

The Influence of Ecological Values on Green Consumption Behavior: The Mediating Role of Consumer Perceived Value

Zhengtao Du

Shanxi Institute of Science and Technology, Jincheng, Shanxi, 048011, China

ABSTRACT

Current green consumption exhibits characteristics of "policy-driven and youth-led." This study aims to explore the impact of ecological values on green consumption behavior and analyze the mediating role of consumer perceived value in this relationship. By investigating the consumption behavior of Generation Z (born between 1995 and 2009), this paper finds that ecological values have a significant positive effect on green consumption behavior, with perceived value acting as a mediator. The results suggest that social media platforms should further guide Generation Z's green consumption behaviors through strategies such as distributing green and public welfare-related coupons. This research not only provides a new perspective for theoretical models of green consumption behavior but also offers practical guidance for enterprises and policymakers.

KEYWORDS

Ecological values; Green consumption; Perceived value; Generation Z

1 Introduction

As global climate crises intensify and sustainable development goals deepen, green consumption has become a cross-border, intergenerational, and cross-cultural priority. According to the United Nations Environment Programme (UNEP), the global green consumption market exceeded \$10 trillion in 2024, with Generation Z contributing over 40% of the incremental growth. Their consumption behavior reflects "environmental rationality" and "value-oriented" traits, evident in their preference for energy-efficient products, electric vehicles, and second-hand transactions (e.g., Xianyu's daily transaction volume surged in 2024). However, existing research lacks systematic exploration of Generation Z's green consumption behavior, particularly regarding strategies to guide such behavior on social media platforms. This study introduces consumer perceived value as a mediating variable to examine the mechanism through which ecological values influence green consumption behavior, offering fresh insights for theoretical and practical applications.

2 Literature Review

2.1 Ecological Values

Green consumption is defined as "decision-making behavior that minimizes environmental impact during purchase, use, and disposal"^[1]. The essence lies in consumers' trade-off process between individual utility (e.g., product quality) and public welfare (e.g., carbon reduction). Existing research reveals three primary driving pathways: external constraints, economic rationality, and intrinsic values. Notably, green consumption driven by ecological values demonstrates stronger persistence and price-insensitivity, highlighting the theoretical explanatory power of ecological value systems^[2]. Values reflect individuals' pursuit of ideal goals in life and serve as fundamental principles guiding behavioral decisions^[3-4]. As relatively stable principles, values exhibit strong explanatory and predictive capabilities for behavioral intentions and decision-making^[5]. Personal values constitute primary determinants of consumers' consumption attitudes and behaviors, with environmental attitudes and eco-friendly actions reflecting individuals' value orientations^[6]. A study integrating ecological values (VAB model) with the Theory of Planned Behavior (TPB)^[7] investigates driving mechanisms of customers' green hotel consumption intentions while examining the moderating role of green hotel knowledge. Structural equation modeling analysis reveals that ecological values and subjective norms indirectly influence consumption intentions through attitudes, while attitudes, subjective norms, and perceived behavioral control directly and positively affect consumption intentions. This research validates the cognitive hierarchy connecting values with environmental behaviors and expands TPB's explanatory boundaries for green consumption. Stern's Value-Belief-Norm theory (VBN) explicitly posits that ecological values activate personal norms to prompt pro-environmental actions, providing a crucial theoretical framework for understanding the motivational basis of green consumption.

2.2 Perceived Value

The concept of perceived value was first introduced in 1954 by management scholar Peter Drucker, who asserted that

consumers purchase and consume not products but value ^[8]. Different scholars have varying measurement dimensions for consumer perceived value; however, there is a general consensus that aligns with the following definition: the overall assessment of the utility of a product or service, weighed against the costs incurred in acquiring that product or service, reflects the total benefits that customers expect to perceive in relation to their expenditures ^[9]. Accordingly, this study defines perceived value in green consumption as consumers' subjective holistic assessment formed through weighing perceived benefits against costs during green consumption decision-making processes.

As a critical practice for sustainable development, green consumption behavior and its driving mechanisms have become a focal interdisciplinary research area in environmental psychology and consumer behavior. Early studies predominantly relied on the Theory of Reasoned Action (TRA) and the Theory of Planned Behavior (TPB), emphasizing the direct effects of environmental attitudes, subjective norms, and perceived behavioral control on green consumption intentions. Perceived value, functioning as a core psychological construct bridging values and behaviors, has emerged as a pivotal mediating variable to explain heterogeneity in green consumption. Recent studies systematically validate the mediating role of perceived value. Empirical evidence demonstrates that perceived green value partially mediates the relationship between environmental awareness and green purchasing behavior ^[10]. Nevertheless, existing research exhibits limitations, particularly the lack of in-depth deconstruction of the "values-perceived value-behavior" chain mediation mechanism. These gaps provide theoretical space for this study's advancement.

2.3 Green Consumption Behavior

The notion of green consumption was initially proposed in 1963 by the International Organization of Consumers Unions (IOCU), which emphasized consumers' obligation to "protect the environment." Since its inception, the conceptualization of green consumption has undergone continuous refinement. The internationally recognized 5R principles now guide green consumption practices: Reduce, Re-evaluate, Reuse, Recycle, and Respect nature. In China, governmental, corporate, and consumer understanding of green consumption developed later. However, driven by policy incentives and growing public environmental concerns, scholarly research on green consumption has recently gained momentum.

This study employs Sheth's Multidimensional Value Model to theoretically unpack the "black box" of how ecological values influence green consumption behavior through deconstructing the plurality of consumer values. The model's value dimensions—functional, social, emotional, epistemic, and conditional—not only align with the multifaceted motivations underlying green consumption but also systematically elucidate the complex relationship between ecological values and green consumption behavior by emphasizing the mediating role of perceived value. Proposed by Sheth, Newman, and Gross in 1991, this model posits consumption behavior as an outcome of interdependent multidimensional value assessments. Its multidimensional perspective effectively addresses limitations of traditional single-dimension explanations, particularly for green consumption—a complex phenomenon driven by pluralistic motivations. Through this framework, the mediating mechanism of perceived value in linking ecological values to green consumption behavior can be comprehensively interpreted.

3 Research Hypotheses and Model

Based on the literature review, the following hypotheses are proposed:

H1: Ecological values exert a significant positive influence on green consumption behavior.

H2: Perceived value mediates the relationship between ecological values and green consumption behavior.

The research model is illustrated below:

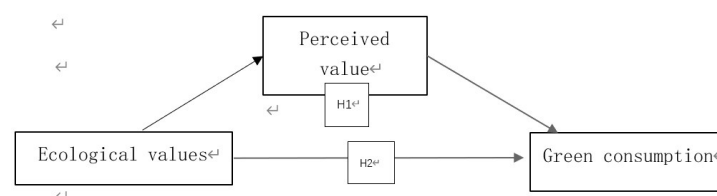


Figure 1 Research model

4 Research Methodology

4.1 Data Collection

This study employed a questionnaire survey to collect data from Generation Z consumers. The survey measured three

primary variables: ecological values, perceived value, and green consumption behavior. Distributed via the Wenjuanxing platform, 204 responses were initially collected. To ensure validity and scientific rigor, the questionnaire preface explicitly stated the research purpose, assured anonymity, and emphasized truthful responses. Compared to paper-based surveys prone to omissions, the digital format minimized incomplete submissions. Invalid responses were excluded based on:

(1) Completion time threshold: Pre-test determined minimum response time; submissions below this threshold were removed. (2) Patterned responses: Questionnaires exhibiting obvious response patterns were discarded. After screening, 200 valid questionnaires were retained (validity rate: 98.03%).

4.2 Data Analysis

Regression analysis was conducted using SPSS 25.0 to examine:

- (1) The direct effect of ecological values on green consumption behavior.
- (2) The mediating role of perceived value.

4.3 Reliability and Validity Tests

Cronbach's alpha coefficients assessed internal consistency:

$\alpha \geq 0.9$:Excellent;

$0.8 \leq \alpha < 0.9$:Good;

$0.7 \leq \alpha < 0.8$:Acceptable;

$\alpha < 0.7$:Require revision

Table 2 Reliability Analysis

Variable/Dimension	Items	Cronbach's α	Criterion
Ecological Values(x1-x6)	6	0.85	$\alpha > 0.7$ (Good)
Perceived Value(z1-z5)	5	0.82	$\alpha > 0.7$ (Good)
Green Consumption(y1-y2)	2	0.78	$\alpha > 0.7$ (Acceptable)
Full Scale	13	0.89	$\alpha > 0.7$ (Excellent)

5 Research Findings

5.1 Direct Effect of Ecological Values

Regression analysis confirmed a significant positive impact of ecological values on green consumption behavior ($\beta = 0.47, p < 0.01$), supporting H1.

5.2 Mediating Effect of Perceived Value

The bootstrap analysis revealed partial mediation by perceived value (indirect effect = 0.20, 42.6% of total effect), supporting H2.

Table 3 Regression and Mediation Analysis

Path	β	P-value	Bootstrap 95%CI
Total Effect(x $\rightarrow$ y)	0.47	0.000	[0.35,0.59]
Path a(x $\rightarrow$ z)	0.52	0.000	[0.40,0.64]
Path b(z $\rightarrow$ y)	0.38	0.000	[0.25,0.51]
Indirect Effect	0.20	-	[0.12,0.30](Sig.)
Direct Effect	0.25	0.020	[0.08,0.42]

6 Discussion and Conclusion

By introducing perceived value as a mediator, this study elucidates the mechanism through which ecological values influence green consumption behavior. Findings indicate dual pathways: direct effects and indirect effects via perceived value, offering novel theoretical insights and practical implications.

6.1 Theoretical Contributions

This research enriches green consumption theory by establishing perceived value as a critical mediator between

ecological values and behavior—a previously underexplored linkage.

6.2 Practical Implications

Guided by Sheth's Multidimensional Value Model (functional, social, emotional, epistemic, conditional), strategies to promote green consumption include:

6.2.1 Functional Value: Enhancing the practicality and cost-effectiveness of green products

Optimizing the balance between product performance and environmental attributes: lowering the production costs of green products through technological innovation, such as adopting circular economy models (like H&M's clothing recycling and remanufacturing system) or clean energy production (such as Google's commitment to 100% renewable energy), which reduces the premium of green products and enhances cost-effectiveness. It is important to prevent consumer doubts about the quality of green products arising from 'compensatory reasoning', by enhancing trust through transparency in production processes (e.g., publishing carbon footprint reports) or third-party certifications (e.g., B Corp certification); designing functional products that align with user needs: developing products that are both eco-friendly and practical, such as energy-efficient appliances and electric vehicles (like the Xiaomi SU7), to satisfy the dual demands of convenience and environmental protection.

6.2.2 Social Value

Strengthening social recognition and sense of belonging around green consumption involves creating social symbols for green consumption: through brand marketing, conveying the social value of a green lifestyle, such as Patagonia's 'repair over purchase' culture or IKEA's old furniture recycling program, which helps position green consumption as a symbol of identity. Utilizing social media to promote green consumption tags (like #sustainablefashion), encourages users to share their green consumption behaviors to create a social demonstration effect; promoting community engagement and cooperation, building green alliances with consumers, NGOs, and other stakeholders (such as Apple's clean energy supply chain program), to enhance recognition of social responsibility.

6.2.3 Emotional value: Stimulating consumers' emotional resonance with environmental protection

The use of emotion-driven marketing strategies; demonstrating the consequences of environmental destruction (such as the survival plight of polar bears) through public service advertisements or VR/AR technology to evoke feelings of guilt or empathy; simultaneously showcasing the company's environmental achievements (such as ecological restoration projects) to convey a sense of hope; shaping an emotional connection between the brand and nature, for example, through the "Green Building Materials Going to the Countryside" initiative by Three Trees, which combines environmental protection with healthy living scenarios; enhancing the immersive experience of consumption; integrating green elements into retail environments (such as using eco-friendly materials for store decoration), or enhancing participation through interactive games (such as carbon credit reward exchanges).

6.2.4 Cognitive Value: Educating consumers to establish green consumption awareness

Educating consumers by popularizing knowledge about environmental protection and green product information, such as carbon footprint calculation tools and interpreting product environmental labels (like energy efficiency ratings), to help consumers understand the long-term value of green products. Spreading the concept of green consumption through content marketing (such as short videos and live streaming), for example, the "Happy Classroom" feature of the Fule Select APP, integrating environmental knowledge with consumption scenarios. Breaking the cognitive misconceptions about green consumption, addressing consumers' biases towards green products being "high-priced and low-efficiency," by providing trial experiences or data comparisons (such as the long-term energy-saving effects of energy-efficient appliances) to enhance persuasion.

6.2.5 Value of Conditions: Creating an External Environment that Promotes Green Consumption

Respond to policies and utilize economic incentives to actively seek government subsidies (such as the subsidy policy for green appliances in Shenzhen), tax benefits, or green credit support to lower the purchasing threshold for consumers. Implement a green points system (such as the points economy of Fule Select) to convert consumption behaviors into accumulative rewards, encouraging repeat purchases; improve the infrastructure for green consumption: establish a convenient recycling system (such as H&M's old clothing recycling points) or shared service platforms (such as shared car

rentals) to reduce the practical difficulties of green consumption; collaborate with supply chain partners to optimize logistics (such as JD's distributed green supply chain) and reduce the carbon footprint across the entire chain.

7 Limitations and Future Research

Sample limitations: Focused on Chinese Gen Z; cross-cultural extensions warranted.

Mediator scope: Additional mediators (e.g., emotions, social norms) merit exploration.

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