

Green Consumer Behavior in Fast Fashion: A Value Belief Norm Perspective from Semi-Rural Consumers

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Abstract

This study investigates the determinants of Green Consumer Behavior (GCB) in the fast fashion industry among semi-rural consumers by applying the Value Belief Norm (VBN) theory. Using a causal quantitative design, data were collected through online questionnaires from 225 environmentally conscious yet fashion-impulsive consumers and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that Consumer Environmental Responsibility ($\beta=0.329$, $p < 0.001$), Perceived Value ($\beta=0.148$, $p=0.003$), Environmental Knowledge ($\beta=0.098$, $p=0.046$), and Environmental Concern ($\beta=0.426$, $p < 0.001$) significantly influence Green Consumer Behavior. Environmental Concern significantly mediates the effects of Consumer Environmental Responsibility and Perceived Value but does not mediate the influence of Environmental Knowledge. The proposed model explains 55.4% of the variance in Green Consumer Behavior ($R^2=0.554$), indicating moderate explanatory power. Practically, the findings suggest that policymakers and fashion businesses should strengthen consumers' environmental responsibility and communicate the tangible value of sustainable products through transparent sustainability initiatives and targeted environmental education, particularly in semi-rural communities. The study is limited by its cross-sectional design and focus on semi-rural consumers, suggesting that future studies should employ longitudinal approaches and broader geographical coverage.

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1. Introduction

In the modern business era, companies increasingly prioritize sustainable practices alongside profitability in response to growing environmental concerns (Pudjianta et al., 2024). This shift has encouraged consumers to prefer environmentally friendly products (Agrawal et al., 2023), prompting businesses to adopt green marketing strategies. Globally, 66% of consumers are willing to choose products with environmental claims, even at premium prices. Despite its growing adoption, green marketing is often undermined by greenwashing, where companies exaggerate or misrepresent their environmental commitment (Aryoso et al., 2023). In Indonesia, this problem is intensified by consumers' limited ability to identify misleading or incomplete environmental information, making them more vulnerable to greenwashing practices (Irawati et al., 2023).

Among various business sectors, the fast fashion industry holds substantial potential for engaging in greenwashing. This sector has witnessed rapid growth both nationally and globally. In 2022, the global fast fashion market was valued at approximately \$106 billion and is projected to reach \$185 billion by 2027 (Chen, 2024). Despite this growth, the fast fashion industry significantly contributes to environmental degradation, especially through the generation of textile waste. It is estimated that this industry produces up to 92 million tons of waste annually, some of which can be attributed to misleading greenwashing practices that deceive consumers. This situation presents a critical challenge for global stakeholders, including governments, in addressing environmental damage caused by the fast fashion trend.

Despite the increasing attention devoted to sustainable consumption, empirical evidence remains heavily concentrated in urban areas where consumers generally have greater access to environmental campaigns, ecofriendly products, and digital information. In contrast, consumers living in semirural areas represent an important yet underexplored segment, despite experiencing the rapid expansion of fast fashion products through both conventional retail channels and e-commerce platforms. Differences in environmental awareness, access to sustainability information, purchasing power, and consumption patterns may shape green consumer behavior differently from urban consumers. Therefore, examining green consumer behavior within a semirural context provides valuable insights into whether the determinants identified in previous studies remain applicable across different geographical and socio-economic settings.

Efforts to encourage green consumer behavior have been promoted both locally and globally (Barbu et al., 2022; Y. Zhang et al., 2025). However, due to the nature of fashion as part of basic human needs (sandang), this issue becomes increasingly complex (Mandarić et al., 2022). Previous studies have identified several factors influencing green consumer behavior, such as consumer environmental responsibility, perceived value, and environmental knowledge. Research by (Alhamad et al., 2023; Nugraha & Soelasih, 2023; Saif et al., 2024) found that

consumer environmental responsibility has a positive and significant effect on green consumer behavior. On the other hand, a contrasting result was reported by a study (Simanjuntak & Fitri, 2024), which found no such significant influence.

Similarly, while perceived value has been found to significantly influence green consumer behavior in studies by (Hassan et al., 2022; Truong & Ngo, 2024), (Indrata et al., 2017) reported that perceived value had no significant effect. In terms of environmental knowledge, findings by (Cui et al., 2024; G. Zhang et al., 2024) support its positive impact on green consumer behavior, whereas (Engriani & Al Ayyubi, 2021) found the opposite.

Given the gaps identified in previous studies regarding the relationships between variables, this research offers a novel contribution by introducing environmental concern as a mediating variable. Environmental concern refers to the extent to which individuals are aware of environmental issues, demonstrate support for efforts to resolve them, and are willing to actively participate in addressing environmental problems (Kim & Lee, 2023). By incorporating environmental concern as a mediating variable, this study aims to strengthen the psychological mechanisms that drive individuals to make sustainability-oriented decisions, particularly in green consumer behavior (Kızıldağ & Yıldız, 2024). Furthermore, this approach is expected to clarify the role of environmental concern in mediating the influence of various factors affecting green consumer behavior. Therefore, the findings are expected not only to address the empirical gaps found in previous studies but also to promote greater public awareness and active participation in more ecologically responsible consumption.

Despite the growing literature on green consumer behavior, several research gaps remain. First, previous studies have predominantly focused on urban consumers, while semi-rural consumers have received limited scholarly attention. Second, empirical findings regarding the effects of environmental knowledge and perceived value on green consumer behavior remain inconsistent across different contexts. Third, although Value-Belief-Norm Theory has been widely applied to sustainable consumption, its application within the fast fashion industry among semi-rural consumers in developing countries remains scarce. Therefore, this study extends the VBN framework by examining the roles of Consumer Environmental Responsibility, Perceived Value, Environmental Knowledge, and Environmental Concern in explaining Green Consumer Behavior among semi-rural consumers in Indonesia.

2. Literature Review

Value Belief Norm (VBN) Theory

The Value Belief Norm (VBN) theory, introduced by Stern et al. (1999), offers a comprehensive conceptual framework for understanding and explaining pro-environmental behavior through a systematic psychological approach. The VBN model has been widely applied in various empirical studies to understand different forms of pro-environmental behavior, including energy consumption reduction, participation in recycling activities, the

adoption of sustainable transportation, and environmentally friendly purchasing decisions (Alashiq & Aljuhmani, 2025; Hong et al., 2024).

One of the most relevant behavioral expressions in today's consumption dynamics is green consumer behavior (GCB), which reflects an individual's tendency to consider the environmental impact of the products or services they consume. To adapt and operationalize the VBN theory in this study, three main variables are employed to influence green consumer behavior: Consumer Environmental Responsibility, Perceived Value, and Environmental Knowledge. By integrating these three variables into the VBN framework, this study aims to demonstrate how values, beliefs, and personal norms shape environmentally friendly consumption behavior in a modern context increasingly challenged by greenwashing and the complexity of product information (Ghazali et al., 2019).

Green Consumer Behavior

Green Consumer Behavior refers to consumer actions that consider environmental impact throughout product selection, usage, and disposal (Ogiemwonyi et al., 2023). Driven by awareness of issues like climate change and pollution (G. Zhang et al., 2024), green consumers prefer eco-friendly, recyclable, and sustainably produced goods (Trong Nguyen et al., 2023). Influencing factors include personal values, social norms, environmental concern, and perceived benefits of green products (Ogiemwonyi et al., 2023). In modern business, this behavior represents a key sustainability strategy that strengthens loyalty and competitive advantage.

Environmental Concern

Environmental Concern refers to an individual's awareness, care, and emotional involvement toward environmental issues like climate change and pollution (Peñasco & Grossman, 2025). It reflects how seriously one views these problems and their motivation to act pro-environmentally (Kızıldağ & Yıldız, 2024). High concern leads to support for eco-friendly policies, sustainable consumption, and green behaviors (Kim & Lee, 2023). Thus, environmental concern shapes green purchasing decisions and serves as a key strategy to promote sustainability (Huang et al., 2024).

Consumer Environmental Responsibility

Consumer Environmental Responsibility (CER) refers to the moral and ethical obligation consumers feel toward the environmental impact of their consumption (Channa et al., 2022). It highlights consumers as agents of social change who support sustainability through responsible choices. Those with high responsibility avoid harmful products, prefer eco-friendly options, and back sustainable companies (Channa et al., 2022). This responsibility fosters environmental concern and pro-environmental behaviors such as recycling and waste reduction (Saif et al., 2024). It also strengthens social and personal norms that sustain green lifestyles (Saif et al., 2024) and serves as a key driver in the transition toward a green economy.

Perceived Value

Perceived value refers to consumers' subjective assessment of benefits versus costs when consuming a product or service. In sustainable consumption, it includes functional, emotional, social, and moral dimensions (Truong & Ngo, 2024). Consumers who perceive greater value in eco-friendly products through sustainability contribution or moral satisfaction show higher environmental concern and preference for green products (Apriliyanto et al., 2024). Perceived value strengthens commitment to sustainability (Lin et al., 2022) and serves as both a rational and emotional driver of green behavior. Enhancing it through communication, innovation, and transparency can effectively promote environmentally responsible consumption (Lin et al., 2022).

Environmental Knowledge

Environmental knowledge refers to individuals' understanding of environmental issues, their causes, and possible solutions, fostering critical awareness and sensitivity (Rehan et al., 2024). Greater environmental knowledge increases concern and pro-environmental behaviors such as recycling and renewable energy use (Sholihah & Harsoyo, 2023). It also shapes values and beliefs within the VBN framework, strengthening green consumer behavior (G. Zhang et al., 2024). Enhancing environmental literacy through education, campaigns, and transparency is vital to promoting sustainable consumption (Cui et al., 2024).

Consumer Environmental Responsibility toward Green Consumer Behavior

Consumer Environmental Responsibility (CER) denotes an internalized moral and social obligation toward environmental sustainability that shapes consumption choices (Channa et al., 2022). Highly responsible consumers favor eco-friendly products and avoid overconsumption (Elmor et al., 2024; Nugraha & Soelasih, 2023), a pattern that follows naturally once CER is understood as a personal norm within the Value-Belief-Norm framework, the antecedent positioned closest to behavior in Stern's causal chain, and one argued to carry more direct behavioral force than attitude or general concern alone (Stern, 2000). CER should therefore predict Green Consumer Behavior not simply because responsible consumers hold favorable attitudes toward the environment, but because a felt moral obligation makes inaction feel inconsistent with who they take themselves to be. This is reflected in evidence that CER strengthens green purchase intention and pro-environmental behavior (Channa et al., 2022; Saif et al., 2024) while also sharpening sensitivity to greenwashing (Huang et al., 2024), which suggests CER functions not only as a driver of behavior but also as an evaluative filter protecting intention from being undermined by misleading sustainability claims. Hence, the hypothesis proposed is:

H1: Consumer Environmental Responsibility has a positive influence on Green Consumer Behavior.

Perceived Value toward Green Consumer Behavior

Perceived value reflects consumers' subjective trade-off between the benefits gained and the costs incurred, spanning functional, emotional, social, and environmental dimensions

(Apriliyanto et al., 2024; Lin et al., 2022). This trade-off logic carries particular weight in green consumption, where eco-friendly products often involve a cost asymmetry, a so-called green premium in price or in reduced functional convenience, that attitude-based explanations alone do not adequately account for. Perceived value captures how consumers weigh the emotional and moral gains associated with sustainability against these costs, so that purchase follows once the accumulated value outweighs the trade-off rather than simply when attitudes are favorable. Higher perceived value is accordingly associated with greater purchase intention (Truong & Ngo, 2024) and with stronger brand image and loyalty through effective green marketing (Lin et al., 2022). It also helps explain variation among green consumers: those who fail to internalize the non-functional dimensions of value tend to remain passive despite favorable attitudes, while those who do become active, repeat green consumers (Ng et al., 2024). Perceived value therefore functions less as an outcome of green marketing and more as the mechanism through which environmental attitude is converted into purchasing behavior. Hence:

H2: Perceived Value has a positive influence on Green Consumer Behavior.

Environmental Knowledge toward Green Consumer Behavior

Environmental knowledge refers to the factual understanding of environmental issues, their causes, and their consequences that allows consumers to evaluate sustainability claims. Consumers with high environmental knowledge are better able to distinguish genuine green products from greenwashing (Cui et al., 2024; Haba et al., 2023) and to make more rational, eco-conscious decisions (G. Zhang et al., 2024). Its theoretical role, however, is better understood as an enabling condition than as a direct motivator: knowledge does not itself constitute a value or a norm but strengthens the link between environmental attitudes and behavior by heightening awareness of one's own impact (Fenitra et al., 2022). Framed this way, knowledge functions as a form of cognitive gatekeeping, it does not merely correlate with loyalty to green brands and rejection of unethical products (Li, 2025); it is what allows that loyalty to be defensible, since within the Value-Belief-Norm framework, knowledge shapes the beliefs and personal norms from which responsible consumption follows (Hong et al., 2024). Environmental knowledge should therefore predict Green Consumer Behavior even apart from moral obligation, because knowledgeable consumers can verify sustainability attributes that less-informed consumers, however well-intentioned, cannot. Therefore:

H3: Environmental Knowledge has a positive influence on Green Consumer Behavior.

Environmental Concern toward Green Consumer Behavior

Environmental concern refers to the affective and cognitive engagement individuals have with environmental issues, awareness, emotional involvement, and willingness to act (Kristiana & Aqmal, 2023; Utami, 2020; Yue et al., 2020). Within the Value-Belief-Norm framework, concern corresponds most closely to belief, specifically, awareness of consequences, and is positioned upstream of personal norms such as CER rather than equivalent to them. If personal norms are the more proximal predictor of behavior, it is worth

asking why concern should also exert a direct effect on Green Consumer Behavior rather than acting solely through norm formation. Part of the answer lies in its affective component: unlike belief, which is largely cognitive, concern carries an emotional charge that can motivate action even without a fully internalized sense of obligation. This is consistent with findings that concerned consumers adopt eco-friendly habits and favor ethical brands (Gomes et al., 2023; Nugraha & Soelasih, 2023) out of heightened emotional salience as much as duty, and that concern fosters skepticism toward unsustainable products alongside loyalty to genuinely green brands (Palomo-Domínguez et al., 2023), functioning as an evaluative lens as much as a motivational one. Concern's place within the broader Value-Belief-Norm chain, bridging values and personal norms (Ghazali et al., 2019), therefore does not preclude a direct path to behavior alongside its indirect one; both are hypothesized to hold. Therefore:

H4: Environmental Concern has a positive influence on Green Consumer Behavior.

Consumer Environmental Responsibility toward Environmental Concern

The direction hypothesized here calls for explicit justification, since it runs counter to the canonical sequence in the Value-Belief-Norm framework, where beliefs are typically positioned upstream of personal norms rather than downstream of them. Rather than treating CER and environmental concern as fixed points on a strictly linear chain, this study draws on self-perception and moral identity accounts of pro-environmental behavior: once responsibility is internalized as part of a consumer's self-concept, subsequent environmental information tends to be filtered through that self-concept, which can heighten rather than merely follow from emotional sensitivity to ecological issues. Individuals with a strong moral and social responsibility toward the environment are, on this account, more sensitive to ecological issues and more aware of the impact of their own consumption (Marcelino & Widodo, 2021; Shah et al., 2021). CER, in other words, is not only shaped by concern but may also deepen it, as individuals who have committed to a responsible identity are motivated to keep their emotional response to crises such as climate change and pollution consistent with that identity (Qiu & Qiu, 2024). This reciprocal reading is consistent with more recent extensions of the framework that treat beliefs and personal norms as mutually reinforcing rather than strictly unidirectional (Alashiq & Aljuhmani, 2025; Stern, 2000). Hence:

H5: Consumer Environmental Responsibility has a positive influence on Environmental Concern.

Perceived Value toward Environmental Concern

Perceived value encompasses the functional, emotional, social, and moral benefits that consumers associate with environmentally friendly products (Apriliyanto et al., 2024; Putra & Keni, 2020). Beyond economic considerations, consumers who perceive green products as providing meaningful environmental and personal benefits are more likely to develop greater awareness of ecological issues. Recognizing that purchasing eco-friendly products contributes to environmental preservation encourages consumers to pay closer attention to the consequences of their consumption decisions and strengthens their emotional attachment to sustainability (Čapienė et al., 2022). As a result, positive value perceptions extend beyond

purchase evaluation and foster a deeper concern for environmental well-being. This mechanism is consistent with norm activation theory, which argues that value appraisal can stimulate moral awareness and empathy toward environmental problems, thereby reinforcing environmental concern as an important psychological antecedent of sustainable behavior (Stern, 2000; Tusyanah et al., 2024). Hence:

H6: Perceived Value has a positive influence on Environmental Concern.

Environmental Knowledge toward Environmental Concern

Environmental knowledge refers to consumers' understanding of environmental issues, their causes, and their consequences, enabling them to recognize how individual consumption contributes to environmental degradation (Cui et al., 2024). A higher level of environmental knowledge helps consumers develop a clearer awareness of ecological problems and the importance of sustainable practices. As individuals gain a better understanding of environmental risks and the long-term consequences of unsustainable consumption, they become more attentive to environmental protection and more concerned about preserving natural resources. This relationship is consistent with the Value-Belief-Norm (VBN) theory, which posits that knowledge strengthens environmental beliefs by providing the cognitive foundation necessary for individuals to recognize environmental consequences and develop greater environmental concern (Sholihah & Harsoyo, 2023; Stern, 2000). Therefore, consumers with greater environmental knowledge are expected to demonstrate stronger concern for environmental issues. Hence:

H7: Environmental knowledge has a positive influence on Environmental Concern.

Environmental Concern as a mediation of Consumer Environmental Responsibility towards Green Consumer Behavior

Consumer Environmental Responsibility (CER) reflects consumers' moral obligation to minimize the environmental impact of their consumption, whereas Environmental Concern represents the emotional and cognitive awareness that motivates pro-environmental action. Within the Value-Belief-Norm (VBN) theory, a strong sense of environmental responsibility encourages individuals to become more attentive to ecological problems, thereby strengthening their environmental concern (Stern, 2000). As consumers become increasingly concerned about environmental degradation, they are more likely to translate their moral responsibility into environmentally responsible purchasing decisions and other forms of Green Consumer Behavior (Yue et al., 2020). Accordingly, Environmental Concern serves as an important psychological mechanism through which Consumer Environmental Responsibility is transformed into actual pro-environmental behavior rather than remaining solely a moral commitment. Examining this mediating role provides a deeper understanding of how moral responsibility ultimately influences sustainable consumption decisions. Hence:

H8: Environmental Concern mediates the effect of Consumer Environmental Responsibility on Green Consumer Behavior.

Environmental Concern as a mediation of Perceived Value towards Green Consumer Behavior

Perceived Value reflects consumers' assessment of a product's benefits relative to its costs (Lin et al., 2022). When environmentally friendly products are perceived as offering superior quality and meaningful environmental benefits, consumers are more likely to develop stronger positive evaluations and greater concern for environmental preservation (Hudayah et al., 2023). According to the Value-Belief-Norm (VBN) theory, Environmental Concern functions as a psychological mechanism that transforms favorable value perceptions into environmentally responsible behavior (Stern, 2000). As environmental concern increases, consumers develop a stronger sense of moral obligation toward protecting the environment, which encourages them to engage in Green Consumer Behavior. Therefore, consumers' perceived value may influence green behavior not only directly but also indirectly through the environmental concern it generates. Hence:

H9: Environmental Concern mediates the effect of Perceived Value on Green Consumer Behavior.

Environmental Concern as a mediation of Environmental Knowledge towards Green Consumer Behavior

Environmental Knowledge reflects consumers' understanding of environmental issues, their causes, and the importance of sustainable consumption (Cui et al., 2024; G. Zhang et al., 2024). Consumers with greater environmental knowledge are better able to recognize the environmental consequences of their consumption and the need to adopt environmentally responsible practices. However, knowledge alone may not always lead to Green Consumer Behavior unless it also increases consumers' awareness of environmental impacts and strengthens their concern for environmental preservation (Ogiemwonyi et al., 2023). Hence:

H10: Environmental Concern mediates the effect of Environmental Knowledge on Green Consumer Behavior.

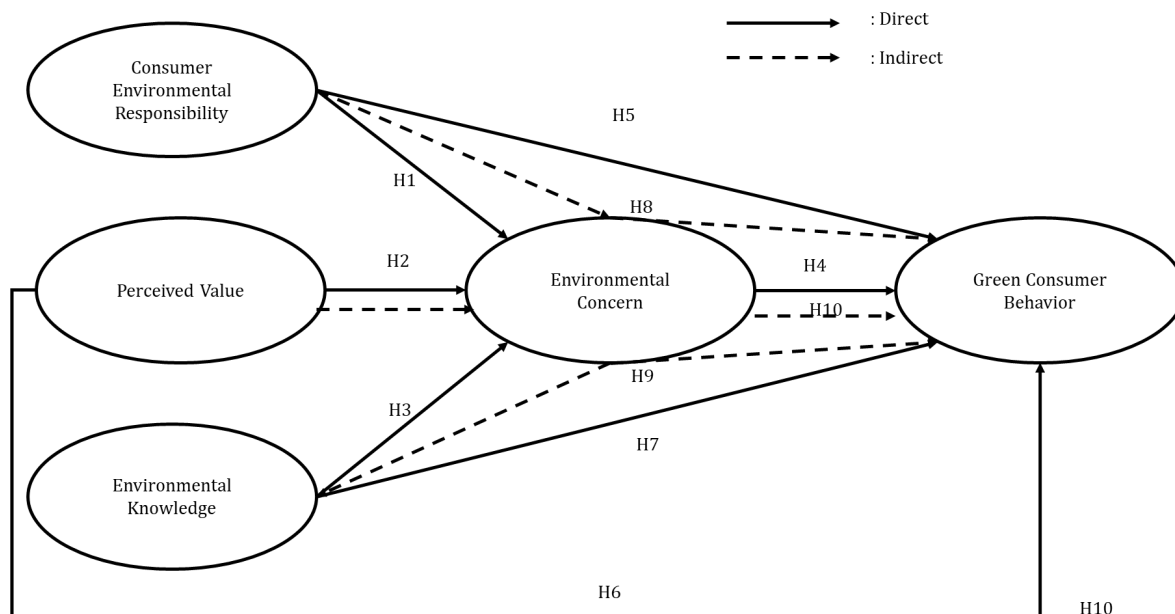


Figure 1 Conceptual Framework Model

3. Research Methods

This research is a quantitative, causal-based study of the Green Consumer Behavior scheme within a semi-rural context. This research model, which presents consumer environmental responsibility, perceived value, and environmental knowledge as independent variables, and environmental concern as a mediator, has never been combined in previous studies. The sources used are primary data by distributing questionnaires online. The population in this study is all consumers who have impulsive behavior towards fashion products, but also care about the environment. Based on a population of unknown size, the determination of the sample size was based on a study conducted by (Hair et al., 2021) by multiplying the total research indicators by 10, the total indicators in this study are 19 indicators, so the total is 190, but we want to maximize the respondents with the final number being 225 respondents. For data analysis, the tool used is SmartPLS, which is a tool with SEM (Structural Equation Modeling)(Latan, 2017). The outer model was evaluated through outer loadings, Average Variance Extracted (AVE), Cronbach's Alpha, Composite Reliability, and HTMT to ensure reliability and validity. Common method bias was assessed using Inner VIF values. The inner model was evaluated using path coefficients, bootstrapping results, R^2 , f^2 , and Q^2 to assess the model's explanatory, predictive, and goodness-of-fit performance. The operational definition in this study can be presented as follows:

Table 1. Operational Definition

Variable	Measurement items	Indicator	Source	Scale
Green Consumer Behavior (GCB)	GCB1	The use of environmentally friendly product	(Utami, 2020)	Likert 1-5
	GCB2	The use of eco-labels		
	GCB3	The utilization of eco-friendly		
Environmental Concern (EC)	EC1	reducing the use of non-Environmentally friendly products	(Alamsyah & Artanti, 2023)	Likert 1-5
	EC2	Showing concern for the state of nature		
	EC3	Choosing not to use non-environmentally friendly products		
Consumer Environmental Responsibility (CER)	CER1	Encouraging environmental awareness	(Firmansyah & Artanti, 2022; Saif et al., 2024)	Likert 1-5
	CER2	Developing environmentally friendly habits		
	CER3	Protecting the environment		
	CER4	Seeking information		
Perceived Value (PV)	PV1	Consumer benefits	(Apriliyanto et al., 2024; Lutfie & Marcelino, 2020)	Likert 1-5
	PV2	Fulfilling consumer expectations		
	PV3	Environmental contribution of the product		
	PV4	Quality standards		
	PV5	Price		
Environmental Knowledge (EK)	EK1	knowledge of environmental damage	(Rehan et al., 2024; Sholihah & Harsoyo, 2023)	Likert 1-5
	EK2	knowledge of pollution		
	EK3	critical thinking about the environment		
	EK4	attitudes of environmental concern		

4. Results

Respondent Characteristics

The following presents the characteristics of the respondents based on the collected data:

Table 2. Respondent Characteristics

Characteristics		Number of Respondents	Percentage
Gender	Male	96	42.7%
	Female	129	57.3%
Age	17-25 years old	39	17.3%
	26-35 years old	124	55.1%
	36-45 years old	38	16.9%
	above 45 years old	24	10.7%
	Student	42	18.7%
Type Of Work	Private Sector	143	63.6%
	Civil	8	3.5%
	Servants/Military/Police		
	Other	32	14.2%

Source: primary data processing, 2026

From a total of 220 respondents, 96 respondents (42.7%) were male, while 129 respondents (57.3%) were female. The respondents' ages varied: 39 respondents (17.3%) were between 17–25 years old, 124 respondents (55.1%) were between 26–35 years old, 38 respondents (16.9%) were between 36–45 years old, and 24 respondents (10.7%) were above 45 years old. Regarding occupation, the respondents also showed diversity, with 42 respondents (18.7%) being students, 143 respondents (63.6%) working in the private sector, 8 respondents (3.5%) employed as civil servants/military/police, and 32 respondents (14.2%) categorized as others.

Outer Model

The results of the outer model evaluation are presented in Table 3 and Table 4.

Table 3. Outer Model

Variable	Measurement items	Outer loadings	AVE	Composite reliability	Cronbach's Alpha
Green Consumer Behavior (GCB)	GCB1	0.924	0.754	0.901	0.832
	GCB2	0.905			
	GCB3	0.767			
Environmental Concern (EC)	EC1	0.741	0.652	0.849	0.733
	EC2	0.818			
	EC3	0.860			

Consumer Environmental Responsibility (CER)	CER1	0.939	0.815	0.946	0.922
	CER2	0.937			
	CER3	0.792			
	CER4	0.932			
Perceived Value (PV)	PV1	0.810	0.644	0.900	0.862
	PV2	0.818			
	PV3	0.753			
	PV4	0.808			
	PV5	0.822			
Environmental Knowledge (EK)	EK1	0.756	0.674	0.891	0.883
	EK2	0.745			
	EK3	0.863			
	EK4	0.908			

Source: primary data processing, 2026

Table 4. HTMT

	CER	GCB	EC	EK	PV
CER					
GCB	0.679				
EC	0.560	0.828			
EK	0.066	0.123	0.083		
PV	0.480	0.546	0.526	0.066	

Source: primary data processing, 2026

The measurement model demonstrated satisfactory reliability and validity. All outer loadings exceeded the recommended threshold of 0.70, ranging from 0.741 to 0.939. The Average Variance Extracted (AVE) values ranged from 0.644 to 0.815, exceeding the minimum criterion of 0.50, while Composite Reliability values ranged from 0.849 to 0.946 and Cronbach's Alpha values ranged from 0.733 to 0.922, indicating satisfactory internal consistency. Furthermore, the HTMT values ranged from 0.066 to 0.828, remaining below the recommended threshold of 0.85, thereby confirming adequate discriminant validity among all constructs.

Inner Model

The results of the inner model evaluation are presented in Table 5 and Table 6.

Table 5. R² and Q²

Variable	R ²	Q ²
Green Consumer Behavior (GCB)	0.554	0.401
Environmental Concern (EC)	0.280	0.167

Source: primary data processing, 2026

Table 6. Inner VIF and f^2

Connection	Inner VIF	f^2
CER → GCB	1.394	0.174
PV → GCB	1.329	0.037
EK → GCB	1.014	0.102
EC → GCB	1.388	0.293
CER → EC	1.228	0.135
PV → EC	1.225	0.085
EK → EC	1.008	0.021

Source: primary data processing, 2026

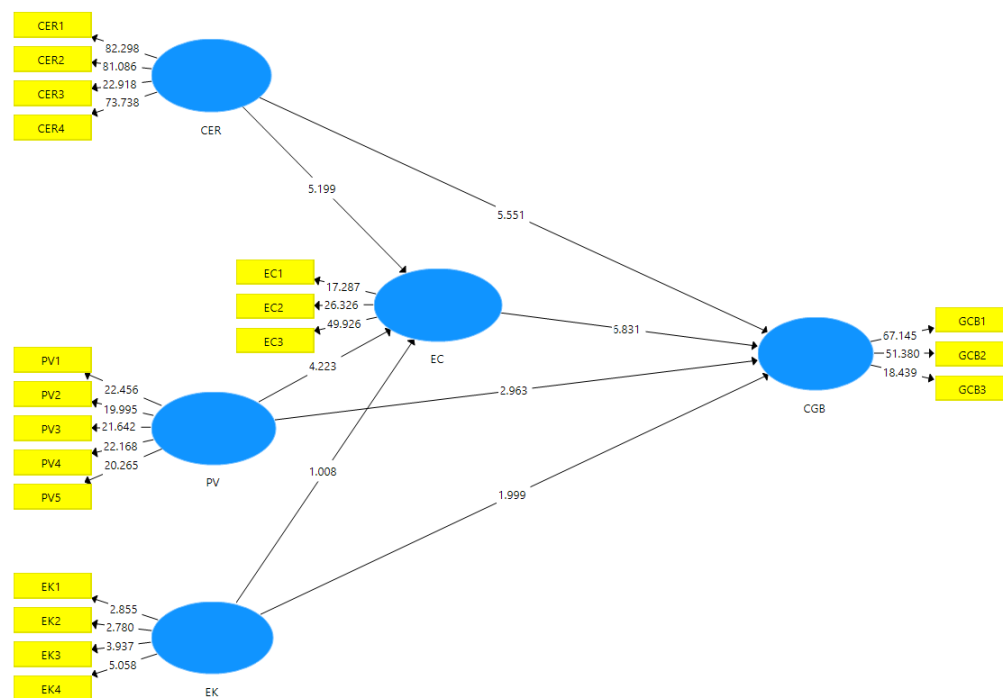
The inner VIF values ranged from 1.008 to 1.394, indicating that multicollinearity was not a concern, as all values were well below the recommended threshold of 3.3. The effect size (f^2) analysis revealed small to moderate effects across the hypothesized relationships. The strongest effect was observed for Environmental Concern on Green Consumer Behavior ($f^2=0.293$), followed by Consumer Environmental Responsibility on Green Consumer Behavior ($f^2=0.174$) and Consumer Environmental Responsibility on Environmental Concern ($f^2=0.135$). Environmental Knowledge also showed a small-to-moderate effect on Green Consumer Behavior ($f^2=0.102$), whereas Perceived Value exerted small effects on both Green Consumer Behavior ($f^2=0.037$) and Environmental Concern ($f^2=0.085$). The smallest effect was found for Environmental Knowledge on Environmental Concern ($f^2=0.021$). The structural model explained 55.4% of the variance in Green Consumer Behavior ($R^2=0.554$), indicating moderate explanatory power, whereas Environmental Concern achieved an R^2 value of 0.280, suggesting relatively weak to moderate explanatory power. Furthermore, the Q^2 values of 0.401 for Green Consumer Behavior and 0.167 for Environmental Concern confirmed that both endogenous constructs possessed satisfactory predictive relevance, with Green Consumer Behavior demonstrating stronger predictive capability than Environmental Concern.

The relatively lower R^2 (0.280) and Q^2 (0.167) values for Environmental Concern indicate that Consumer Environmental Responsibility, Perceived Value, and Environmental Knowledge explain only 28.0% of the variance in Environmental Concern. This finding is theoretically reasonable because environmental concern is a multidimensional psychological construct influenced not only by cognitive and evaluative factors but also by broader personal, social, and contextual determinants that were beyond the scope of this study. Factors such as environmental attitudes, personal values, social norms, environmental awareness campaigns, cultural background, previous environmental experiences, and emotional attachment to nature may also contribute substantially to the formation of environmental concern. Consequently, although the proposed antecedents significantly explain Environmental Concern, a considerable proportion of its variance remains

attributable to other variables not incorporated into the present model. Nevertheless, the positive Q^2 value (0.167) indicates that the model still possesses acceptable predictive relevance for Environmental Concern.

Hypothesis Testing

In this study, hypothesis testing was conducted using a multivariate statistical approach through Smart PLS with the original sample and T-statistics as the primary evaluation criteria. The interpretation of the original sample value is straightforward: a positive value indicates a positive relationship between variables, and a negative value indicates the opposite. The decision rule for T-statistics follows the conventional threshold, where a T-statistic greater than 1.960 combined with a P-value less than 0.05 indicates that the hypothesis is accepted. Conversely, if the P-value exceeds 0.05 and the T-statistic is below 1.960, the hypothesis is rejected. This procedure ensures that the relationships among variables are assessed with both statistical significance and the strength of their directional effects (Latan, 2017; Memon et al., 2021).



Source: primary data processing, 2026

Figure 2. Empirical Findings from Hypothesis Analysis

Table 5. Hypothesis Testing

	Hypothesis	Original Sample	T-Statistic (T)	P- Values (p)
H1	CER → GCB	0.329	5.551	0.000
H2	PV → GCB	0.148	2.963	0.003
H3	EK → GCB	0.098	1.999	0.046
H4	EC → GCB	0.426	6.831	0.000
H5	CER → EC	0.346	5.119	0.000
H6	PV → EC	0.273	4.223	0.000
H7	EK → EC	0.064	1.008	0.314
H8	CER → EC → GCB	0.147	4.101	0.000
H9	PV → EC → GCB	0.116	3.707	0.000
H10	EK → EC → GCB	0.027	0.997	0.319

Source: primary data processing, 2026

The hypothesis testing results indicate that Consumer Environmental Responsibility (CER), Perceived Value (PV), Environmental Knowledge (EK), and Environmental Concern (EC) all have positive and significant effects on Green Consumer Behavior (GCB), with path coefficients of 0.329 ($T=5.551$, $p < 0.001$), 0.148 ($T=2.963$, $p=0.003$), 0.098 ($T=1.999$, $p=0.046$), and 0.426 ($T=6.831$, $p < 0.001$), respectively. Therefore, H1, H2, H3, and H4 are accepted. Furthermore, CER and PV have positive and significant effects on Environmental Concern (EC), with path coefficients of 0.346 ($T=5.119$, $p < 0.001$) and 0.273 ($T=4.223$, $p < 0.001$), supporting H5 and H6. In contrast, although EK has a positive effect on EC ($\beta=0.064$), the relationship is not significant ($T=1.008$, $p=0.314$); therefore, H7 is rejected. Regarding the mediation analysis, Environmental Concern significantly mediates the effects of CER ($T=4.101$, $p < 0.001$) and PV ($T=3.707$, $p < 0.001$) on GCB, supporting H8 and H9. However, it does not significantly mediate the relationship between EK and GCB ($T=0.997$, $p=0.319$); thus, H10 is rejected.

Consumer Environmental Responsibility toward Green Consumer Behavior

Consumer Environmental Responsibility has a positive and significant relationship with Green Consumer Behavior. Within the Value-Belief-Norm framework, personal norms represent the psychological construct positioned closest to behavior, carrying greater direct force than attitudes alone. CER, as a personal norm reflecting felt moral obligation toward environmental protection, directly drives green consumption. This finding supports that higher consumer environmental responsibility strengthens engagement in green consumption behavior.

In semi-rural areas, where communities maintain proximity to nature, environmental responsibility acts as a critical anchor guiding sustainable choices. This result aligns with Alhamad et al. (2023); Nugraha & Soelasih (2023); Saif et al. (2024), who found that responsibility is a key factor motivating green consumption. Within VBN logic, internalized responsibility becomes psychologically inconsistent with inaction, creating intrinsic motivation toward

green behavior. Additionally, Gomes et al. (2023), howed that responsibility enhances critical evaluation of sustainability claims, minimizing greenwashing effects. This is crucial in fast fashion, where high waste production threatens semi-rural ecosystems. Thus, strengthening CER among semi-rural consumers effectively mitigates greenwashing and drives authentic sustainable consumption. Governments and stakeholders should formulate policies that encourage consumers to internalize environmental responsibility as a personal norm, consistent with (Channa et al., 2022) on responsibility-driven sustainability implementation.

Perceived Value toward Green Consumer Behavior

Perceived Value has a positive and significant relationship with Green Consumer Behavior. Within VBN, perceived value functions as a value construct that shapes pro-environmental beliefs. When consumers recognize that eco-friendly products provide tangible benefits, this positive appraisal activates and reinforces pro-environmental beliefs, supporting green behavior. This supports Hassan et al. (2022); Truong & Ngo (2024), showing that perceived value drives sustainable purchase decisions through benefit-sacrifice evaluation. In semi-rural contexts with limited green alternatives, consumers' perception of product value becomes decisive in converting favorable attitudes into eco-friendly choices. Consumers perceiving higher value across functional and emotional dimensions demonstrate stronger green consumption tendencies. Ng et al. (2024) emphasizes that perceived value strengthens trust in sustainability claims, reducing greenwashing doubts. This belief-level effect helps consumers form accurate environmental beliefs. This finding is particularly important in fast fashion, frequently criticized for sustainability issues. Enhancing perceived value toward green products is an effective strategy for semi-rural consumers. Companies must create clear value through quality, transparency, and tangible environmental benefits. For semi-rural markets, offering durable alternatives justifying price premiums through visible utility and positive local impacts aligns with Hassan et al. (2022) on value's role in promoting green consumption loyalty.

Environmental Knowledge toward Green Consumer Behavior

Environmental Knowledge has a positive and significant relationship with Green Consumer Behavior. Within VBN, knowledge enables individuals to recognize awareness of consequences, a key belief mechanism. Knowledge helps consumers understand how consumption impacts environmental degradation and their ability to contribute to protection, activating environmentally oriented beliefs supporting green behavior. In semi-rural settings, where environmental degradation directly affects local ecosystems, higher environmental knowledge drives responsible consumer choices. This aligns with Cui et al. (2024); G. Zhang et al. (2024), who emphasize knowledge's role in shaping positive environmental beliefs and purchase intentions. VBN explains this through knowledge as belief enabler: higher environmental literacy allows accurate assessment of product impact, strengthening pro-environmental beliefs and behavior.

Haba et al. (2023) showed that environmental knowledge enhances distinguishing genuine green claims from greenwashing, important in fast fashion. This study confirms that improving environmental knowledge effectively promotes sustainable consumption among semi-rural consumers. Educational involvement through campaigns and transparent labeling for semi-rural communities is necessary. Consistent with Cui et al. (2024), continuous education strengthens consumer literacy and belief activation, positively influencing green behavior. Local relevance, connecting global fashion waste to semi-rural ecosystems, most effectively activates VBN's belief component and behavior.

Environmental Concern toward Green Consumer Behavior

Environmental Concern has a positive and significant relationship with Green Consumer Behavior, emerging as the strongest predictor. Within VBN, environmental concern corresponds to the belief component encompassing awareness of consequences and personal ability to reduce negative outcomes. This belief mechanism activates personal norms and connects environmental values to behavioral intentions. The higher consumers' environmental concern, the greater their green consumption engagement. In semi-rural areas maintaining close bonds with natural surroundings and directly affected by ecological degradation, heightened concern translates powerfully into mindful consumption habits. Ogiemwonyi et al. (2023), revealed that environmental concern motivates consumers to reduce harmful product consumption and prefer alternatives.

VBN posits that concern activates personal responsibility norms; emotionally affected individuals develop stronger moral obligations to act. Kristiana & Aqmala (2023) found that concerned consumers resist greenwashing through critical claim evaluation. This heightened scrutiny reflects VBN's prediction that strong beliefs strengthen value-behavior links by making norm violations emotionally salient. This finding is relevant in fast fashion, frequently criticized for pollution and greenwashing. Enhancing semi-rural consumers' environmental concern fosters sustainable behavior. Educational campaigns and public policies cultivating environmental awareness in developing regions are necessary. Governments, NGOs, and fashion stakeholders should intensify outreach on unsustainable consumption impacts and engage semi-rural communities in environmental programs, aligning with Palomo-Domínguez et al. (2023), on how collective concern growth strengthens global green behavior.

Consumer Environmental Responsibility toward Environmental Concern

Consumer Environmental Responsibility has a positive and significant relationship with Environmental Concern. Within VBN, while canonical theory positions beliefs upstream of norms, this study demonstrates norms can reinforce concern-beliefs through self-perception and moral identity mechanisms. Contemporary VBN extensions recognize reciprocal belief-norm relationships. When responsibility becomes internalized as part of self-identity, environmental information filters through that lens, heightening emotional sensitivity to

ecological issues. In semi-rural regions transitioning between traditional and modern lifestyles, responsibility directly heightens concern over environmental threats.

Marcelino & Widodo (2021) found that responsibility heightens attention to ecological problems. Shah et al. (2021) emphasized that strong ecological responsibility increases environmental concern, making consumers active sustainability supporters. Responsibility functions as both outcome of values and emotional trigger deepening ecological concern. Qiu & Qiu (2024) revealed responsibility as emotional trigger influencing concern through sustainability value internalization. This finding is relevant in fast fashion, where consumer responsibility for waste impacts strengthens concern about overconsumption urgency. Public education encouraging consumers to internalize environmental responsibility as identity is important. Such awareness enhances local ecological concern and sustainable practices, creating cycles where strengthened responsibility generates deeper concern, driving authentic green behavior, consistent with VBN extensions recognizing belief-norm mutual reinforcement.

Perceived Value toward Environmental Concern

Perceived Value has a positive and significant relationship with Environmental Concern. Within VBN, perceived value operates as value construct shaping pro-environmental belief formation. When consumers recognize multidimensional benefits in sustainable products, positive appraisal activates awareness of environmental consequences. When consumers feel green products provide tangible benefits, they become motivated to understand consumption environmental impact and develop stronger ecological concern. In semi-rural settings where utility and efficiency drive decisions, recognizing green fashion alternatives' multidimensional value awakens or intensifies ecological concern. Hudayah et al. (2023) emphasized that positive perceived value strengthens consumer environmental sustainability awareness. Putra & Keni (2020) highlighted that perceived value encompasses environmental dimension stimulating ecosystem degradation concern, operating through VBN's value-to-belief pathway.

Čapienė et al. (2022) found that perceiving green products as valuable increases environmental concern because consumers believe purchasing supports environmental preservation. In fast fashion where greenwashing is common, enhancing semi-rural consumers' perceived value of eco-friendly products fosters stronger concern and transparency demands. Producers should emphasize genuine product value through quality, benefits, or honest communication. Increasing perceived value activates VBN's value-to-belief pathway, strengthening environmental concern and behavioral effects. This approach encourages semi-rural green purchasing while strengthening broader environmental concern, creating robust sustainable behavior foundations through belief activation.

Environmental Knowledge toward Environmental Concern

Environmental Knowledge has a positive but insignificant relationship with Environmental Concern. This finding indicates cognitive knowledge alone insufficiently activates emotional concern-beliefs, contrary to standard VBN predictions. VBN theoretically positions knowledge as enabling awareness of consequences, yet this study demonstrates knowledge's insufficiency without additional activating mechanisms. This differs from canonical VBN framework. Rehan et al. (2024) and Cui et al. (2024) found knowledge shapes concern for sustainability. However, (Sholihah & Harsoyo, 2023), explained that knowledge serves primarily as cognitive prerequisite; emotional factors and social norms exert stronger influence on affective concern and norm formation. This suggests cognitive pathways alone cannot drive the emotional-affective belief responses VBN links to behavior.

Semi-rural context explains this gap: while global information increases environmental knowledge, fast fashion consequences appear distant and metropolitan. Consumers experience geographical-emotional detachment preventing VBN mechanisms from converting factual knowledge into felt concern. Their cognitive knowledge lacks local urgency activating affective-moral belief mechanisms VBN links to concern and behavior. Educational approaches must transcend information delivery to internalize ecological values and foster emotional attachment. Campaigns addressing moral-affective aspects rather than factual knowledge are necessary, particularly when connecting global fashion waste to local ecosystem preservation, creating felt urgency and personal relevance activating VBN's complete causal chain from knowledge through concern-beliefs to behavior.

Environmental Concern as a mediation of Consumer Environmental Responsibility towards Green Consumer Behavior.

Environmental Concern significantly mediates the relationship between Consumer Environmental Responsibility and Green Consumer Behavior. Within VBN, this mediation demonstrates how norms influence behavior through dual pathways: direct norm-to-behavior and indirect paths through belief activation. While canonical VBN positions norms as proximal behavior determinants, this study reveals norms simultaneously activate and strengthen environmental consequence beliefs, reinforcing behavioral commitment.

Consumers feeling responsible develop greater ecological concern through affective-belief pathways, engaging in green practices with increased conviction. In semi-rural settings with community values and ecosystem connections, responsibility anchors translate into heightened concern amid modern lifestyle changes.

VBN theory (Stern et al., 1999) explains that personal values and moral responsibility influence pro-environmental behavior. This study extends VBN showing responsibility simultaneously activates reinforcing belief-concern, creating mutual reinforcement and dual pathways rather than strict unidirectionality. Yue et al. (2020) showed responsibility enhances ecological concern, strengthening green intentions and practices. Hudayah et al. (2023)

emphasize concern as psychological mechanism connecting responsibility to sustainable consumption. These findings highlight strengthening semi-rural consumers' responsibility to reinforce concern and commitment regarding fashion waste. Policy interventions and programs cultivating moral responsibility and affective concern are necessary. Fostering concern as mediator within extended VBN leverages direct norm-to-behavior and indirect belief-to-behavior pathways, creating robust multifaceted influence on semi-rural green behavior through reinforced mechanisms.

Environmental Concern as a mediation of Perceived Value towards Green Consumer Behavior

Environmental Concern significantly mediates the relationship between Perceived Value and Green Consumer Behavior. Within VBN, this mediation demonstrates value-level appraisals influencing behavior through belief activation. Perceived value activates environmental concern-beliefs strengthening behavioral commitment. This confirms perceived value influences green behavior both directly through rational evaluation and indirectly through emotional-moral concern activation. When consumers perceive green products as highly valuable, positive appraisal activates and strengthens environmental concern (consequence awareness and responsibility), encouraging deeper green consumption commitment. For semi-rural consumers, recognizing sustainable fashion's genuine value and utility triggers ecological concern through consequence awareness beliefs, bridging initial perception and actual green purchase behavior.

de Medeiros et al. (2016) stated perceived value drives consumer environmental belief systems. Putra & Keni (2020) revealed consumers perceiving green products as valuable in quality, environmental benefits, and social image demonstrate greater concern and green behavior. Van Hoang & Le Thanh (2024) emphasized concern strengthens perceived value-eco-friendly behavior relationships. This mediation, grounded in VBN's norm activation, shows perceived value activates emotional-moral responses through concern formation driving deeper sustainable commitment. Valuing green products simultaneously strengthens environmental consequence beliefs and personal norms, with concern serving as affective binding mechanism integrating values and norms into coherent behavioral motivation. Marketing emphasizing green value propositions enhances semi-rural environmental concern about fashion waste, driving frequent eco-product choices. Strategies leveraging VBN's integrated psychological mechanisms effectively reinforce green behavior through concern activation, particularly for emerging semi-rural markets.

Environmental Concern as a mediation of Environmental Knowledge towards Green Consumer Behavior

Environmental Concern does not significantly mediate the relationship between Environmental Knowledge and Green Consumer Behavior. This non-significant mediation indicates knowledge influences green behavior through direct cognitive pathways but not through reliable concern activation. This contrasts VBN theory assuming knowledge

activates consequence awareness, a core belief component, strengthening concern and behavior. Knowledge increase does not necessarily generate greater concern through VBN's belief-activation mechanism, and emerging concern insufficiently mediates knowledge-behavior relationships. Within VBN, knowledge operates primarily as cognitive prerequisite lacking affective-emotional activation power generating concern-beliefs strongly reinforcing behavioral commitment.

Previous studies report similar outcomes showing environmental knowledge insufficiently affects environmental concern. Cui et al. (2024) noted high knowledge without emotional engagement or moral motivation insufficiently triggers concern. Knowledge remains primarily cognitive, serving only as enabling condition; environmental concern requires affective drives and activated norms developing fully. In fast fashion, semi-rural consumers' awareness of waste impacts does not automatically translate into affective concern significantly influencing green behavior through concern-mediated pathways. Perceiving consequences as distant metropolitan problems creates geographical-emotional detachment preventing VBN mechanisms converting knowledge into felt concern and behavioral motivation. Educational approaches must transcend information delivery, internalizing ecological values and fostering emotional attachment. Campaigns addressing moral-affective aspects rather than factual knowledge are necessary, especially when connecting global fashion waste to local ecosystem preservation, creating urgency and relevance activating VBN's complete knowledge through concern to behavior chain.

5. Conclusion and Suggestion

This study examines the drivers of Green Consumer Behavior in the fast fashion sector, specifically focusing on semi-rural consumers. The results show that Consumer Environmental Responsibility, Perceived Value, Environmental Knowledge, and Environmental Concern significantly drive green consumption. Furthermore, Consumer Environmental Responsibility and Perceived Value significantly increase Environmental Concern, whereas Environmental Knowledge does not. Consequently, Environmental Concern successfully mediates the effects of Consumer Environmental Responsibility and Perceived Value on green behavior, but fails to mediate the effect of Environmental Knowledge. This emphasizes that for semi-rural demographics, moral responsibility and value perception are more critical than mere cognitive knowledge in triggering eco-friendly actions.

Practically, green campaigns and environmental education within semi-rural communities should prioritize cultivating moral responsibility and highlighting the tangible value of eco-friendly products, rather than just transferring factual information. Additionally, fashion brands targeting semi-rural markets must emphasize clear value propositions to effectively convert consumer awareness into sustainable purchasing preferences. The primary limitations of this study are its specific semi-rural geographic focus and its cross-sectional

design, which cannot capture long-term behavioral shifts. Future studies should expand respondent diversity, employ longitudinal designs, and integrate variables like green trust or subjective norms. Qualitative approaches are also recommended to deeper uncover the social and emotional motivations behind green consumption.

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References

1. Agrawal, M., Kalia, P., Nema, P., Zia, A., Kaur, K., & John, H. B. (2023). Evaluating the influence of government initiatives and social platforms on green practices of Gen Z: The mediating role of environmental awareness and consciousness. *Cleaner and Responsible Consumption*, 8, 100109. <https://doi.org/10.1016/j.clrc.2023.100109>
2. Alamsyah, A., & Artanti, Y. (2023). *Pengaruh environmental concern dan perceived environmental knowledge terhadap niat beli hijau melalui environmental attitude sebagai variabel mediasi*.
3. Alashiq, S., & Aljuhmani, H. Y. (2025). From Sustainable Tourism to Social Engagement: A Value-Belief-Norm Approach to the Roles of Environmental Knowledge, Eco-Destination Image, and Biospheric Value. *Sustainability*, 17(10), 4353. <https://doi.org/10.3390/su17104353>
4. Alhamad, A., Baadhem, A. M., Alhamad, A. M., Muayad Jaafar, Z., Mahfoud, A., & Baadhem, S. (2023). Influence of Consumer Environmental Responsibility on Green Consumption Intention Iniraqi Universities: The Role of Purchase Convenience and Availability of Green Products. In *Research Inventy: International Journal of Engineering And Science* (Vol. 13, Number 7).
5. Apriliyanto, N., Gilang Kharisma Putra, & Kuwatno. (2024). Potential Purchasing Decision on Eco-friendly Products: A Study on Electric Motorcycle Consumers. *JKBM (JURNAL KONSEP BISNIS DAN MANAJEMEN)*, 11(1), 69–84. <https://doi.org/10.31289/jkbm.v11i1.12428>
6. Aryoso, H., Santi, F., Manajemen, P., Ekonomi, F., Bisnis, D., Bengkulu, U., & Bengkulu, K. (2023). MILENIAL DAN INVESTASI BERKELANJUTAN: MENGHINDARI JEBAKAN GREENWASHING. *Jurnal Manajemen Terapan Dan Keuangan (Mankeu)*, 12(04).
7. Barbu, A., Catană, Ștefan-A., Deselnicu, D. C., Cioca, L.-I., & Ioanid, A. (2022). Factors Influencing Consumer Behavior toward Green Products: A Systematic

- Literature Review. *International Journal of Environmental Research and Public Health*, 19(24), 16568. <https://doi.org/10.3390/ijerph192416568>
8. Čapienė, A., Rūtelionė, A., & Krukowski, K. (2022). Engaging in Sustainable Consumption: Exploring the Influence of Environmental Attitudes, Values, Personal Norms, and Perceived Responsibility. *Sustainability*, 14(16), 10290. <https://doi.org/10.3390/su141610290>
 9. Channa, N. A., Tariq, B., Samo, A. H., Ghumro, N. H., & Qureshi, N. A. (2022). Predicting consumers' intentions to purchase eco-friendly athletic wear in a moderated model of individual green values and gender. *International Journal of Sports Marketing and Sponsorship*, 23(2), 410–436. <https://doi.org/10.1108/IJSMS-12-2020-0215>
 10. Chen, Z. (2024). *Transforming Fast Fashion: The Digital Pathway to Sustainable Supply Chains* (pp. 537–545). https://doi.org/10.2991/978-2-38476-214-9_65
 11. Cui, M., Li, Y., & Wang, S. (2024). Environmental Knowledge and Green Purchase Intention and Behavior in China: The Mediating Role of Moral Obligation. *Sustainability*, 16(14), 6263. <https://doi.org/10.3390/su16146263>
 12. de Medeiros, J. F., Ribeiro, J. L. D., & Cortimiglia, M. N. (2016). Influence of perceived value on purchasing decisions of green products in Brazil. *Journal of Cleaner Production*, 110, 158–169. <https://doi.org/10.1016/j.jclepro.2015.07.100>
 13. Elmor, L., Ramos, G. A., Vieites, Y., Andretti, B., & Andrade, E. B. (2024). Environmental sustainability considerations (or lack thereof) in consumer decision making. *International Journal of Research in Marketing*. <https://doi.org/10.1016/j.ijresmar.2024.08.003>
 14. Engriani, Y., & Al Ayyubi, F. (2021). *The Impact of Environmental Knowledge, Healthy Food and Healthy Lifestyle Towards Green Consumer Behavior in Community of Padang City*.
 15. Fenitra, R. M., Premananto, G. C., Sedera, R. M. H., Abbas, A., & Laila, N. (2022). Environmentally responsible behavior and Knowledge-Belief-Norm in the tourism context: The moderating role of types of destinations. *International Journal of Geoheritage and Parks*, 10(2), 273–288. <https://doi.org/10.1016/j.ijgeop.2022.05.001>
 16. Firmansyah, M. A., & Artanti, Y. (2022). The Study of Environmentally Friendly Products on Green Purchase Intentions: The Effect of Drive For Environmental Responsibility, Spirituality, and Social Influence. *Journal of Business and Management Review*, 3(6), 386–398. <https://doi.org/10.47153/jbmr36.3992022>

17. Ghazali, E. M., Nguyen, B., Mutum, D. S., & Yap, S.-F. (2019). Pro-Environmental Behaviours and Value-Belief-Norm Theory: Assessing Unobserved Heterogeneity of Two Ethnic Groups. *Sustainability*, 11(12), 3237. <https://doi.org/10.3390/su11123237>
18. Gomes, S., Lopes, J. M., & Nogueira, S. (2023). Willingness to pay more for green products: A critical challenge for Gen Z. *Journal of Cleaner Production*, 390, 136092. <https://doi.org/10.1016/j.jclepro.2023.136092>
19. Haba, H. F., Bredillet, C., & Dastane, O. (2023). Green consumer research: Trends and way forward based on bibliometric analysis. *Cleaner and Responsible Consumption*, 8, 100089. <https://doi.org/10.1016/j.clrc.2022.100089>
20. Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial Least Squares Structural Equation Modeling (PLS-SEM) Using R*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-80519-7>
21. Hassan, H. M. K., Quader, M. S., & Aktar, S. (2022). The Role of Perceived Value and Green Consumption Attitude on Purchase Intention of Eco-Bag: A Study on Young Consumers. *Jurnal Pengurusan*, 65, 33–44. <https://doi.org/10.17576/pengurusan-2022-65-03>
22. Hong, Y., Al Mamun, A., Masukujjaman, M., & Yang, Q. (2024). Significance of the environmental value-belief-norm model and its relationship to green consumption among Chinese youth. *Asia Pacific Management Review*, 29(1), 127–140. <https://doi.org/10.1016/j.apmr.2023.10.002>
23. Huang, L., Solangi, Y. A., Magazzino, C., & Solangi, S. A. (2024). Evaluating the efficiency of green innovation and marketing strategies for long-term sustainability in the context of Environmental labeling. *Journal of Cleaner Production*, 450, 141870. <https://doi.org/10.1016/j.jclepro.2024.141870>
24. Hudayah, S., Aulia Ramadhani, M., Arum Sary, K., Raharjo, S., & Yudaruddin, R. (2023). Green perceived value and green product purchase intention of Gen Z consumers: Moderating role of environmental concern. *Environmental Economics*, 14(2), 87–102. [https://doi.org/10.21511/ee.14\(2\).2023.07](https://doi.org/10.21511/ee.14(2).2023.07)
25. Indrata, S. L., Susanti, C. E., & Kristanti, M. M. (2017). PENGARUH PERCEIVED VALUE DAN E-SERVICE QUALITY TERHADAP CUSTOMER BEHAVIORAL INTENTION MELALUI CUSTOMER SATISFACTION PADA PENGGUNA GOJEK DI SURABAYA. In *Kajian Ilmiah Mahasiswa Manajemen (KAMMA)* (Vol. 6).
26. Irawati, Prananingtyas, P., & Wulan, R. C. (2023). Regulation Urgency of the Misleading “greenwashing” Marketing Concept in Indonesia. *IOP Conference Series*:

- Earth and Environmental Science*, 1270(1). <https://doi.org/10.1088/1755-1315/1270/1/012007>
27. Kim, N., & Lee, K. (2023). Environmental Consciousness, Purchase Intention, and Actual Purchase Behavior of Eco-Friendly Products: The Moderating Impact of Situational Context. *International Journal of Environmental Research and Public Health*, 20(7), 5312. <https://doi.org/10.3390/ijerph20075312>
 28. Kızıldağ, İ., & Yıldız, B. (2024). The Effect of Environmental Concern on The Intention to Participate in Green Tourism. *International Journal of Contemporary Tourism Research*. <https://doi.org/10.30625/ijctr.1405836>
 29. Kristiana, R., & Aqmala, D. (2023). Pengaruh Kesadaran Lingkungan, Kepedulian Lingkungan, Pengetahuan Produk dan Kesiediaan Membayar Terhadap Minat Pembelian Produk Ramah Lingkungan Pada “The Body Shop” Di Kota Semarang. *JURNAL ILMIAH EKONOMI DAN BISNIS*, 16(2), 422–436.
 30. Latan, H. (2017). *Partial Least Squares Path Modeling* (H. Latan & R. Noonan, Eds.). Springer International Publishing. <https://doi.org/10.1007/978-3-319-64069-3>
 31. Li, D. (2025). Impact of green advertisement and environmental knowledge on intention of consumers to buy green products. *BMC Psychology*, 13(1), 220. <https://doi.org/10.1186/s40359-025-02538-x>
 32. Lin, T. T., Yeh, Y.-Q., & Hsu, S.-Y. (2022). Analysis of the Effects of Perceived Value, Price Sensitivity, Word-of-Mouth, and Customer Satisfaction on Repurchase Intentions of Safety Shoes under the Consideration of Sustainability. *Sustainability*, 14(24), 16546. <https://doi.org/10.3390/su142416546>
 33. Lutfie, H., & Marcelino, D. (2020). Consumer Trust to Buy Green Product: Investigation of Green Perceived Value with Green Satisfaction Mediation. *2020 8th International Conference on Cyber and IT Service Management (CITSM)*, 1–6. <https://doi.org/10.1109/CITSM50537.2020.9268826>
 34. Mandarić, D., Hunjet, A., & Vuković, D. (2022). The Impact of Fashion Brand Sustainability on Consumer Purchasing Decisions. *Journal of Risk and Financial Management*, 15(4), 176. <https://doi.org/10.3390/jrfm15040176>
 35. Marcelino, D., & Widodo, T. (2021). *CONSUMER ENVIRONMENT RESPONSIBILITY AND CONCERN ON GREEN CONSUMPTION: UNAVAILABILITY OF ECO-PRODUCT MODERATION*. 20(2), 71–81.
 36. Memon, M. A., T., R., Cheah, J.-H., Ting, H., Chuah, F., & Cham, T. H. (2021). PLS-SEM STATISTICAL PROGRAMS: A REVIEW. *Journal of Applied Structural Equation Modeling*, 5(1), i–xiv. [https://doi.org/10.47263/JASEM.5\(1\)06](https://doi.org/10.47263/JASEM.5(1)06)

37. Ng, P. M. L., Cheung, C. T. Y., Lit, K. K., Wan, C., & Choy, E. T. K. (2024). Green consumption and sustainable development: The effects of perceived values and motivation types on green purchase intention. *Business Strategy and the Environment*, 33(2), 1024–1039. <https://doi.org/10.1002/bse.3535>
38. Nugraha, T. A., & Soelasih, Y. (2023). The factors that shape green buying behavior of eco-friendly shopping bags. *Jurnal Manajemen Maranatha*, 22(2), 121–132. <https://doi.org/10.28932/jmm.v22i2.5633>
39. Ogiemwonyi, O., Alam, M. N., Alshareef, R., Alsolamy, M., Azizan, N. A., & Mat, N. (2023). Environmental factors affecting green purchase behaviors of the consumers: Mediating role of environmental attitude. *Cleaner Environmental Systems*, 10, 100130. <https://doi.org/10.1016/j.cesys.2023.100130>
40. Palomo-Domínguez, I., Elías-Zambrano, R., & Álvarez-Rodríguez, V. (2023). Gen Z's Motivations towards Sustainable Fashion and Eco-Friendly Brand Attributes: The Case of Vinted. *Sustainability*, 15(11), 8753. <https://doi.org/10.3390/su15118753>
41. Peñasco, C., & Grossman, E. (2025). The paradox of environmental consciousness: dissecting the gap between climate change awareness, environmental concern and policy support. *Climate Policy*, 1–18. <https://doi.org/10.1080/14693062.2025.2479814>
42. Pudjianta, S. A., Aldelya, & Sabrina, N. (2024). Penerapan Green Marketing dalam Memperkuat Konsep Bisnis Berkelanjutan serta Brand Image Ace Hardware Indonesia. *Prosiding SENAM 2024: Ekonomi & Bisnis*, 4.
43. Putra, T. W., & Keni, K. (2020). BRAND EXPERIENCE, PERCEIVED VALUE, BRAND TRUST UNTUK MEMPREDIKSI BRAND LOYALTY: BRAND LOVE SEBAGAI VARIABEL MEDIASI. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, 4(1), 184. <https://doi.org/10.24912/jmieb.v4i1.7759>
44. Qiu, S., & Qiu, J. (2024). From individual resilience to collective response: reframing ecological emotions as catalysts for holistic environmental engagement. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1363418>
45. Rehan, M., Abbass, K., Hussain, Y., Usman, M., & Makhdum, M. S. A. (2024). Green human resource management in Pakistan tourism industry: Moderating role of environmental knowledge and individual green values. *International Journal of Environmental Science and Technology*, 21(3), 2505–2516. <https://doi.org/10.1007/s13762-023-05136-9>
46. Saif, S., Zameer, H., Wang, Y., & Ali, Q. (2024). The effect of retailer CSR and consumer environmental responsibility on green consumption behaviors: mediation of

- environmental concern and customer trust. *Marketing Intelligence & Planning*, 42(1), 149–167. <https://doi.org/10.1108/MIP-04-2023-0181>
47. Shah, S. M. M., Ahmed, U., Ismail, A. I., & Mozammel, S. (2021). Going Intellectually Green: Exploring the Nexus between Green Intellectual Capital, Environmental Responsibility, and Environmental Concern towards Environmental Performance. *Sustainability*, 13(11), 6257. <https://doi.org/10.3390/su13116257>
 48. Sholihah, H. A., & Harsoyo, T. D. (2023). Pengaruh Environmental Knowledge, Green Product, Green Packaging, dan Green Advertising Terhadap Green Purchase Intention pada Produk Skincare Merek Sukin. *E-Profit*, 5(2).
 49. Simanjuntak, M., & Fitri, I. (2024). Green Consumption: Behavior of Young Indonesian Consumers — Role of Environmental Knowledge, Responsibility, and Attitudes. *Pertanika Journal of Social Sciences and Humanities*, 32(3), 1141–1164. <https://doi.org/10.47836/pjssh.32.3.16>
 50. Stern, P. C. (2000). New Environmental Theories: Toward a Coherent Theory of Environmentally Significant Behavior. *Journal of Social Issues*, 56(3), 407–424. <https://doi.org/10.1111/0022-4537.00175>
 51. Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 6(2), 81–97.
 52. Trong Nguyen, L., Nguyen, T. H., Ngoc Nguyen, H., Dai Nguyen, L., Thi Thu Nguyen, D., & Duy LE, L. (2023). Determinants of green consumer behavior: A case study from Vietnam. *Cogent Business & Management*, 10(1). <https://doi.org/10.1080/23311975.2023.2197673>
 53. Truong, T.-T., & Ngo, N.-Q.-N. (2024). *Green marketing, green perceived value, and green consumer behavior*.
 54. Tusyanah, T., Pujiati, A., Sakitri, W., Wibowo, S. B., & Ismiyati, I. (2024). *Exploring the Role of Personal Norms and Environmental Concerns in Pro-Environmental Behavior: A Value-Belief-Norm Theory Perspective* (pp. 709–724). https://doi.org/10.2991/978-94-6463-522-5_54
 55. Utami, K. S. (2020). Green Consumers Behavior: Perilaku Konsumen dalam Pembelian Produk Ramah Lingkungan. *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, 9(2), 209. <https://doi.org/10.30588/jmp.v9i2.499>
 56. Van Hoang, D., & Le Thanh, T. (2024). Relationship Between Environmental Concern, Green Perceived Value and Green Purchase Behaviour: The Moderating Role of Price Consciousness. *Organizations and Markets in Emerging Economies*, 15(2(31)), 248–287. <https://doi.org/10.15388/omee.2024.15.12>

57. Yue, B., Sheng, G., She, S., & Xu, J. (2020). Impact of Consumer Environmental Responsibility on Green Consumption Behavior in China: The Role of Environmental Concern and Price Sensitivity. *Sustainability*, 12(5), 2074. <https://doi.org/10.3390/su12052074>
58. Zhang, G., Wang, L., & Meng, H. (2024). Environmental knowledge level and consumer behavior regarding green fashion: a moderated mediation model. *Asia Pacific Journal of Marketing and Logistics*, 36(4), 977–992. <https://doi.org/10.1108/APJML-07-2023-0637>
59. Zhang, Y., Zhao, H., & Zaman, U. (2025). Eco-consciousness in tourism: A psychological perspective on green marketing and consumer behavior. *Acta Psychologica*, 255, 104951. <https://doi.org/10.1016/j.actpsy.2025.104951>