity, authenticity strengthens consumer trust and enhances the credibility of environmental claims (Erliani & Rinuastuti, 2025). Beyond its role in building trust, eco-brand authenticity also contributes to consumers' self-perception. When individuals perceive a brand as genuinely committed to environmental values, they are more likely to internalize these values and align them with their own self-concept. In this sense, authenticity serves as a symbolic cue that enables consumers to express and reinforce their identity as environmentally responsible individuals. Therefore, the following hypothesis is proposed:

*H2a****: Eco-brand authenticity positively influences green self-identity.***

In addition to shaping identity, eco-brand authenticity plays a pivotal role in influencing green purchase behavior. As a key mechanism for reducing consumer skepticism—particularly in the context of increasing greenwashing—authenticity enhances the credibility of environmental claims and strengthens consumer trust (Uikey & Baber, 2023; Ramdhani & Pradisti, 2025). Empirical studies consistently show that perceived brand authenticity has a significant positive effect on green purchase intention and subsequent behavior, primarily through the mediating role of trust (Thao et al., 2025). In many cases, the direct effect of eco-brand authenticity on purchase intention becomes significant only when trust is established, highlighting its indirect but crucial influence (Erliani & Rinuastuti, 2025). Furthermore, authenticity contributes to a positive green brand image, which further reinforces trust and purchase intention (Kayubiyanto et al., 2024). Conversely, the absence of authenticity—manifested in perceived greenwashing—can significantly weaken purchase intention, particularly among consumers who are highly sensitive to misleading environmental claims (Ramdhani & Pradisti, 2025). Therefore, the following hypothesis is proposed:

*H2b****: Eco-brand authenticity positively influences green purchase behavior.***

Moral Norm (MN)

MN refer to an individual's internalized ethical obligation to engage in environmentally responsible behavior based on personal values and moral standards (Kumar et al., 2023). This

construct represents an intrinsic motivational force that operates independently of external pressures, guiding individuals to act in accordance with their ethical beliefs (Pasquariello et al., 2025). Moral norms activate a sense of personal responsibility toward environmental protection and function as an internal regulatory mechanism that shapes consistent decision-making (Du & Jiang, 2025; White et al., 2023). Beyond influencing behavior, moral norms also play a crucial role in shaping self-perception. When individuals consistently evaluate their actions through a moral lens, they are more likely to internalize these values as part of their identity. In this sense, moral norms contribute to the formation of green self-identity by reinforcing the perception of oneself as an environmentally responsible individual. This perspective aligns with the view that environmentally responsible behavior is not solely driven by external pressures but also by internalized values that define one's self-concept. Therefore, the following hypothesis is proposed:

H3a: Moral norms positively influence green self-identity.

In addition to shaping identity, moral norms have been widely recognized as a significant driver of green purchase behavior. As an internalized sense of ethical obligation, moral norms translate abstract environmental values into concrete actions, thereby directly influencing purchasing decisions (Jhawar et al., 2023). Within the framework of the Norm Activation Model (NAM), moral norms act as a central psychological mechanism that links environmental beliefs and concerns to actual behavior. Empirical studies show that factors such as environmental concern and personal values often influence behavior indirectly by activating personal norms, which then become a strong determinant of environmentally responsible purchasing (Oetomo et al., 2025). Once this sense of moral obligation is engaged, individuals are more likely to act in ways that are consistent with their ethical standards, including purchasing green products. Although prior studies emphasize moral obligation as a key driver, this study further argues that in the context of modern consumption, such moral considerations may also operate through more internalized mechanisms, including identity formation. Nevertheless, moral norms remain a direct and powerful predictor of green purchase behavior. Therefore, the following hypothesis is proposed:

H3b: Moral norms positively influence green purchase behavior.

Green Self-Identity (GSI)

GSI refers to the extent to which individuals perceive themselves as environmentally responsible consumers and integrate sustainability values into their self-concept (Becerra et al., 2023; Confente et al., 2022). As an internalization of pro-environmental values, GSI fosters behavioral consistency by motivating individuals to act in ways that are congruent with their self-perception (Mahasuweerachai & Suttikun, 2022). In this sense, it functions as a psychological mechanism that bridges internal values and observable behavior, reinforcing sustainable consumption patterns and strengthening individuals' commitment to environmental actions (Silintowe & Sukresna, 2022; Pasquariello et al., 2025). Therefore, green self-identity serves as a central construct in explaining the persistence of pro-environmental consumption behavior.

Empirical evidence consistently identifies GSI as a strong determinant of green purchase behavior. It has been shown to positively influence both purchase intentions and broader pro-environmental actions, either directly or through underlying psychological mechanisms (Becerra et al., 2023; Kumar et al., 2023; Pasquariello et al., 2025). For instance, GSI can shape behavioral intention by influencing key components of the Theory of Planned Behavior, including attitude, subjective norms, and perceived behavioral control (Du & Jiang, 2025). It also generates affective responses, such as a "warm glow," which further strengthens

individuals' willingness to engage in sustainable consumption (Mahasuweerachai & Suttikun, 2022). Moreover, GSI has been found to enhance the translation of positive attitudes into actual behavior, acting as a reinforcing mechanism in the decision-making process (Kumar et al., 2023). Although some studies suggest that situational barriers, such as price and product availability, may weaken this relationship, the overall body of literature supports a positive and significant influence of green self-identity on behavior. Therefore, the following hypothesis is proposed:

H4: Green self-identity positively influences green purchase behavior.

The Mediating Role of Green Self-identity

Building on the preceding discussion, GSI is positioned as a mediating variable linking GPQ, EBA, and MN to GPB). While these antecedents shape consumers' evaluations, trust, and moral considerations, their influence does not always translate directly into behavior. Instead, these factors are internalized into the self-concept, forming a sense of identity that reflects environmental responsibility.

Specifically, perceived product quality enhances consumers' confidence in the functional and environmental value of green products, eco-brand authenticity strengthens trust in the credibility of sustainability claims, and moral norms activate a sense of ethical obligation toward environmental protection. These influences collectively shape how individuals perceive themselves, reinforcing a self-concept aligned with environmentally responsible consumption. As a result, GSI functions as a psychological mechanism that bridges cognitive evaluations and moral motivations with actual purchasing behavior.

Through this internalization process, the effects of GPQ, EBA, and MN on GPB are partially mediated by the extent to which consumers incorporate these influences into their identity. This mediating role is supported by prior studies showing that identity plays a crucial role in translating environmental values, perceptions, and attitudes into consistent behavior (Silintowe & Sukresna, 2022; Uikey & Baber, 2023; Becerra et al., 2023). By positioning GSI as a mediator, this study provides a more comprehensive explanation of how external and internal factors are transformed into environmentally responsible consumption behavior. Finally, given the abovementioned referenced literature, this relationship has been hypothesised as follows:

H5a: *green self-identity partially mediates the positive effect of green product perceived quality on green purchase behavior.*

H5b: *green self-identity partially mediates the positive effect of eco-brand authenticity on green purchase behavior.*

H5c: *green self-identity partially mediates the positive effect of moral norm on green purchase behavior.*

The hypothesised model, including all proposed relationships, is illustrated in Figure 1.

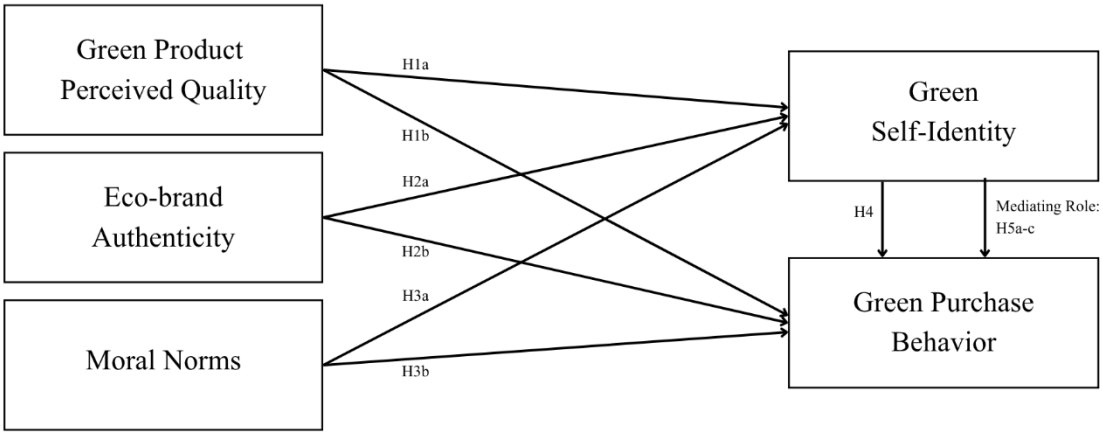

Figure 1. Hypothesised Model

Research Method

Research Design

This study employs a quantitative research design to examine the relationships between green product perceived quality, eco-brand authenticity, moral norms, green self-identity, and green purchase behavior. A cross-sectional approach is adopted, where data are collected at a single point in time to capture consumers' perceptions and behaviors regarding green products. Although this design allows efficient data collection, it limits the ability to infer causal relationships and does not capture potential changes in behavior over time.

Population and Sample

The target population consists of consumers in Indonesia who have experience purchasing green products. The sample was selected using purposive sampling with the following criteria: (1) individuals aged 18–55 years, (2) residing in urban areas, and (3) having purchased environmentally friendly products within the past six months. A total of 236 valid responses were obtained, which is considered sufficient for PLS-SEM analysis. However, as purposive sampling is a non-probability technique, the findings may have limited generalizability beyond the selected group of environmentally conscious consumers.

Operational Definition and Measurement of Variables

This study examines five main constructs: green product perceived quality (GPQ), eco-brand authenticity (EBA), moral norms (MN), green self-identity (GSI), and green purchase behavior (GPB). Green product perceived quality is operationally defined as consumers' evaluation of the overall environmental and functional excellence of a product, including durability, effectiveness, and eco-friendly attributes, measured using items adapted from Priyanidewi and Hadi (2025) and Kayubiyanto et al. (2024). Eco-brand authenticity refers to consumers' perception of the genuineness, transparency, and consistency of a brand's environmental claims and practices, measured using scales adapted from Thao et al. (2025) and Uikey and Baber (2023). Moral norms are defined as the individual's internalized sense of moral obligation to engage in environmentally responsible behavior, measured using items adapted from Kumar et al. (2023) and Du and Jiang (2025). Green self-identity refers to the extent to which individuals perceive themselves as environmentally responsible consumers, measured using scales adapted from Becerra et al. (2023) and Silintowe and Sukresna (2022). Green purchase behavior is

defined as the actual behavior of purchasing environmentally friendly products as part of sustainable consumption practices, measured using items adapted from Jhawar et al. (2023) and Lopes et al. (2024). All variables were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with slight modifications to ensure contextual relevance.

Data Collection Technique and Instrument

Data were collected using a structured questionnaire distributed online to respondents who met the predefined criteria. The questionnaire consisted of two main sections: demographic information and measurement items for each construct. While this method enables efficient data collection, it may introduce response bias due to self-reported measures.

Data Analysis Techniques

Data analysis was conducted using Structural Equation Modeling (SEM) with SmartPLS 4. The analysis includes descriptive statistics, reliability testing (Cronbach's alpha and composite reliability), and validity assessment (convergent and discriminant validity). Bootstrapping procedures were applied to evaluate the significance of both direct and indirect (mediating) relationships. This method is suitable for analyzing complex relationships among latent variables with relatively small to medium sample sizes, ensuring a systematic and robust evaluation of the proposed research model.

Result and Discussion

Demographic Characteristic of Respondents

Table 1 presents the demographic profile of the respondents. The majority of participants were female (66.9%), while male respondents accounted for 33.1**%** of the sample. Regarding age, most respondents were under 20 years old (55.9**%)**, followed by those aged 20–25 years (27.5**%**) and over 25 years (16.5**%)**. In terms of income, a large proportion of respondents earned less than IDR 2,000,000 per month (78.4**%**), while smaller segments reported incomes between IDR 2,000,000–4,000,000 (8.5**%**), IDR 4,000,000–6,000,000 (4.2**%)**, and above IDR 6,000,000 (9.9**%**).

Table 1. Demographic Characteristic of Respondents

No	Demographic Characteristics	Total	Percentage
1	Gender		
	Male	78	33,1
	Female	158	66,9
2	Age		
	< 20	132	55,9
	20 - 25	65	27,5
	> 25	39	16,5
	Income		
3	< IDR 2,000,000	185	78,4
	IDR 2,000,000 – 4,000,000	20	8,5
	IDR 4,000.000 – 6,000.000	10	4,2
	> IDR 6,000,000	21	9,9

Source: Data processed by authors (2025)

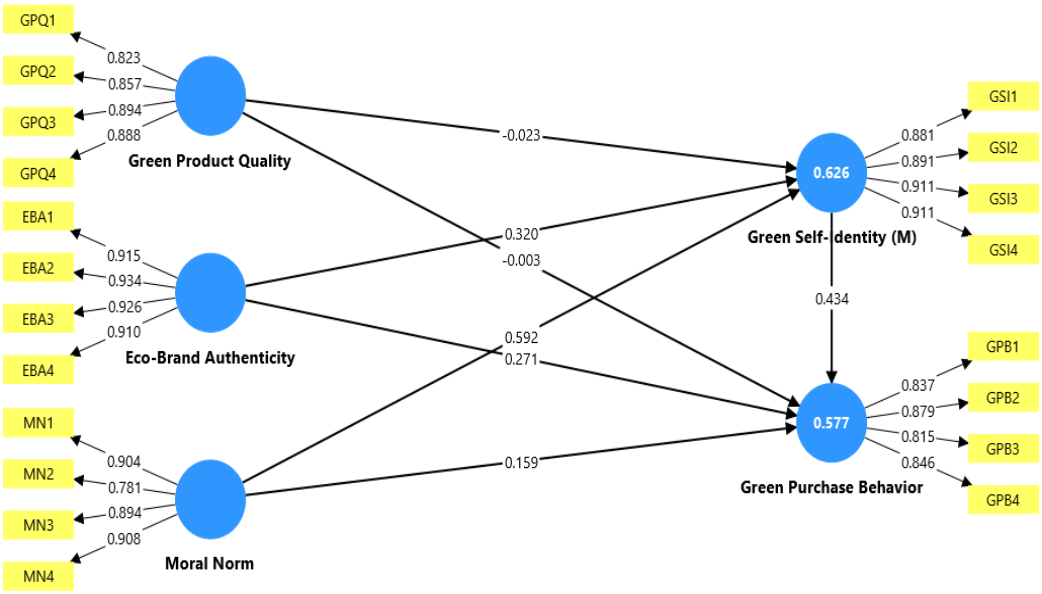

Figure 2. Outer Model Evaluation
Source: Processed by the author using SmartPLS 4 (2025)

This section presents the analysis of the measurement model, which aims to assess the degree of accuracy and adequacy of the constructs. The structural model, on the other hand, is utilized to evaluate how well the model explains the relationships among variables. The measurement model was evaluated by examining the Composite Reliability (CR), Average Variance Extracted (AVE), the significance of factor loadings (FL), and discriminant validity. In this study, convergent validity was assessed using FL, AVE, CR, and Cronbach's Alpha values. According to Hair et al. (2014), good convergent validity is indicated by FL and AVE values greater than 0.5, while CR and Cronbach's Alpha values exceeding 0.7 are considered acceptable to confirm reliability and validity (Hair et al., 2014; Bagozzi & Yi, 1988). The findings displayed in Table 3 show that all constructs achieved CR and Cronbach's Alpha values above 0.70, as well as FL and AVE values higher than 0.50. Thus, it can be concluded that all constructs in this research satisfy the recommended criteria for convergent validity.

Table 2. Validity and Reliability Test

Construct	Loading	AVE	CR	Alpha
Green Product Quality (GPQ)		0.750	0.923	0.889
GPQ1	0.823			
GPQ2	0.857			
GPQ3	0.894			
GPQ4	0.888			
Eco-Brand Authenticity (EBA)		0.848	0.957	0.940
EBA1	0.915			
EBA2	0.934			
EBA3	0.926			
EBA4	0.910			
Moral Norm (MN)		0.763	0.928	0.895
MN1	0.904			
MN2	0.781			
MN3	0.894			
MN4	0.908			
Green Self-Identity (GSI)		0.808	0.944	0.921
GSI1	0.881			

Construct	Loading	AVE	CR	Alpha
GSI2	0.891			
GSI3	0.911			
GSI4	0.911			
Green Purchase Behavior (GPB)		0.713	0.908	0.866
GPB1	0.837			
GPB2	0.879			
GPB3	0.815			
GPB4	0.846			

Source: Data processed by authors (2025)

After determining the FL, AVE, CR, and Cronbach's Alpha values, the next step is to assess the discriminant validity of the constructs. Based on the results of the Heterotrait-Monotrait Ratio (HTMT) analysis presented in the table above, all correlation values between constructs are below the recommended threshold of 0.90 (Henseler et al., 2015). The highest HTMT value is observed between Green Product Quality and Moral Norm (0.692), while the lowest is between Eco-Brand Authenticity and Moral Norm (0.573). As all HTMT values are below the 0.90 cutoff, this indicates that each construct demonstrates satisfactory discriminant validity and represents a distinct empirical concept. Therefore, it can be concluded that the measurement model in this study fulfills the discriminant validity criteria, confirming that each latent variable is unique and does not overlap with others.

Table 3. HTMT

	EBA	GPQ	GPB	GSI	MN
Eco-Brand Authenticity					
Green Product Quality	0.806				
Green Purchase Behavior	0.686	0.622			
Green Self-Identity (M)	0.660	0.638	0.803		
Moral Norm	0.573	0.692	0.707	0.815	

Source: Data processed by authors (2025)

Inner Model Evaluation

The evaluation of the inner model aims to examine the relationships among latent constructs that form the study's structural or theoretical framework. This process involves several key components, including the analysis of path coefficients to identify the significance and strength of the hypothesized relationships, the coefficient of determination (R^2) to measure the model's explanatory capability, and predictive relevance (Q^2) to assess how well the model predicts the endogenous variables. Moreover, the effect size (f^2) is evaluated to determine the relative influence of each exogenous construct on the endogenous ones, while the standardized root mean square residual (SRMR) can be used to test the overall model fit. Together, these assessments ensure that the proposed theoretical relationships are empirically valid, robust, and meaningful.

Based on the results of the R-square analysis, the variable Green Self-Identity (M) has an R-square value of 0.626, indicating that 62.6% of the variance in Green Self-Identity is explained by Green Product Quality, Eco-Brand Authenticity, and Moral Norm. Meanwhile, the Green Purchase Behavior (Y) variable shows an R-square value of 0.577, meaning that 57.7% of the variance in green purchase behavior is explained by Green Product Quality, Eco-Brand Authenticity, Moral Norm, and the mediating variable Green Self-Identity. According to Hair

et al. (2014), R-square values ranging from 0.50 to 0.75 indicate a moderate level of explanatory power, suggesting that the research model demonstrates a reasonably strong ability to explain the dependent variables. Therefore, the relationships among variables in this model can be considered empirically relevant in explaining consumers' green purchasing behavior.

Table 4. R-square

	R-square	R-square adjusted
Green Purchase Behavior	0.577	0.570
Green Self-Identity (M)	0.626	0.621

Source: Data processed by authors (2025)

After determining the R^2 values, it is also necessary to examine the f-square results presented in the table under this section. The contribution of each exogenous variable to the endogenous variables varies in terms of effect size. The f^2 value of 0.559 between Moral Norm and Green Self-Identity indicates a large effect, suggesting that Moral Norm plays a dominant role in shaping individuals' green self-identity. Meanwhile, the f^2 value of 0.167 between Green Self-Identity and Green Purchase Behavior reflects a medium effect, implying that green self-identity makes a meaningful contribution to green purchasing behavior. The f^2 values of 0.123 and 0.070 from Eco-Brand Authenticity toward Green Self-Identity and Green Purchase Behavior, respectively, demonstrate small effects, while Green Product Quality exhibits very small or negligible effects (0.000–0.001), indicating an insignificant influence. According to Cohen's (2013) guidelines, these findings suggest that Moral Norm is the strongest predictor in the model, followed by Green Self-Identity, whereas Eco-Brand Authenticity and Green Product Quality exert relatively limited effects on the dependent variables.

Table 5. F-square

	Green Purchase Behavior	Green Self-Identity (M)
Eco-Brand Authenticity	0.070	0.123
Green Product Quality	0.000	0.001
Green Purchase Behavior		
Green Self-Identity (M)	0.167	
Moral Norm	0.023	0.559

Source: Data processed by authors (2025)

After determining the f-square values, it is also essential to examine the Q^2predict values to evaluate the predictive relevance of the structural model. The results indicate that the Q^2predict values for Green Purchase Behavior and Green Self-Identity are 0.484 and 0.611, respectively. According to Hair et al. (2014), a Q^2 value greater than zero demonstrates that the model has predictive relevance, while higher values reflect stronger predictive capability. These findings suggest that the model exhibits substantial predictive power, particularly for Green Self-Identity, which has the higher Q^2predict value. Furthermore, the Root Mean Square Error (RMSE) and Mean Absolute Error (MAE) values, ranging from 0.493 to 0.728, fall within acceptable thresholds, indicating that the model's prediction errors are relatively small. Therefore, it can be concluded that the structural model not only provides a good representation of the data but also possesses strong predictive accuracy in explaining the endogenous constructs.

Table 6. Q2

	Q^2predict	RMSE	MAE
Green Purchase Behavior	0.484	0.728	0.564
Green Self-Identity (M)	0.611	0.630	0.493

Source: Data processed by authors (2025)

The final step in the inner model evaluation is the assessment of the Standardized Root Mean Square Residual (SRMR), which is an important indicator for determining the overall goodness of fit of the structural model. SRMR measures the difference between the observed correlations and those predicted by the model, thereby indicating how well the theoretical structure represents the empirical data. The results show that both the saturated model and the estimated model have an SRMR value of 0.056. SRMR value below 0.08 indicates a good model fit, suggesting that the discrepancies between the observed and predicted correlations are minimal. Hence, the SRMR value obtained in this study confirms that the structural model demonstrates a satisfactory fit with the data, meaning that the proposed theoretical relationships among constructs are well represented and empirically supported.

Table 7. SRMR

	Saturated model	**Estimated model**
SRMR	0.056	0.056

Source: Data processed by authors (2025)

Path Coefficient

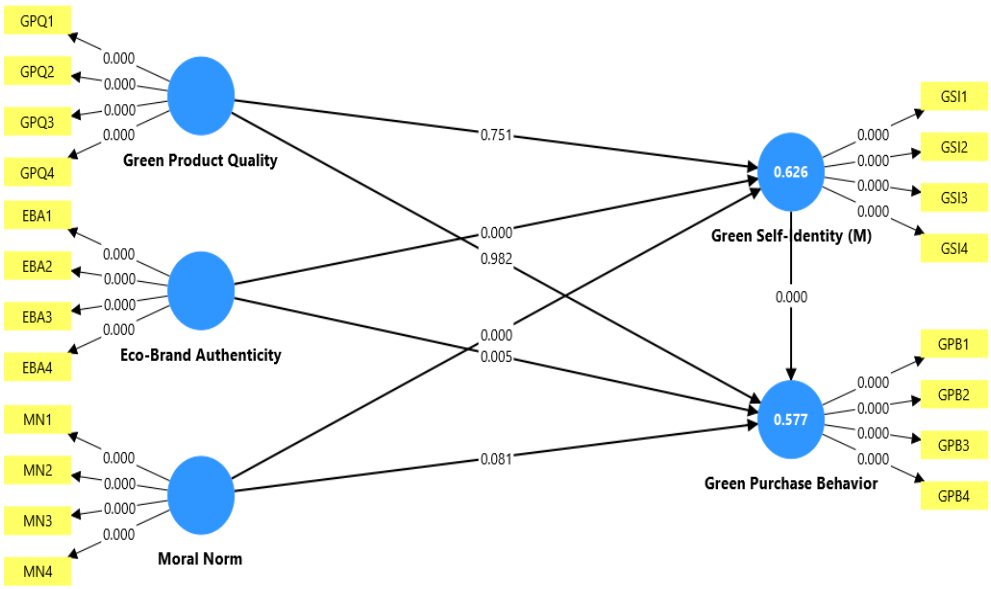

Figure 3. Path Coefficient

Source: Processed by the author using SmartPLS 4 (2025)

Based on the path coefficient results, four out of seven direct relationships were found to be statistically significant, while the remaining three were not. EBA showed a positive and significant effect on both GPB (β = 0.271, p = 0.005) and GSI (M) (β = 0.320, p = 0.000). This indicates that when consumers perceive an eco-brand as authentic, they are more likely to both internalize a green self-concept and engage in environmentally friendly purchasing behavior. This result is consistent with prior research demonstrating that authenticity enhances consumer trust and reduces skepticism toward environmental claims (Thao et al., 2025; Uikey & Baber, 2023). In contrast to GPQ, authenticity operates not only at a functional level but also at a symbolic level, enabling consumers to connect brand values with their personal identity. This explains its dual impact on both behavioral outcomes and identity formation. While some studies suggest that the effect of authenticity is primarily indirect through trust (Erliani & Rinuastuti, 2025), the current findings indicate that authenticity can also exert a more direct influence on behavior. This may reflect increasing consumer sensitivity toward transparency and credibility in sustainability claims, particularly in contexts where greenwashing is prevalent. Furthermore, the significant relationship with GSI suggests that authentic brands serve as a resource for self-expression, allowing consumers to affirm their environmental values through consumption choices. Therefore, EBA emerges as a more comprehensive driver of green behavior, combining both relational and identity-based influences.

GPQ exhibited non-significant effects on both GPB (β = –0.003, p = 0.982) and GSI (M) (β = –0.023, p = 0.751), suggesting that perceived product quality does not play a meaningful role in shaping consumers' green self-identity or purchase behavior. This result diverges from prior studies that identify GPQ as an important determinant of green purchasing, particularly in enhancing perceived value and encouraging purchase intentions (Priyanidewi & Hadi, 2025; Kayubiyanto et al., 2024). However, the present findings are consistent with broader sustainability research suggesting that cognitive product evaluations alone are often insufficient to drive actual behavior when situational barriers are present (White et al., 2023). This implies that while consumers may recognize the quality of green products, such evaluations do not

necessarily translate into identity formation or behavioral commitment. One plausible interpretation is that GPQ functions as a baseline expectation rather than a differentiating factor, especially in markets where consumers already assume a minimum standard of product performance. In addition, the non-significant relationship with GSI suggests that identity formation is not primarily shaped by product attributes, but rather by deeper psychological, social, or value-based mechanisms. This finding highlights the limitation of relying solely on product-centered strategies and suggests that enhancing perceived quality without addressing psychological drivers may not be sufficient to influence sustainable consumption.

MN, on the other hand, had a non-significant direct effect on GPB ($\beta = 0.159$, $p = 0.081$), yet a positive and significant influence on GSI (M) ($\beta = 0.592$, $p = 0.000$). This suggests that MN primarily strengGPBthen one's sense of GSI rather than directly influencing purchase intentions or behaviors. In summary, these findings confirm that GSI functions as a mediating variable, bridging the effects of EBA and MN on GPB. While authenticity and moral values foster internal motivation toward pro-environmental behavior through identity formation, the perceived quality of green products does not significantly contribute to this behavioral process. It providing support for H3a and partial support for H3b. This finding aligns with prior studies emphasizing the role of moral norms in shaping pro-environmental identity (Kumar et al., 2023), while also reflecting the widely documented "value–action gap" in sustainable consumption (White et al., 2023). The results suggest that individuals internalize moral obligations at the psychological level, which strengthens their identity as environmentally responsible consumers. However, this internalization does not consistently translate into actual purchasing behavior, indicating that additional factors influence the transition from intention to action. This is consistent with international findings showing that moral drivers often require supporting mechanisms, such as identity or contextual facilitators, to produce behavioral outcomes (Pasquariello et al., 2025). The limited direct effect on GPB indicates that ethical motivation alone may be insufficient to overcome practical constraints such as price, accessibility, or convenience. These findings highlight the importance of integrating moral appeals with practical enablers to effectively promote green consumption.

Furthermore, GSI (M) demonstrated a positive and significant influence on GPB ($\beta = 0.434$, $p = 0.000$), highlighting its central role in translating psychological identification with environmental values into tangible pro-environmental actions. This finding is consistent with prior research demonstrating that individuals are more likely to engage in behaviors that align with their self-concept (Becerra et al., 2023; Mahasuweerachai & Suttikun, 2022).

Table 8. Path Coefficient

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
H1a	GPQ -> GSI (M)	-0.023	-0.020	0.072	0.317	0.751
H1b	GPQ -> GPB	-0.003	-0.015	0.123	0.022	0.982
H2a	EBA -> GSI (M)	0.320	0.322	0.066	4.834	0.000
H2b	EBA -> GPB	0.271	0.284	0.096	2.829	0.005
H3a	MN -> GSI (M)	0.592	0.586	0.065	9.166	0.000
H3b	MN -> GPB	0.159	0.157	0.091	1.746	0.081
H4	GSI (M) -> GPB	0.434	0.438	0.086	5.054	0.000

Source: Data processed by authors (2025)

The results of the specific indirect effects analysis confirm that GSI (M) plays a significant mediating role between moral and brand-related factors and GPB. The indirect effect of MN on GPB through GSI (M) is positive and significant (β = 0.257, t = 3.929, p = 0.000), indicating that individuals with stronger moral principles tend to develop a stronger GSI, which subsequently encourages pro-environmental purchasing actions. Likewise, EBA exerts a positive and significant indirect influence (β = 0.139, t = 3.498, p = 0.000), suggesting that when consumers perceive a brand as authentic, it enhances their identification with environmentally friendly values and indirectly drives GPB.
In contrast, GPQ shows a non-significant indirect effect on GPB through GSI (M) (β = –0.010, t = 0.304, p = 0.761). This result implies that GPQ does not substantially contribute to the development of a green self-concept or to the indirect GPB. Overall, the findings emphasize that GSI serves as a psychological mechanism through which MN and EBA translate into green consumer behavior, while product quality remains a relatively minor factor in this indirect relationship.

Table 9. Indirect Effect

		Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
H5a	GPQ -> GSI (M) -> GPB	-0.010	-0.010	0.033	0.304	0.761
H5b	EBA -> GSI (M) -> GPB	0.139	0.141	0.040	3.498	0.000
H5c	MN -> GSI (M) -> GPB	0.257	0.259	0.065	3.929	0.000

Source: Data processed by authors (2025)

Furthermore, the mediation analysis reveals that GSI partially mediates the relationships between eco-brand authenticity (EBA), moral norms (MN), and GPB, indicating that both relational and moral factors influence behavior through identity formation. This finding supports the view that identity functions as a key psychological mechanism linking external perceptions and internal values to behavioral outcomes. However, the absence of mediation in the relationship between GPQ and GPB suggests that cognitive product evaluations are less effective in shaping identity-based behavior. This highlights a distinction between different types of drivers, where identity is more strongly influenced by symbolic and moral factors than by functional attributes. From a theoretical perspective, these findings contribute to a more integrated understanding of green consumption by emphasizing the role of identity as a unifying mechanism. Overall, GSI emerges as a critical factor that determines whether environmental values and perceptions are translated into consistent purchasing behavior.

Conclusion

This study demonstrates that EBA and MN are key drivers of GPB, primarily through their influence on GSI. In contrast, GPQ does not significantly contribute to either identity formation or purchasing behavior, indicating that functional product attributes alone are insufficient to motivate sustainable consumption. The findings highlight that consumers' behavioral responses are more strongly shaped by identity-related and normative factors than by cognitive product evaluations. By confirming the mediating role of GSI in the relationships between EBA, MN, and GPB, this study provides evidence that sustainable behavior is largely driven by how individuals internalize environmental values into their self-concept.
From a theoretical perspective, this study contributes by offering a more integrated explanation of green consumption behavior, emphasizing identity as a central mechanism that connects moral and relational drivers to actual behavior. This shifts the focus from traditional product-based explanations toward a more psychologically grounded understanding of sustainability.

From a practical standpoint, the findings suggest that firms should prioritize building authentic environmental positioning and reinforcing ethical engagement rather than relying solely on product quality improvements. In parallel, policymakers and educators should focus on strengthening consumers' environmental self-concept to encourage more consistent pro-environmental behavior. Overall, this study advances the understanding of sustainable consumption by highlighting the critical role of identity in translating environmental values into action.

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AUTHOR CONTRIBUTIONS

Conceptualization, Julina; Methodology, Julina and Qonitah Rifda Zahirah; Investigation, Julina, Fakhrurrozi, and Nana Sari; Analysis, Qonitah Rifda Zahirah; Original draft preparation, Fakhrurrozi and Nana Sari; Review and editing, Julina and Qonitah Rifda Zahirah; Visualization, Qonitah Rifda Zahirah; Supervision, Julina; Project administration, Julina. Funding acquisition: Not applicable.

CONFLICTS OF INTEREST

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.