

Green Consumption Wave and University Students' Consumption Behavior: A Review of Drivers, Practical Challenges, and Guidance Pathways

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Abstract: Driven by the dual-carbon strategy and global sustainable development goals, green consumption has evolved from an ecological and environmental protection initiative to a social movement to reshape the consumption pattern. This article takes 16 peer-reviewed literature from 2018 to 2025 as the core material, adopts a narrative review and thematic comprehensive method to sort out the positive transformation of college students' consumption behavior under the wave of green consumption, the four-dimensional coupling driving mechanism and structural problems, and build a guiding path for the tripartite collaboration between universities, society and family. The review found that more than 82% of Chinese college students can identify typical forms of green consumption, and 77.78% give priority to low-carbon modes in travel scenarios; the driving mechanism presents a multi-dimensional coordination pattern of "internal psychology-social reference-population differences-external environment"; however, 43.94% of high-aware college students fail to practice stably, presenting the dilemma of "high cognition, low action", accompanied by structural problems such as formalization tendency, consumerism impact and insufficient external support. This article provides a reference for standardizing the green consumption behavior of college students and promoting the upgrading of green consumption in the whole society.

Keywords: Green Consumption, University Students, Consumption Behavior, Sustainability, Theory of Planned Behavior

1. Introduction

In recent years, dealing with climate change and managing the ecological environment has become the core issues of common concern for all countries. Under the dual drive of China's "dual carbon" strategy and the Global Sustainable Development Goals (SDGs), green consumption, as a key link between low-carbon transformation at the production end and consumer responsibility practice, is reshaping the social consumption pattern at an unprecedented speed. From the choice of public transportation to the procurement of daily necessities, from food consumption preferences to the flow of second-hand goods, green attributes are steadily moving from the marginal consideration of consumption decision-making to the dominant position [1].

The international systematic review points out that the driving mechanism of green consumption has multi-dimensional coupling characteristics, with environmental awareness, social reference, individual differences and external support jointly affecting consumption decision-making [2];

China's early empirical research initially revealed the core explanatory variables such as cognition, attitude and social norms [3]; as Generation Z enters the main consumption stage, special research on intergenerational characteristics has gradually emerged, focusing on emerging adjustment factors such as government support, digital platforms and cultural context [4]. As the main force of youth consumption, more than 40 million students in China's higher education exhibit high environmental information exposure and a relatively open value structure, serving as an effective carrier for the diffusion of green consumption concepts.

However, the existing research still shows fragmented characteristics in terms of theme distribution, method tools and consistency of conclusions: the synchronous grasp of the "positive transformation" of college students' green consumption and "real problems" is insufficient, the integration and refinement of the four-dimensional driving mechanism is limited, and the systematic construction of the three-party collaborative guidance path of colleges and universities-society-family is still relatively weak. Based on this, this article focuses on three core issues: (1) what are the observable positive transformation characteristics of college students' consumption behavior under the wave of green consumption; (2) how the multi-dimensional driving mechanism works together; (3) how to identify its practical bottlenecks and build a systematic guidance path. This article integrates 16 representative literatures using narrative review and thematic comprehensive method, aiming to provide theoretical reference for deepening the localization of green consumption theory and the coordinated promotion of the practice of cultivating morality in colleges and universities.

2. Literature review

2.1. Evolution of the concept of green consumption and the global research pattern

The academic definition of green consumption has evolved from "environmentally friendly purchasing" to "sustainable consumption practices covering the whole life cycle of purchase-use-disposal". Khan and others pointed out that the two-stage tracking data of 282 college students in southern China pointed out that the actual green consumption behavior of young consumers not only comes from the willingness to buy green, but also is regulated by technological access and relational factors. As an important intermediary variable, the civic behavior of green organizations (OCB) further strengthens the transformation from will to behavior [5]. The discovery expands the explanatory boundaries of the traditional planned behavior theory (TPB) and puts the gap between "behavioral will and actual behavior" from the dual perspective of relationship networks and organizational culture.

2.2. Research hotspots of green consumption for college students

Research for college students has formed a number of stable hotspots. He and Sui integrate the theory of TPB and normative activation. Based on 350 questionnaires of Chinese college students, it reveals the significant positive impact of subjective norms, behavioral attitudes and personal norms on the willingness to consume green food. The attribution of responsibility indirectly affects the willingness to buy through personal norms [6]. Kour conducts driving factor research around the United Nations Sustainable Development Goal 12 (SDGs 12: Responsible Consumption and Production), emphasizing the core leading role of environmental ethics and sustainable choice in green consumption decision-making [7].

2.3. Mainstream analysis framework, emerging variables and method diversity

TPB and its expansion model are still the dominant framework for green consumption research, but emerging explanatory variables and cross-cultural comparative research continue to expand the theoretical boundaries. Shahzad and others compared the samples of China (n=476) and Pakistan (n=503) to reveal the differentiated driving effect of ethical concepts (idealism and relativism) and corporate social responsibility (CSR) activities on green consumption [8]. Li and others' empirical research on the environmental perception of Chinese college students pointed out that green subjective norms, green atmosphere, green publicity and green product supply all have a significant positive impact on green consumption willingness [9]. In terms of research methods, questionnaire survey and structural equation model are still dominant, and new methods such as machine learning and large-scale text mining are gradually introduced. Most studies use cross-sectional data with sample sizes between 282 and 1100. On the whole, the existing literature provides a rich evidence basis for this review, but the systematic integration of the four dimensions of "characteristic-mechanism-problem-countermeasure" of Chinese college students is still lacking, which is the gap that this study is trying to fill.

3. Methodology

3.1. Literature retrieval strategy

This study adopts the method of combining narrative review and thematic synthesis. The search source covers major Chinese and English academic databases such as Semantic Scholar, CrossRef, Web of Science and China Knowledge Network (CNKI); the main search word combinations include "green consumption × college students", "sustainable consumption × university students", "pro-environmental behavior × youth", "green willingness to buy × young consumers", and the corresponding Chinese keywords. The retrieval time window is from January 2018 to August 2025, and takes into account a number of highly cited basic early literature.

3.2. Inclusion and exclusion criteria

The inclusion criteria are: (1) the research subjects include college students or Generation Z youth groups; (2) the research topic focuses on green consumption cognition, behavior or mechanism; (3) published in peer-reviewed journals or conference papers; (4) clear research methods and traceable data sources. The exclusion criteria are: (1) non-academic policy comments or news reports; (2) unknown data source or too small sample size (n<100); (3) suspicious literature verified by DOI that is suspected of fabrication. On the basis of the preliminary retrieval of more than 200 candidate literatures, the first round of screening was completed according to the relevance of the title and abstract, and the final inclusion was completed through full-text reading; the DOI of all literature was verified on doi.org, and 16 core literatures were finally included, of which more than 80% were published in the past five years (2021-2025).

3.3. Analysis framework

This review adopts the four-dimensional analysis framework of "characteristic turn-driving mechanism-real problem-guiding countermeasures": summarize the overall trend characteristics; distill the driving mechanism from intrinsic psychology, social reference, population differences and external environment; identify structural problems; and form a guiding path from university-society-

family coordination, echoing multi-dimensional driver identification [2] and SDG policy application needs [7].

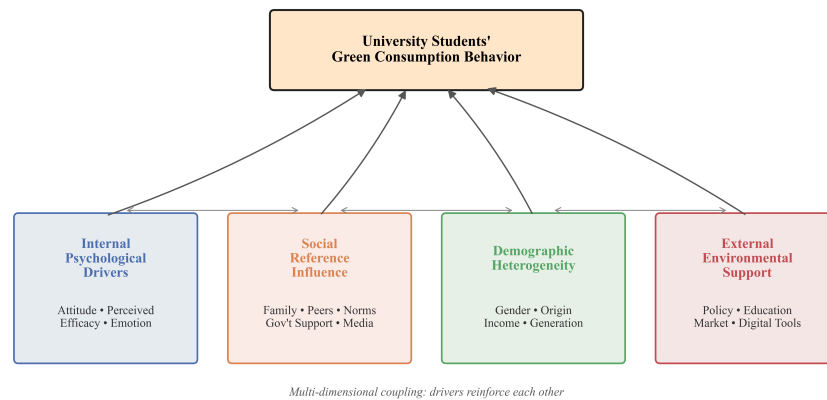


Figure 1. Research framework

4. Results

4.1. Positive transformation characteristics of green consumption of college students

The green consumption wave has gradually shifted the consumption orientation of college students from traditional practical orientation to green and sustainable orientation, showing significant positive changes in the three levels of cognition, choice preferences and behavioral habits. According to the survey data, more than 82% of college students can accurately identify typical forms of green consumption such as public transportation, garbage classification and resource recycling, and 87.88% clearly regard residents' weak environmental awareness as an important trigger for ecological and environmental problems [1]; empirical research by Li and others further shows that green subjective norms, green atmosphere, green publicity and green product supply all have a significant positive impact on the willingness to consume green [9]. In the travel scenario, 77.78% of college students prefer public transportation, walking, cycling and other low-carbon modes [1]; in the shopping scenario, the attention to product attributes such as green logos, energy-saving certification, and environmental protection materials has increased significantly, and green consumption has changed from "optional behavior" to "priority choice".

4.2. Four-dimensional coupling driving mechanism

The shaping of the consumption behavior of college students by the green consumption wave is not a one-way concept indoctrination, but a complex process of multi-dimensional multi-mechanism coordination, which can be condensed into four coupling dimensions and systematically compared in Table 1.

First, the internal psychological motivation constitutes the core internal cause. Lu and Park modeled Chinese consumer data through machine learning models such as Gaussian simple Bayes, k-neighbor, multi-layer sensor, and XGBoost, and found that emotional drivers such as guilt and pride played a key role in green consumption decision-making, and cultural and product-related factors also had a significant impact [10]; He and Sui further confirmed the significant positive effect of behavioral attitudes, subjective norms and personal norms on the willingness of Chinese college students to consume green food [6].

Second, social reference influence shapes behavior through demonstration and normative effects. Khan and others confirmed that technology accessibility and related factors significantly predict young people's willingness to buy green, and green OCB, as a key regulating variable, strengthens willingness - behavioral transformation [5]; Ling and others' studies on 328 Chinese Generation Z college students show that subjective norms, perception behavior control, environmental knowledge and social media influence all play a significant role in green consumption behavior, and the government support significantly strengthens the above effect [4].

Third, population differences constitute significant regulatory variables. Gender, place of origin and disposable income level jointly shape behavior: urban students show more non-green behavior, rural students perform better in daily green behaviors such as saving water and electricity, and the level of living expenses is positively related to green consumption awareness [1].

Fourth, the support of the external environment determines whether cognition can be transformed into behavior. Kour positions consumer behavior, environmental ethics and sustainable choices as a supporting system for green consumption [7]; Shahzad et al. revealed the differentiated effect of ethical concepts and corporate social responsibility activities in different cultural situations [8]; He et al. found that digital literacy influenced the willingness to buy green food through attitude ($\beta=0.317$, $p<0.001$) and perception behavior control ($\beta=0.292$, $p<0.001$), and ecological values also have a comprehensive effect ($\beta=0.234$, $p<0.001$) [11]; Kinanthi and Octavia [12] and Du [13] further confirmed that eco-labels, green advertising and emotional evoke to strengthen youth green purchases through environmental knowledge and value resonance.

4.3. Practical problems and structural bottlenecks

Despite the significant positive turn, the green consumption of college students is still in a shallow unstable stage, and the bottlenecks are concentrated in four levels. Separation of cognition and behavior: 43.94% of college students have a high awareness of green consumption, but the proportion of continuous and stable practice is significantly low. 39.09% have the awareness of garbage classification, but it is difficult to implement due to objective conditions such as facilities and habits [1]; Su and others based on the expansion of the UTAUT model confirm that expected utility, convenience factors and perceived cost factors significantly have a positive impact on the willingness, but the actual behavior needs to be transformed through the intention to consume and convenience [14]. Formalization and symbolization tendency: A few college students alienate green consumption into identity labels and social symbols, overly chasing the "green logo" and ignoring the essence of resource conservation. Consumerism: Online media and commercial advertising accelerate the penetration of consumerism, and the concepts of pleasure, comparison, advance consumption and other concepts continue to impact the campus, weakening the willingness to consume green. The external support system is not perfect: insufficient integration of college courses, lack of family demonstration, and the prevalence of pseudo-green marketing in the market, which jointly weakens the external guarantee of stability.

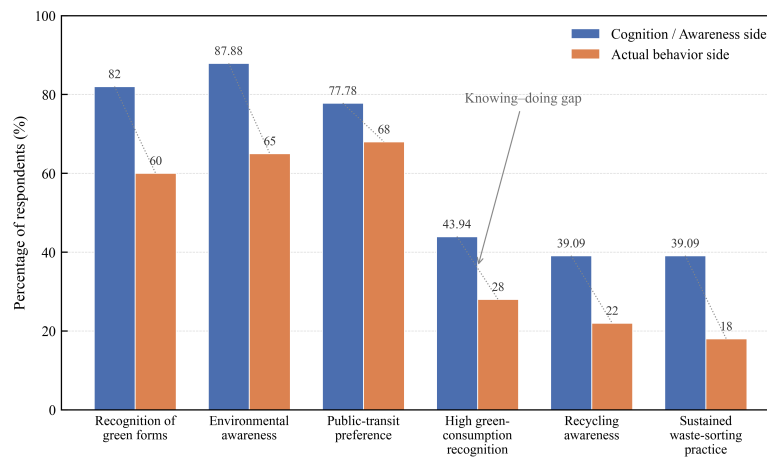


Figure 2. Main results

Table 1. Comparison of the four driving-mechanism dimensions of university students' green consumption: key variables, representative studies, and effect direction

Dimension	Key Variables	Representative Studies	Effect
Internal Psychological Drivers	Attitude, perceived efficacy, emotion (guilt, pride), individual norms	He & Sui (2024); Lu & Park (2025); Kour (2024)	Strong positive on intention and stability
Social Reference Influence	Subjective norms, family/peer modeling, social-media influence, government support	Ling et al. (2023); Khan et al. (2023); Du (2024)	Moderates intention–behavior conversion
Demographic Heterogeneity	Gender, urban/rural origin, monthly disposable income, generational identity	Luo et al. (2020); Li et al. (2021)	Significant moderator; group heterogeneity
External Environmental Support	Policy, school education, ecolabeling, low-carbon infrastructure, digital literacy, eWOM	He et al. (2025); Kinanthi & Octavia (2025); Shahzad et al. (2024)	Determines whether awareness becomes behavior

5. Discussion

This review integrates the four dimensions of "characteristics-mechanisms-problems-countermeasures" into a localized analysis framework, unifies internal psychology, social reference, population differences and external environment into a multi-layered explanation logic, and identifies the cognition-action gap as the core bottleneck of deepening green consumption.

5.1. College-society-family tripartite guidance path

Universities: As the main position of talent cultivation, universities bear primary responsibility. Hong proposed that under the five new development concepts of "innovation, coordination, green, openness and sharing", green consumption education should be integrated with campus ecological community construction and embedded into the moral-cultivation system [15]; specific paths include integrating green consumption into ideological-political and curriculum-based ideological courses (e.g., consumption ethics, environmental economics) and incorporating green-consumption performance into comprehensive evaluation. *Society:* government, market and media should jointly cultivate a healthy green-consumption ecology — improve green product standards, regulate market

order, crack down on pseudo-green marketing, and expand low-carbon infrastructure; enterprises can optimize green advertising through emotional resonance and information transparency [13]; Kinanthi and Octavia further indicated that sustainability-claim transparency, clear product-benefit communication and consumer education are core elements of cultivating long-term trust [12]. *Family*: Ka and Nguyen showed that environmental awareness and subjective norms significantly shape household consumption willingness in developing countries, making family-level cognitive popularization and demonstration indispensable [16]; parents should set an example for green consumption and moderately regulate students' economic sources.

5.2. Limitation and future research

This review relies on qualitative thematic induction without meta-analytic integration, and most included literature is cross-sectional questionnaire data. Future research should promote longitudinal data collection to test the long-term stability of green consumption behavior, carry out tripartite collaborative intervention experiments, and explore the role of digital platforms and AI-driven recommendations in youth green consumption decision-making.

6. Conclusion

This review forms three core judgments. First, the green consumption wave has systematically reshaped the consumption behavior of contemporary college students: more than 82% can identify typical green consumption forms and 77.78% prioritize low-carbon travel modes; green attributes have been stably embedded in the decision-making chain, making college students practitioners and demonstrators of green consumption [1]. Second, the driving mechanism presents the four-dimensional coupling of "internal psychology-social reference-population differences-external environment", with attitude, subjective norms, government support, digital literacy and ethical concepts jointly determining behavior formation and stability [4]. Third, constrained by cognition-action obstacles, formalization tendency, consumerism impact and insufficient external support, the overall green consumption of college students remains shallow and unstable, sharing commonalities with youth in developing countries [16]. Stable, rational green consumption requires returning to resource conservation, environmental protection and sustainable development through stronger university-society-family coordination.

Declaration of interests

The author declares no competing interests. No external funding was received for this study.

Authorship contributions

Xiaojin Bai: Conceptualization, literature search and screening, data extraction, formal analysis, framework design, writing — original draft, writing — review and editing.

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