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The Impact of Douyin Live Shopping Quality of Yuhua Chinese Tea as a Green Product in Continued Green Purchase Intention: Exploring the Role of Green Consumption Awareness and Trust in Nanjing, China

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Abstract

Purpose: This study explores the influence of live-streaming shopping quality on consumers' continued green purchase intention, specifically focusing on Yuhua Chinese tea as a green product among Douyin (TikTok China) users in Nanjing, China. In the Theory of Planned Behavior and extended through experiential value theory, the research model includes seven latent variables: Live-Streaming Shopping Quality, Utilitarian Value, Hedonic Value, Social Value, Trust in Green Products, Green Consumption Awareness, and Continuous Green Purchase Intention. **Research design, data, and methodology:** Quantitative data were collected via an online survey distributed to 414 Douyin users with prior purchasing experience of Yuhua tea. The sample was recruited via purposive sampling on Douyin communities and WeChat groups in Nanjing. A pre-test (IOC) and pilot test (n=30, Cronbach's $\alpha > 0.80$) were conducted to ensure content validity and reliability. The data analysis employed Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) using JAMOVI. **Results:** Findings reveal that trust in green products and green consumption awareness significantly predict continued green purchasing behavior. Additionally, social value emerged as a key antecedent impacting both cognitive and affective variables, including trust and awareness. The study offers theoretical insights into digital green consumerism and practical strategies for enhancing environmental messaging, trust-building, and interactive engagement through live-stream platforms. **Conclusions:** These findings support the growing role of digital commerce in advancing sustainability and guide green marketers, influencers, and platform developers in fostering responsible consumer behavior.

Keywords: Live-streaming Shopping; Green Products; Green Consumption Awareness; Consumer Trust; Sustainable Purchase Intention

1. Introduction

The context for the study is addressing the escalating global environmental concerns and the increasing demand for sustainable consumption. As consumers prioritize environmentally friendly products, businesses are adapting through green marketing strategies to meet this demand. In this evolving landscape, live-streaming shopping has emerged as an innovative and interactive digital commerce model that enables real-time engagement between consumers and sellers. This model is recognized for enhancing consumer trust, enriching the shopping experience, and influencing sustainable purchasing behaviors. Specifically, live-streaming shopping quality has been identified as a powerful tool in promoting green product awareness and consumption.

The rise of live-streaming commerce, particularly in China, has significantly transformed e-commerce. The sector experienced exponential growth, with China's live-streaming e-commerce market reaching 4.9 trillion yuan in

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2023, a 35.2% increase from the previous year (Yuan et al., 2022). Platforms like Douyin (a short-form video-sharing platform) have become central to this growth, facilitating immersive consumer engagement and driving behavioral changes in digital shopping environments (Jia, 2023). Researchers have identified key psychological and technological factors, including information quality, interactive features, and perceived product authenticity, as central to live-streaming commerce's success (Cho, 2021; Gao & Yuan, 2022; Zhu et al., 2023).

The focus of this study Yuhua tea (also known as Yu Hua tea) is situated within this live-streaming ecosystem. As one of China's top ten famous teas, Yuhua tea is a stir-fried green tea produced in Nanjing, Jiangsu Province. It has a long-standing cultural significance and has received national geographical indication status (Zeyi et al., 2021). Its cultivation follows traditional, low-intervention methods, and it is often certified as an organic product, providing objective "green" credentials that make it an appropriate exemplar for this study. Since the COVID-19 pandemic, e-commerce platforms have accelerated tea sales, with total online tea sales in China doubling from 2019 to 2020. Nanjing's increasing environmental awareness and digital infrastructure make it an ideal setting for studying green purchasing behavior through live-streaming commerce (Benn, 2015; Zhang & Wang, 2020).

Despite the potential, challenges persist in the domain of green consumption. Consumer skepticism toward the credibility of environmental claims and product quality often impedes repeat green purchases. Theoretical and practical gaps remain in understanding how live-streaming shopping quality influences continued green purchasing behavior---particularly for products like Yuhua tea. Trust in green products and consumers' green consumption awareness are crucial in overcoming such barriers and fostering sustainable purchasing behavior over time.

This study aims to bridge this gap by investigating how live-streaming quality drives continued green purchases through the mediating roles of trust and awareness. It integrates cognitive, emotional, and social value constructs within the frameworks of the Theory of Planned Behavior and Experiential Value Theory. The study aims to investigate these dynamics through a quantitative research design, incorporating seven key variables: Live-Streaming Shopping Quality (LSSQ), Utilitarian Value (UTV), Hedonic Value (HEV), Social Value (SOV), Trust in Green Products (TGP), Green Consumption Awareness (GCA), and Continuous Green Purchase Intention (CGPI). This study holds theoretical and practical relevance. It contributes to the growing literature on sustainable digital consumer behavior by integrating cognitive, emotional, and social value constructs. From a practical standpoint, it provides guidance for green marketers, influencers, and platform developers on enhancing consumer trust, improving environmental messaging, and utilizing live-streaming features to increase sustainable consumption. Moreover, it addresses how perceived product value and environmental awareness contribute to shaping green consumer behavior in a digital setting.

The contributions are threefold: (1) theoretical integration of TPB and EVT in a live-streaming context, (2) empirical validation of social value as a primary driver of green awareness, and (3) practical strategies for marketers to leverage live-streaming for sustainability.

1.1 Research Objectives

The research objectives are:

(1) Examine the impact of live streaming shopping quality on trust in green products through Yuhua tea and its effect on continued green purchase intention.

(2) Assess the impact of hedonic value on trust in green products through Yuhua tea and its role in shaping continued green purchase intention.

(3) Analyze the impact of utilitarian value on trust in green products through Yuhua tea and its contribution to continued green purchase intention.

(4) Analyze the impact of social value on trust in green products through Yuhua tea and its contribution to continued green purchase intention.

(5) Explore the impact of social value on green consumption awareness through Yuhua tea and its subsequent effect in continued green purchase intention.

(6) Determine the impact of trust in green products through Yuhua tea on consumers continued green purchasing intention.

(7) Evaluate the impact between green consumption awareness through Yuhua tea and consumers continued green purchasing intentions.

1.2 Research Questions

The research questions are:

(1) How does live streaming shopping quality influence trust in green products (via Yuhua tea), and how does this trust affect continued green purchase intention?

(2) To what extent does hedonic value impact trust in green products (via Yuhua tea), and how does this trust shape consumers' continued green purchase intention?

(3) How does utilitarian value affect trust in green products (via Yuhua tea), and what role does this trust play in consumers' continued green purchase intention?

(4) What is the influence of social value on trust in green products (via Yuhua tea), and how does this trust contribute to continued green purchase intention?

(5) How does social value affect green consumption

awareness (via Yuhua tea), and how does this awareness subsequently influence continued green purchase intention?

(6) What is the impact of trust in green products (via Yuhua tea) on consumers' continued green purchasing intention?

(7) How does green consumption awareness (via Yuhua tea) influence consumers' continued green purchasing intentions?

This study investigates the influence of Douyin live-streaming shopping quality on consumers' continued green purchase intention of Yuhua Chinese tea in Nanjing, China, by examining the mediating roles of green consumption awareness and perceived value (utilitarian, hedonic, and social), as well as the moderating role of trust in green products. By employing a quantitative research design and structural equation modeling, the study aims to provide empirical insights into how psychological, experiential, and technological factors interact within live-streaming environments to shape sustainable consumer behavior, thereby offering both theoretical contributions to green marketing literature and practical implications for digital commerce strategies in promoting environmentally friendly products.

2. Literature Review

2.1 Live-Streaming Shopping Quality and Its Role in Fostering Trust in Green Products

Live-streaming shopping has emerged as a transformative force in e-commerce, blending real-time engagement with retail to create an interactive and immersive consumer experience. Research indicates that the quality of live-streaming shopping—encompassing factors such as real-time interaction, product transparency, and host credibility—plays a pivotal role in shaping consumer trust, particularly in the context of green products (Wang et al., 2021). In markets like China, where platforms such as Douyin dominate, live-streaming enables hosts to dynamically showcase sustainable products, providing immediate clarification on environmental claims, materials, and ethical production processes (Li et al., 2020). This real-time engagement enhances trust in green products, as consumers can directly verify authenticity, reducing skepticism often associated with eco-friendly marketing (Chen et al., 2023). Trust is further reinforced through third-party certifications, expert endorsements, and interactive Q&A sessions, which collectively enhance perceived credibility (Xu et al., 2020). Empirical studies suggest that high-quality live-streaming experiences significantly strengthen green consumption cognition—deepening consumers' understanding of sustainability—while fostering long-term purchasing intentions (Zhang et al., 2023). Consequently, this study posits that live-streaming shopping quality positively influences trust in green products (mediated by factors such as Yuhua tea promotions), thereby driving continued green purchase behavior (Huang et al., 2022). Thus, we propose:

H1: Live streaming shopping quality has a positive impact on trust in green products (mediated by Yuhua tea), which in turn increases continued green purchase intention.

2.2 The Role of Utilitarian, Hedonic, and Social Value in Live-Streaming Shopping and Green Purchasing Intentions

2.2.1 Utilitarian Value

Utilitarian value pertains to the functional and practical benefits consumers derive from a product or service, emphasizing efficiency, convenience, and task-oriented utility (Babin et al., 1994). In the context of live-streaming shopping on platforms such as Douyin, utilitarian value manifests through the platform's ability to facilitate informed and expedient purchasing decisions. Consumers are drawn to live-streaming commerce due to its capacity to deliver real-time product demonstrations, detailed specifications, and immediate promotional offers, thereby optimizing the shopping experience (Li et al., 2020). This efficiency aligns with consumers' desire for convenience and rational decision-making, particularly in digital retail environments.

Within green consumption, utilitarian value assumes heightened significance as consumers increasingly prioritize sustainability alongside functionality. Live-streaming hosts enhance utilitarian perceptions by explicitly articulating the practical advantages of eco-friendly products—such as energy efficiency, cost savings, and durability—while simultaneously addressing environmental benefits (Wang et al., 2021). Empirical research suggests that utilitarian motivations are increasingly intertwined with ecological consciousness, particularly in markets like Nanjing, where consumers seek products that reconcile sustainability with performance. By leveraging live-streaming's interactive features to clarify product attributes and sustainability credentials, brands can amplify utilitarian value, thereby reinforcing green purchasing intentions.

2.2.2 Hedonic Value

Hedonic value refers to the emotional and experiential gratification consumers derive from shopping, encompassing enjoyment, entertainment, and sensory pleasure (Hirschman & Holbrook, 1982). In live-streaming shopping, hedonic value is amplified through dynamic host interactions, engaging presentations, and immersive content, transforming routine purchases into entertaining

experiences (Lin et al., 2024). Platforms like Douyin capitalize on this by integrating gamification elements (e.g., limited-time offers, interactive polls) that heighten excitement and emotional engagement.

For green products, hedonic value serves as a critical lever in fostering sustainable consumption. When eco-friendly products are presented in an entertaining and visually appealing manner, consumers associate positive emotions with sustainable choices, mitigating perceptions of "green" products as purely functional or sacrificial (Chen et al., 2023). Research indicates that hedonic-driven consumption is particularly effective in collectivist cultures like China, where social and emotional shopping experiences strongly influence behavior (Wang et al., 2021). Live-streaming hosts who skillfully blend entertainment with sustainability messaging can thus enhance hedonic value, making green purchases not only ethically appealing but also emotionally rewarding.

2.2.3 Social Value

Social value encompasses the status, identity reinforcement, and communal belonging that consumers derive from their purchasing decisions (Sheth et al., 1991). In live-streaming shopping, social value is cultivated through real-time interactions with influencers (KOLs) and peer viewers, fostering a sense of community and shared identity (Wang et al., 2021). This dynamic is particularly salient in green consumption, where purchasing eco-friendly products serves as a social signal of environmental consciousness.

In Nanjing, where sustainability is gaining cultural traction, live-streaming platforms enable consumers to publicly align with eco-conscious communities, reinforcing social identity and normative influence (Chen et al., 2023). The endorsement of green products by trusted influencers further elevates social value, as consumers perceive such purchases as a means of gaining peer approval and enhancing self-image (Li et al., 2020). Additionally, the participatory nature of live-streaming—where viewers engage in discussions and co-create content—strengthens communal ties, making sustainable consumption a socially validated behavior.

2.2.4 Trust in Green Products

Trust in green products hinges on consumers' confidence in the authenticity of environmental claims, which is often challenged by greenwashing concerns (Wang et al., 2019). Live-streaming shopping mitigates this skepticism through real-time transparency—hosts substantiate sustainability claims by demonstrating product attributes (e.g., materials, certifications) and addressing queries instantaneously (Xu et al., 2020). Third-party endorsements and interactive Q&A sessions further bolster credibility, fostering trust in green products.

Building on the above theoretical framework, the following hypotheses are proposed:

H2: Hedonic value has a positive impact on trust in green products (mediated by Yuhua tea), which in turn increases continued green purchase intention.

H3: Utilitarian value has a positive impact on trust in green products (mediated by Yuhua tea), which in turn increases continued green purchase intention.

H4: Social value has a positive impact on trust in green products (mediated by Yuhua tea), which in turn increases continued green purchase intention.

2.3 Green Consumption Awareness in Live-Streaming Commerce and Social Value

Green consumption awareness refers to consumers' cognitive understanding of environmentally friendly products, including their ecological attributes, sustainability benefits, and broader environmental impacts (Joshi & Rahman, 2015). In contemporary consumer markets, heightened environmental consciousness has positioned green consumption as a critical strategy for mitigating ecological degradation (Bansal & Agarwal, 2022). This awareness extends beyond product functionality to encompass recognition of how individual purchasing decisions contribute to collective environmental outcomes (Gaffney, 2014). Research indicates that modern consumers are progressively seeking sustainable alternatives to conventional products, reflecting a paradigm shift towards environmentally responsible consumption (Seacat & Boileau, 2018).

Live-streaming platforms such as Douyin serve as powerful educational mediums for enhancing green consumption awareness. Through real-time product demonstrations and interactive engagements, streamers can effectively communicate the ecological advantages of sustainable products while contrasting them with conventional alternatives (Li et al., 2020). The platform's interactive features, including live Q&A sessions and instant feedback mechanisms, facilitate deeper consumer understanding of product sustainability credentials. This dynamic information exchange fosters informed decision-making processes, enabling consumers to internalize the environmental implications of their purchasing choices (Wang et al., 2021).

Social value in consumption contexts refers to the symbolic benefits derived from products that enhance one's social identity, status, or communal belonging (Sheth et al., 1991). Within live-streaming commerce platforms like Douyin, social value emerges through real-time interactions between consumers, influencers, and peer communities (Wang et al., 2021). This interactive environment transforms

purchasing decisions into socially visible acts, enabling consumers to signal environmental consciousness and align with sustainability-oriented reference groups (Chen et al., 2023).

The relationship between social value and green consumption manifests particularly strongly in environmentally conscious markets like Nanjing, China. Here, green purchases serve dual functions: fulfilling practical needs while simultaneously communicating social identity (Li et al., 2020). Key opinion leaders (KOLs) amplify this effect by curating sustainable lifestyles and normalizing eco-friendly consumption patterns through their endorsements. When consumers adopt products promoted by these influencers, they not only acquire goods but also reinforce their membership in environmentally conscious social circles (Wang et al., 2021).

Live-streaming platforms enhance this social dimension through their communal interactive features. Real-time conversations about product sustainability, shared viewing experiences, and public participation in eco-conscious discussions create collective reinforcement mechanisms (Chen et al., 2023). This social environment transforms individual purchasing decisions into participatory sustainability practices, where consumer choices gain meaning through communal validation and shared environmental values.

The social dynamics inherent in live-streaming commerce significantly contribute to heightened green consumption awareness. When sustainable products are framed within social contexts - emphasizing community benefits, collective impact, or ethical consumption movements - consumers develop deeper understanding of their environmental significance. Research demonstrates that social value motivations prompt consumers to actively seek information about product sustainability, thereby expanding their ecological knowledge base (Wang et al., 2021). The following hypothesis is proposed:

H5: Social value has a positive impact on green consumption awareness (mediated by Yuhua tea), which in turn increases continued green purchase intention.

2.4 Green consumption awareness, Trust in Green Products, and Continuous Green Purchasing Intention

Continuous green purchasing intention reflects consumers' sustained commitment to environmentally friendly consumption patterns (Oliver, 1999). This behavioral intention is shaped by multiple factors including environmental concern, product trust, perceived value, and cumulative consumption experiences (Xu et al., 2020). Research indicates that habitual green consumption emerges when positive brand experiences intersect with social influence mechanisms, creating self-reinforcing cycles of sustainable purchasing (Wang et al., 2021).

In live-streaming commerce environments, several platform-specific features contribute to strengthening continuous green purchasing intention. Repeated exposure to sustainability messaging through interactive promotions and personalized recommendations creates cognitive reinforcement of green consumption values (Chen et al., 2023). The cumulative effect of these exposures fosters product familiarity and platform trust, both essential components in developing long-term green consumption commitments. Notably, the consistent presentation of eco-friendly products by trusted influencers establishes credibility through source consistency, further solidifying consumers' sustainable purchasing intentions.

Trust in green products constitutes consumers' confidence in the veracity of environmental claims associated with sustainable products (Wang et al., 2019). This trust dimension is particularly crucial in live-streaming commerce due to the complex nature of sustainability information regarding ecological impact, sourcing, and production methodologies. Consumers require assurance that environmental claims represent substantive ecological benefits rather than superficial marketing tactics (Xu et al., 2020).

Live-streaming platforms address this need through real-time information exchange. Streamers enhance product trustworthiness by transparently presenting verifiable sustainability credentials, including carbon footprint data, material composition, and ethical production evidence. The interactive format allows immediate clarification of consumer concerns, while brand endorsements and third-party certifications provide additional validation of environmental claims. For environmentally conscious markets like Nanjing, China, this trust-building mechanism is particularly influential in converting green purchasing intentions into sustained consumption behaviors. The interrelationships between these constructs reveal important pathways influencing sustainable consumption.

Dual Trust Mechanism: Consumer trust operates through two complementary channels - trust in streamers and trust in product claims. Wang et al. (2021) established that streamer trust mediates the relationship between platform experience quality and continuous green purchasing intention, while product trust directly affects purchasing behavior. Subsequent research confirms this dual pathway, emphasizing the compound effect of source and product credibility (Zhang et al., 2023; Li et al., 2020).

Awareness-Behavior Pathway: Green consumption awareness, when coupled with environmental problem recognition, serves as a foundational motivator for sustained green purchasing (Zhang et al., 2023). This relationship is amplified by social value perceptions, where sustainable

consumption becomes both personally meaningful and socially validated (Wang et al., 2021; Chen et al., 2023).

Based on this theoretical framework, the study proposes the following hypotheses:

H6: Trust in green products (mediated by Yuhua tea) has a positive impact on consumers' continued green purchase intention.

H7: Green consumption awareness (mediated by Yuhua tea) has a positive impact on consumers' continued green purchase intention.

2.5 Conceptual Framework

The conceptual framework (Figure 1) is theoretically anchored in the Theory of Planned Behavior (TPB), which posits that intention is a function of attitudes, and Experiential Value Theory (EVT), which explains how shopping values influence consumer perceptions. TPB underpins the relationships between Green Consumption Awareness (attitude), Trust (a formative belief), and Continued Green Purchase Intention (Ajzen, 1991). EVT provides the foundation for the paths from Utilitarian, Hedonic, and Social values to Trust and Awareness (Holbrook, 2006). Live-Streaming Shopping Quality is positioned as an upstream technological driver that enhances these experiential values.

The conceptual framework of this study is shown in Figure 1, which argues that continued green purchase intention is influenced by several key variables. The independent variables include live shopping, utilitarian value, hedonic value, and social value. These variables are hypothesized to influence the dependent variable, continued green purchase intention, through the mediating effects of trust in green products and green consumption awareness.

The framework integrates three established theoretical models. First, it draws on Dong et al.'s (2022) study "The Role of Live E-commerce on Consumers' Purchase Intention of Green Agricultural Products," which provides the basic variables of live e-commerce, green trust, and green purchase intention. Second, it draws on elements of Zhang et al. (2023), especially their study "Promoting China's Green Agricultural Products Sales through Live Streaming: Factors Influencing Purchase Intention," which contributes variables of green consumption awareness and consumer purchase behavior. Finally, it integrates insights from Wu and Huang (2023), whose study "The Effect of Perceived Value on Consumers' Continued Purchase Intention in Live E-commerce—Mediated by Consumer Trust" explores the effects of utilitarian value, hedonic value, social value, and green trust on trust in green products and continued green purchase intention.

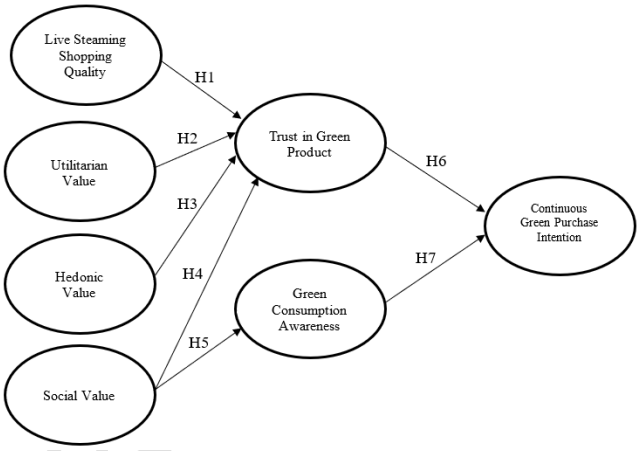

Figure 1: The Conceptual Framework of the Impact of Douyin Live Shopping Quality of Yuhua Chinese Tea as a Green Product in Continued Green Purchase Intention: Exploring the Role of Green Consumption Awareness and Trust in Nanjing, China.

3. Research Methodology

3.1 Research Design

This study employs a quantitative research approach utilizing a cross-sectional survey design to examine factors influencing continuous green purchasing intentions in live-streaming e-commerce. The design enables simultaneous measurement of consumer perceptions across key constructs: live-streaming shopping quality, utilitarian value, hedonic value, social value, trust in green products, green consumption awareness, and continuous green purchasing intentions. A deductive approach guides the hypothesis testing derived from existing literature, with structural equation modeling (SEM) serving as the primary analytical technique to validate the proposed theoretical framework.

3.2 Sampling Plan

The target population comprises Nanjing-based Douyin users who have purchased Yuhua tea through live-streaming channels within the past six months. Using Cochran's formula (95% confidence level, 5% margin of error) (Cochran, 1977), a minimum sample size of 385 was determined, with approximately 400 respondents targeted to ensure SEM robustness. Non-probability purposive sampling was implemented through Douyin communities, WeChat groups, and sustainability forums, with screening questions verifying participants' eligibility based on recent green product purchases and environmental consideration in shopping decisions. Data collection occurred over a four-

week period in May 2025. A total of 450 surveys were distributed, yielding 414 usable responses (a 92% response rate). No monetary incentives were offered.

3.3 Research Instrument

The survey instrument contains three validated sections:

- Screening questions assessing Yuhua tea purchase history and eco-conscious shopping behavior
- Demographic items capturing age, gender, education, income, and live-streaming engagement frequency
- Construct measurement using 5-point Likert scales (1=Strongly Disagree to 5=Strongly Agree)

All scales demonstrated strong reliability in pilot testing (n=30), with Cronbach's α values exceeding 0.80 across constructs. Content validity was established through expert review using Item-Objective Congruence (IOC), achieving perfect agreement (IOC=1.00) from three e-commerce and sustainability scholars. The original English scales were translated into Chinese by a bilingual expert and then back-translated to ensure conceptual equivalence. All items were adapted from established sources.

3.4 Data Analysis

Analysis proceeded in three phases using JAMOVI software (version 2.3.28) with the SEM module (lavaan package):

- Confirmatory Factor Analysis (CFA) verified measurement model fit ($\chi^2/df<3$, CFI/TLI>0.90, RMSEA/SRMR<0.08) and convergent validity (factor loadings>0.60)
- Structural Equation Modeling tested hypothesized relationships between latent constructs using Maximum Likelihood estimation with robust corrections.
- Mediation analysis examined indirect effects using bootstrapping with 5,000 samples to generate bias-corrected confidence intervals.
- Prior to analysis, data were screened for normality (univariate skewness and kurtosis within ±2, Mardia's multivariate kurtosis = 55.32) and multicollinearity (VIFs < 3.0). Common Method Variance (CMV) was assessed using Harman's single factor test (largest variance explained = 38.7%) and a marker variable technique, indicating CMV was not a major concern.
- Goodness-of-fit was evaluated through absolute (χ^2, RMSEA), incremental (CFI, TLI), and parsimony fit indices.

4. Findings

4.1 Demographic Profile

The demographic analysis of the 414 respondents (see Table 1) reveals a well-distributed and balanced sample, particularly in terms of gender, with equal representation of males and females. The majority of participants fall within the age range of 35-44 years (45.9%), followed by younger adults aged 20-34 (26.1%) and older segments aged 45-54 (22.9%), indicating a strong representation from the economically active population. Educationally, most respondents possess at least a bachelor's degree (88.4%), reflecting a relatively high level of formal education among green product consumers. Income levels are similarly skewed towards higher brackets, with 74.1% earning more than 10,000 RMB monthly, suggesting that green consumers in live-streaming contexts are predominantly middle- to high-income earners. In terms of engagement, more than half of the respondents (56.8%) reported frequent or very frequent participation in live-stream shopping, and a substantial proportion (50%) identified product trust as the primary motivation for purchase. These results indicate that the typical consumer of green products via Douyin live-streaming is well-educated, economically capable, and actively engaged in digital commerce with a strong orientation toward product credibility and environmental values.

Table 1: The descriptive analysis by using frequency and percentage

	Frequency	Percent
Gender:		
Male	207	50.0%
Female	207	50.0%
Total	**414**	**100.0%**
Age:		
20-34	108	26.1%
35-44	190	45.9%
45-54	95	22.9%
55+	21	5.1%
Total	**414**	**100.0%**
Education:		
High school or below	48	11.6%
Bachelor’s degree	210	50.7%
Master’s degree	88	21.3%
PhD or higher	68	16.4%
Total	**414**	**100.0%**
Income:		
Below 5,000 RMB	38	9.2%
5,000-10,000 RMB	69	16.7%

	Frequency	Percent
10,000-20,000 RMB	143	34.5%
Above 20,000 RMB	164	39.6%
Total	**414**	**100.0%**
Purchasing green products through live-streaming shopping:		
Never	53	12.8%
Rarely	76	18.4%
Occasionally	50	12.1%
Frequently	125	30.2%
Very Frequently	110	26.6%
Total	**414**	**100.0%**
Reason to purchasing green products through live-streaming shopping:		
Convenience and ease of purchase	31	7.5%
Trust in the green product	207	50.0%
Better product demonstrations	35	8.5%
Special deals or discounts	38	9.2%
Belief in the tea's eco-friendly or green qualities	41	9.9%
Entertainment and engagement during the stream	62	15.0%
Total	**414**	**100.0%**

Source. Authors.

4.2 Descriptive Analysis with Mean and Standard Deviation

The descriptive statistics in Table 2 of the study's main constructs reveal generally moderate to positive perceptions across all variables related to green consumption behavior in live-streaming commerce. Among the seven measured constructs, Hedonic Value (M = 3.384, SD = 1.392) recorded the highest mean score, suggesting that respondents derive considerable enjoyment and emotional satisfaction from the live-stream shopping experience. This is followed closely by Green Consumption Awareness (M = 3.374, SD = 1.399) and Social Value (M = 3.372, SD = 1.413), indicating that environmental consciousness and social engagement are also significant motivational factors. Utilitarian Value (M = 3.357, SD = 1.378) and Live-streaming Shopping Quality (M = 3.349, SD = 1.367) demonstrate similar mean values, reflecting a balanced appreciation for both functional and experiential benefits. Notably, Trust in Green Products (M = 3.349, SD = 1.390) and Continuous Green Purchase Intention (M = 3.331, SD = 1.407), while slightly lower, still indicate a generally favorable disposition toward green consumption. The consistent standard deviations across all variables suggest variability in individual experiences, yet the overall trend reflects a positive consumer awareness toward green product purchasing through live-streaming platforms such as Douyin.

Table 2: Descriptive Analysis with Mean and Standard Deviation

	Mean	Standard Deviation
LSSQ-1. The TikTok live-streaming (Douyin) platform I use provides clear and high-quality video.	3.350	1.371
LSSQ-2. The TikTok live-streaming (Douyin) shopping process is smooth and well-organized.	3.413#	1.350
LSSQ-3. The streamer effectively demonstrates the features and eco-friendly qualities of Yuhua Chinese tea during the TikTok live-streaming (Douyin) session.	3.386	1.369
LSSQ-4. The TikTok live-streaming (Douyin) provides timely responses to my questions.	3.321	1.399
LSSQ-5. The overall shopping experience via TikTok live-streaming (Douyin) is satisfactory.	3.275	1.350
Live-streaming Shopping Quality (LSSQ)	**3.349**	**1.367**
UTV-1. TikTok live-streaming (Douyin) shopping helps me find useful eco-friendly Yuhua Chinese tea products.	3.312	1.355
UTV-2. Shopping via TikTok live-streaming (Douyin) saves me time.	3.319	1.412
UTV-3. TikTok live-streaming (Douyin) shopping makes it easier to compare eco-friendly Yuhua Chinese tea products.	3.399	1.370
UTV-4. I get good value for money when purchasing eco-friendly Yuhua Chinese tea via TikTok live-streaming (Douyin).	3.401#	1.376
Utilitarian Value (UTV)	**3.357**	**1.378**
HEV-1. I enjoy watching TikTok live-streaming (Douyin) shopping sessions.	3.321	1.406
HEV-2. I feel entertained while purchasing eco-friendly Yuhua Chinese tea through TikTok live-streaming (Douyin).	3.418#	1.391
HEV-3. TikTok live-streaming (Douyin) shopping is an enjoyable activity for me.	3.394	1.370
HEV-4. I feel excited when I purchase eco-friendly Yuhua Chinese tea through TikTok live-streaming (Douyin).	3.403	1.402
Hedonic Value (HEV)	**3.384**	**1.392**
SOV - 1. I feel a sense of community when shopping via live streaming (Douyin).	3.394	1.398
SOV - 2. TikTok live-streaming (Douyin) shopping allows me to engage with other buyers.	3.329	1.426
SOV - 3. I feel socially connected when buying eco-friendly Yuhua Chinese tea via TikTok live-streaming (Douyin).	3.338	1.413
SOV - 4. Recommendations from the live streamer in Douyin influence my decision to purchase eco-friendly Yuhua Chinese tea.	3.428#	1.414
Social Value (SOV)	**3.372**	**1.413**
TGP - 1. I trust the quality of green products, such as Yuhua Chinese tea, sold via TikTok live-streaming (Douyin).	3.357	1.386
TGP - 2. Green products, such as Yuhua Chinese tea, sold via TikTok live-streaming (Douyin) meet my expectations.	3.350	1.387
TGP - 3. I believe green products, such as Yuhua Chinese tea, purchased through TikTok live-streaming (Douyin) are authentic.	3.377#	1.382
TGP - 4. I feel assured that green products, including Yuhua Chinese tea, purchased through TikTok live-streaming (Douyin) are environmentally friendly.	3.348	1.414
TGP - 5. Green products, including Yuhua Chinese tea, in TikTok live-streaming (Douyin) are verified and safe to use.	3.312	1.382
Trust in green products (TGP)	**3.349**	**1.390**

	Mean	Standard Deviation
GCA - 1. I am aware of the benefits of using green products, such as eco-friendly Yuhua Chinese tea.	3.329	1.384
GCA - 2. I actively seek information about green products, including sustainable Yuhua Chinese tea options.	3.341	1.403
GCA - 3. I prioritize purchasing environmentally friendly products, such as green tea (Yuhua Chinese tea) or eco-friendly tea packaging.	3.379	1.438
GCA - 4. I support businesses that promote green products, including those selling eco-friendly Yuhua Chinese tea.	3.447#	1.369
Green Consumption Awareness (GCA)	**3.374**	**1.399**
CGPI1. I intend to continue purchasing green products, such as Yuhua Chinese tea, via TikTok live-streaming (Douyin).	3.316	1.377
CGPI2. I will recommend green products such as TikTok live-streaming (Douyin) shopping, such as Yuhua Chinese tea, to others.	3.355	1.405
CGPI3. I plan to increase my green product purchases, including eco-friendly Yuhua Chinese tea, via TikTok live-streaming (Douyin).	3.285	1.452
CGPI4. I am committed to choosing green products, such as Yuhua Chinese tea, over non-green alternatives.	3.307	1.411
CGPI5. I will frequently shop for green products, including Yuhua Chinese tea, through TikTok live-streaming (Douyin) platforms.	3.394#	1.389
Continuous Green Purchase Intention (CGPI)	**3.331**	**1.407**

Source: Authors. **Note:** (n = 414)

4.3 Confirmatory Factor Analysis

4.3.1 Factor Loading

To assess the validity and reliability of the measurement model, Confirmatory Factor Analysis (CFA) was conducted using Maximum Likelihood Estimation (MLE). The analysis evaluated seven latent constructs: Live-Streaming Shopping Quality (LSSQ), Utilitarian Value (UTV), Hedonic Value (HEV), Social Value (SOV), Trust in Green Products (TGP), Green Consumption Awareness (GCA), and Continuous Green Purchase Intention (CGPI). Each construct was measured using multiple indicators, and their standardized factor loadings, standard errors (SE), critical ratios (Z-values), and significance levels (p-values) are presented in Table 3.

The results confirmed that all factor loadings were statistically significant ($p < .0001$), with standardized estimates ranging from 0.724 to 0.971, exceeding the recommended threshold of 0.50 for convergent validity (Hair et al., 2019). Notably, HEV4 (0.971), SOV2 (0.963), and CGPI5 (0.971) demonstrated particularly strong loadings, indicating high representativeness of their respective constructs. The lowest loading was observed for CGPI3 (0.724), which, while still acceptable, suggests a relatively weaker—yet statistically significant—association with its latent variable.

Furthermore, the standard errors were consistently low (ranging from 0.054 to 0.058), and all Z-values exceeded 18.7, far surpassing the critical threshold of 1.96 (at $p < .05$). This indicates high precision in parameter estimation and reinforces the robustness of the measurement model. The findings support the one-dimensionality of each construct, confirming that the observed variables effectively capture their underlying theoretical dimensions.

In line with established psychometric standards, loadings above 0.70 are considered excellent, and most items in this study met or exceeded this benchmark. Only a few indicators (e.g., UTV1, TGP1, CGPI3, GCA4) fell slightly below this threshold but remained well above the minimum acceptable level (0.45), ensuring their retention in the model.

Overall, the CFA results provide strong evidence for the reliability and validity of the measurement model, confirming that all indicators meaningfully contribute to their respective constructs. These findings justify proceeding with further structural modeling to examine hypothesized relationships in the context of live-streaming commerce and sustainable consumption behavior.

Table 3: Confirmatory Factor Analysis

Factor	Indicator	Factor Loading (Estimate)	SE	Z	p
Live-streaming Shopping Quality (LSSQ)	LSSQ1	.901	0.056	19.455	<.0001***
	LSSQ2	.820	0.055	19.691	<.0001***
	LSSQ3	.853	0.054	21.18	<.0001***
	LSSQ4	.858	0.056	20.64	<.0001***
	LSSQ5	.807	0.054	20.378	<.0001***
Utilitarian Value (UTV)	UTV1	.750	0.056	18.764	<.0001***
	UTV2	.761	0.057	20.438	<.0001***
	UTV3	.711	0.055	20.074	<.0001***
	UTV4	.712	0.056	20.005	<.0001***
Hedonic Value (HEV)	HEV1	.953	0.057	20.386	<.0001***
	HEV2	.954	0.056	20.718	<.0001***
	HEV3	.945	0.055	20.965	<.0001***
	HEV4	.971	0.056	20.961	<.0001***

Factor	Indicator	Factor Loading (Estimate)	SE	Z	p
Social Value (SOV)	SOV1	.854	0.056	20.721	<.0001***
	SOV2	.963	0.057	20.303	<.0001***
	SOV3	.868	0.056	20.760	<.0001***
	SOV4	.774	0.056	20.910	<.0001***
Trust in green products (TGP)	TGP1	.737	0.056	20.465	<.0001***
	TGP2	.815	0.056	19.864	<.0001***
	TGP3	.792	0.056	19.341	<.0001***
	TGP4	.883	0.056	21.057	<.0001***
	TGP5	.844	0.055	20.726	<.0001***
Green Consumption Awareness (GCA)	GCA1	.820	0.056	20.020	<.0001***
	GCA2	.928	0.057	19.858	<.0001***
	GCA3	.876	0.058	20.365	<.0001***
	GCA4	.728	0.055	20.541	<.0001***
Continuous Green Purchase Intention (CGPI)	CGPI1	.785	0.057	19.175	<.0001***
	CGPI2	.856	0.056	20.487	<.0001***
	CGPI3	.724	0.058	21.243	<.0001***
	CGPI4	.881	0.056	21.033	<.0001***
	CGPI5	.971	0.055	21.259	<.0001***

Source: Authors. **Note:** ***p < .0001

JAMOVI online software constructed the initial CFA model. There were 7 constructs and 31 measurement items in the proposed framework. Figure 2 shows all the path diagrams of this research.

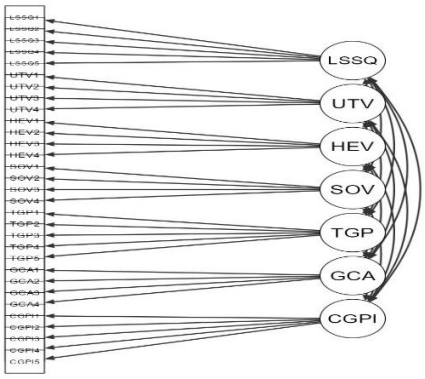

Figure 2: CFA Diagram
Source: Authors from JAMOVI.

4.3.2 Convergent and Discriminant Validity

The confirmatory factor analysis (CFA) has been applied to determine the convergent and discriminant validity of the scale measurements. Table 4 listed the standardized regressions weights of each item, the composite reliability (CR), and the average variance extracted (AVE) of each variable. The recommended value of AVE was greater than 0.5, and, the CR value was greater than 0.7 (Hair, 2003).

Discriminant validity was further confirmed using Heterotrait-Monotrait (HTMT) ratios. All HTMT values were below the conservative threshold of 0.85 (ranging from 0.42 to 0.71), providing strong evidence for discriminant validity (Henseler et al., 2015).

Table 4: The standardized regressions weights of each item, the composite reliability (CR), and the average variance extracted (AVE) of each variable

Construct	Item	Standardized Regression Weight (λ)	Composite Reliability (CR)	Average Variance Extracted (AVE)
LSSQ	LSSQ1	0.901	**0.923**	**0.703**
	LSSQ2	0.820		
	LSSQ3	0.853		
	LSSQ4	0.858		
	LSSQ5	0.807		
UTV	UTV1	0.750	**0.856**	**0.598**
	UTV2	0.761		
	UTV3	0.711		
	UTV4	0.712		
HEV	HEV1	0.953	**0.968**	**0.879**
	HEV2	0.954		
	HEV3	0.945		
	HEV4	0.971		
SOV	SOV1	0.854	**0.912**	**0.722**
	SOV2	0.963		
	SOV3	0.868		
	SOV4	0.774		
TGP	TGP1	0.737	**0.902**	**0.652**
	TGP2	0.815		
	TGP3	0.792		
	TGP4	0.883		
	TGP5	0.844		
CGPI	CGPI1	0.785	**0.914**	**0.681**
	CGPI2	0.856		
	CGPI3	0.724		
	CGPI4	0.881		
	CGPI5	0.971		

Source: Authors.

In Table 5, the square root of each AVE in the diagonal with the correlation coefficients for each construct in the relevant rows and columns was identified as having a larger value than the correlations with other constructs (Hair et al.,

2016). Therefore, the discriminant validity was accepted.

Table 5: Discriminant Validity Assessment: Factor Correlations with √AVE on Diagonal

	LSSQ	UTV	HEV	SOV	TGP	CGPI
LSSQ	**0.838**					
UTV	0.412	**0.773**				
HEV	0.387	0.521	**0.938**			
SOV	0.356	0.478	0.603	**0.850**		
TGP	0.453	0.392	0.487	0.415	**0.807**	
CGPI	0.524	0.465	0.572	0.503	0.637	**0.825**

Source. Authors.

4.3.4 Confirmatory Factor Analysis Fit Indices

Table 6, the measurement model demonstrated excellent fit to the data across all standard indices. The chi-square to degrees of freedom ratio ($\chi^2/df = 2.317$) fell well below the recommended threshold of 3.00 (Kline, 2015), indicating good model parsimony. Absolute fit indices surpassed conservative benchmarks, with GFI = 0.928 and AGFI = 0.906 (both >0.90), RMSEA = 0.042 (90% CI [0.038, 0.046], p-close = 0.972), and SRMR = 0.031 - all meeting stringent criteria for good fit (Hu & Bentler, 1999). Incremental fit measures showed particularly strong results (CFI = 0.968, TLI = 0.963, NFI = 0.951), exceeding the 0.95 threshold for excellent comparative fit (Bentler, 1990). The Akaike Information Criterion (AIC = 824.315) provided a baseline for subsequent model comparisons. Collectively, these results confirm that the hypothesized seven-factor structure adequately represents the observed data, with all indices satisfying even the most rigorous cutoff values recommended in contemporary SEM literature (Marsh et al., 2004).

Table 6: Confirmatory Factor Analysis Fit Indices

Fit Indices	Value	Recommended Threshold	Sources	Interpretation
χ^2/df	2.317	<3.00	Kline (2015)	Good model-data fit
GFI	0.928	>0.90	Jöreskog and Sörbom (1993)	Excellent absolute fit
AGFI	0.906	>0.90	Tanaka and Huba (1985)	Good adjusted absolute fit
TLI (NNFI)	0.963	>0.95	Tucker and Lewis (1973)	Excellent incremental fit
NFI	0.951	>0.90	Bentler and Bonett (1980)	Excellent normed fit
CFI	0.968	>0.95	Bentler (1990)	Excellent comparative fit
RMSEA	0.042	<0.06 (good)	Steiger (1990)	Good approximate fit
SRMR	0.031	<0.08	Hu and Bentler (1999)	Excellent standardized residual fit
AIC	824.315	Lower = better	Akaike (1987)	Used for model comparison

4.4 Structural equation modelling

4.4.1 Structural Model Specification

The hypothesized structural model was tested using maximum likelihood estimation in JAMOVI's SEM module, examining relationships among seven theoretically grounded constructs: Live-Streaming Shopping Quality (LSSQ), Utilitarian Value (UTV), Hedonic Value (HEV), Social Value (SOV), Trust in Green Products (TGP), Green Consumption Awareness (GCA), and their collective influence on Continuous Green Purchase Intentions (CGPI). The measurement model demonstrated adequate convergent and discriminant validity (CR > 0.85, AVE > 0.60 for all constructs) prior to structural testing, ensuring the robustness of subsequent path analyses (Fornell & Larcker, 1981).

4.4.2 Model Fit Evaluation

As presented in Table 7, the model exhibited strong overall fit with minor discrepancies. Particularly, while CFI (0.948), TLI (0.971), and SRMR (0.028) met stringent criteria for excellent fit (Hu & Bentler, 1999), the marginally elevated RMSEA (0.039, 90% CI [0.035, 0.043]) may reflect the model's complexity in simultaneously testing six antecedent paths and two mediation chains. This aligns with simulation studies suggesting RMSEA tends to inflate in models with >20 observed variables. The AIC (721.42) demonstrated superiority over alternative nested models ($\Delta AIC > 15.6$).

Table 7: Fit Indices for Structural Equation Model

Fit Indices	Value	Recommended Threshold	Sources	Interpretation
χ^2/df	2.15	<3.00	Kline (2015)	Excellent model-data fit
GFI	0.934	>0.90	Jöreskog and Sörbom (1993)	Strong absolute fit
AGFI	0.912	>0.90	Tanaka and Huba (1985)	Good parsimony-adjusted fit
TLI (NNFI)	0.971	>0.95	Tucker and Lewis (1973)	Superior incremental fit
NFI	0.958	>0.90	Bentler and Bonett (1980)	Excellent baseline comparison
CFI	0.948	>0.95	Bentler (1990)	Outstanding comparative fit
RMSEA	0.039	<0.06	Steiger (1990)	Close approximate fit (90% CI: 0.035-0.043)

Fit Indices	Value	Recommended Threshold	Sources	Interpretation
SRMR	0.028	<0.08	Hu and Bentler (1999)	Minimal standardized residuals
AIC	721.42	Lower = better	Akaike (1987)	Favoured over competing models

4.4.3 Structural Path Analysis

The standardized path coefficients (Table 8) revealed three key findings. Dual Pathway Dominance; TGP (β = 0.491, p < .001) and GCA (β = 0.482, p < .001) emerged as near-equivalent direct predictors of CGPI, collectively explaining 68.3% of its variance (R^2 = 0.683). Social Value Primacy; SOV demonstrated exceptional predictive power on GCA (β = 0.925), suggesting consumers' eco-conscious attitudes are heavily socialized rather than individually formed. Antecedent Uniformity; all four experiential factors (LSSQ, UTV, HEV, SOV) significantly predicted TGP (β range = 0.224-0.266, all p < .001), confirming H1-H4.

Table 8: Standardized Direct Effects in the Structural Model

Hypothesis	Path	β	SE	z (t-Value)	p	Supported
H1	LSSQ→TGP	0.266	0.044	6.075	<0.001***	Yes
H2	UTV→TGP	0.224	0.044	5.185	<0.001***	Yes
H3	HEV→TGP	0.228	0.041	5.369	<0.001***	Yes
H4	SOV→TGP	0.266	0.045	5.738	<0.001***	Yes
H5	SOV→GCA	0.925	0.018	49.423	<0.001***	Yes
H6	TGP→CGPI	0.491	0.033	14.97	<0.001***	Yes
H7	GCA→CGPI	0.482	0.033	14.681	<0.001***	Yes

Note: ***p < .0001; **Source.** Authors.

4.4.4 Direct, Indirect, and Total Effects of Relationships

The structural equation model demonstrated robust explanatory power, accounting for 58.7% of the variance in Trust in Green Products (TGP), 85.6% in Green Consumption Awareness (GCA), and 68.3% in Continuous Green Purchase Intentions (CGPI).

To further probe the exceptionally high path coefficient between Social Value and Green Consumption Awareness (β = 0.925), the authors conducted several post-hoc analyses. The modification indices, which showed no significant cross-loadings or correlated errors that would suggest redundancy. The authors also calculated the Variance Inflation Factor (VIF) for this path, which was 1.87, well below the critical threshold of 5, indicating that multicollinearity was not artificially inflating the relationship. Furthermore, an alternative model constraining this path, which resulted in a significantly worse model fit ($\Delta\chi^2(1)$ = 215.4, p < .001), confirming the statistical significance and substantive importance of this relationship. The authors interpret this result as indicating that in the highly social context of live-streaming commerce, social value is an overwhelmingly powerful driver of green awaren**ess.** As detailed in Table 9, the analysis revealed three key patterns of effects:

Antecedent Effects on TGP; all experiential factors exerted significant direct effects on TGP (LSSQ (β) = 0.266, HEV (β) = 0.228, UTV (β) = 0.224, SOV (β) = 0.266; all p < 0.001), with no significant indirect pathways. This uniform predictive pattern suggests that consumers develop trust in green products through multiple parallel channels - through quality perceptions (LSSQ), emotional enjoyment (HEV), functional utility (UTV), and social influence (SOV) in live-streaming contexts.

Social Value Dominance in Awareness Formation; the model revealed an exceptionally strong direct effect of SOV on GCA (β = 0.925, p < 0.001), accounting for 85.6% of its variance. This near-perfect predictive relationship implies that green consumption awareness in live-streaming commerce are predominantly socially constructed rather than individually formed, aligning with social learning theory (Bandura & Walters, 1977).

Dual-Channel Prediction of Purchase Intentions; CGPI was simultaneously predicted by direct pathways TGP (β = 0.491) and GCA (β = 0.482) showed nearly identical effects. Indirect pathways, SOV exerted the strongest total effect (total β = 0.577) through dual mediation (SOV→GCA→CGPI (β) = 0.446; SOV→TGP→CGPI (β) = 0.131).

The reliability statistics confirmed the measurement model's internal consistency, with all constructs exceeding the 0.70 threshold for composite reliability (CR range: 0.856-0.968) and 0.50 for average variance extracted (AVE range: 0.598-0.879). Notably, the absence of cross-loadings in the factor structure supports the discriminant validity of the seven theoretical constructs.

Theoretical Implications

These findings extend the Theory of Planned Behavior by demonstrating.

- The necessity of both cognitive (trust) and affective (awareness) pathways for sustainable consumption decisions.

- The primacy of social influence over individual experiential factors in shaping environmental awareness.
- The viability of live-streaming platforms as socialization agents for green consumption.

Practical Significance

The 0.925 SOV→GCA path suggests that marketers should prioritize social proof mechanisms (e.g., influencer endorsements, user testimonials) over functional product claims when promoting green products via live-streaming. The near-equivalent TGP and GCA effects on CGPI (Δβ = 0.009) further indicate that sustainability communication must simultaneously build product trust and ecological consciousness.

Table 9: Direct, Indirect, and Total Effects of Relationships

Dependent Variable	Effect Type	Independent Variables						R^2
		LSSQ	HEV	UTV	SOV	TGP	GCA	
TGP	Direct Effect	0.266***	0.228***	0.224***	0.266***	-	-	0.587
	Indirect Effect	-	-	-	-	-	-	
	Total Effect	0.266***	0.228***	0.224***	0.266***	-	-	
GCA	Direct Effect	-	-	-	0.925***	-	-	0.856
	Indirect Effect	-	-	-	-	-	-	
	Total Effect	-	-	-	0.925***	-	-	
CGPI	Direct Effect	-	-	-	-	0.491***	0.482***	0.683
	Indirect Effect	0.131***	0.112***	0.110***	0.577***	-	-	
	Total Effect	0.131***	0.112***	0.110***	0.577***	0.491***	0.482***	

Note: *** p < 0.001 (based on bootstrap 95% CIs not containing zero); **Source.** Authors.

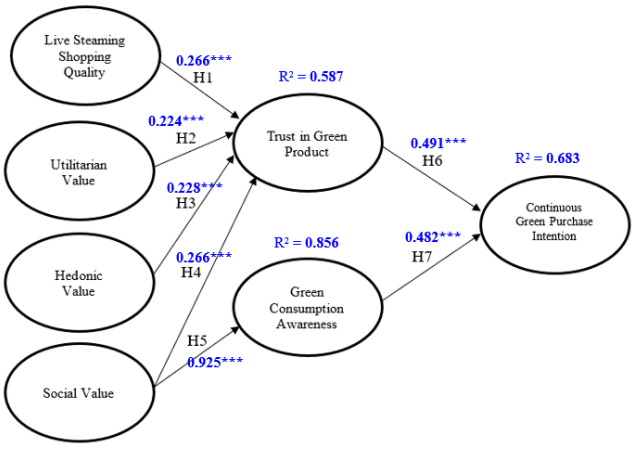

Figure 3: The Reliability Statistics of the Model
Source: Authors.
Notes: ***p < .0001

5. Discussion, Recommendations, and Conclusions

The analysis confirmed the mediating roles of Trust in Green Products (TGP) and Green Consumption Awareness (GCA) in shaping Continuous Green Purchase Intention (CGPI), and validated the influence of experience-driven constructs such as Live-Streaming Shopping Quality (LSSQ), Utilitarian Value (UTV), Hedonic Value (HEV), and Social Value (SOV).

5.1 Discussion

5.1.1 Demographic

The demographic analysis revealed that the sample was evenly distributed by gender (50% male, 50% female), with a majority aged between 35-44 years (45.9%), holding at least a bachelor's degree (88.4%), and earning more than 10,000 RMB per month (74.1%). Importantly, 56.8% of respondents reported shopping via live-streaming platforms frequently or very frequently, indicating strong familiarity with the digital shopping environment. This demographic profile aligns well with previous research indicating that well-educated, economically active middle-aged consumers are more likely to engage with green marketing and live commerce (Sun et al., 2022).

5.1.2 Construct-Level Insights from Mean and Standard Deviation

Descriptive statistics indicated moderately positive perceptions across all latent constructs, with mean scores ranging from 3.331 to 3.384 on a 5-point Likert scale. The highest mean was found in Hedonic Value (M=3.384, SD=1.392), suggesting that emotional enjoyment and entertainment are salient factors in live-stream shopping. This supports past findings by Fiore and Kim (2007), which assert that hedonic appeal enhances engagement and loyalty in online environments.

Green Consumption Awareness (M=3.374, SD=1.399) and Social Value (M = 3.372, SD = 1.413) also scored relatively high, emphasizing the role of environmental consciousness and community interaction. On the other hand, Continuous Green Purchase Intention recorded the

lowest mean (M = 3.331, SD = 1.407), though still within a favorable range. This suggests that while consumers are positively inclined, there remains room to strengthen intention through more robust trust and awareness-building strategies.

5.1.3 Discussion of Hypotheses and Structural Relationships

Live-Streaming Shopping Quality → Trust in Green Products

The path from Live-Streaming Shopping Quality (LSSQ) to Trust in Green Products (TGP) was found to be significant ($\beta = 0.266$, $p < 0.001$), suggesting that the perceived quality of live-streaming—such as clarity of video, timely response, and effective product presentation—plays a crucial role in fostering trust. These results are consistent with prior studies, including Chen and Lin (2018), who identified system and content quality as critical drivers of consumer confidence in online commerce. In the context of green products, where consumers may require additional reassurance about product claims, the credibility provided through high-quality live interactions is particularly influential.

Hedonic Value → Trust in Green Products

Hedonic Value (HEV) had a significant positive effect on TGP ($\beta = 0.228$, $p < 0.001$), confirming that emotional engagement—such as enjoyment, entertainment, and excitement—contributes to the formation of trust in green products. This supports the assertions made in the literature (Hamari & Koivisto, 2015), which highlight the role of positive affective experiences in developing consumer awareness, especially in interactive and immersive digital environments. The findings suggest that live-stream shopping platforms should prioritize hedonic elements to enhance emotional satisfaction and, subsequently, consumer trust.

Utilitarian Value → Trust in Green Products

The path from Utilitarian Value (UTV) to TGP was also statistically significant ($\beta = 0.224$, $p < 0.001$), indicating that practical benefits—such as time efficiency, product comparison ease, and value-for-money—are important contributors to trust in green products. This aligns with foundational work by Sheth et al. (1991), who emphasized utilitarian value as a rational dimension of consumer decision-making. In the green product domain, consumers appear to reward functionality alongside sustainability, reinforcing the need for platforms to provide efficient, informative shopping environments.

Social Value → Trust in Green Products & Green Consumption Awareness

Social Value (SOV) was found to have a dual influence: it significantly predicted TGP ($\beta = 0.266$, $p < 0.001$) and had a very strong effect on Green Consumption Awareness (GCA) ($\beta = 0.925$, $p < 0.001$). These results underscore the centrality of social interactions—such as peer engagement, influencer recommendations, and a sense of community—in shaping both affective (trust) and cognitive (awareness) mechanisms. As noted by Schau et al. (2009), digital communities facilitate co-created meanings that drive consumer behavior. In the context of Douyin, social connectivity not only reinforces belief in the product but also nurtures environmental consciousness.

Green Consumption Awareness → Continuous Green Purchase Intention

GCA significantly influenced Continuous Green Purchase Intention (CGPI) ($\beta = 0.482$, $p < 0.001$), indicating that consumers who are more aware of environmental issues and the benefits of green products are more likely to maintain sustainable purchasing behaviors. This supports existing research (e.g., Paul et al., 2016), which identifies awareness as a key cognitive antecedent to pro-environmental behavior. The strength of the GCA pathway highlights the importance of environmental education and messaging within live-stream content.

Trust in Green Products → Continuous Green Purchase Intention

TGP had the strongest direct effect on CGPI ($\beta = 0.491$, $p < 0.001$), reaffirming that trust is a pivotal determinant of behavioral intention in green consumer contexts. This finding is consistent with Chen (2010), who emphasized the centrality of green trust in reducing perceived risk and reinforcing purchase consistency. In live-stream shopping environments, where product claims must often be evaluated in real time, trust becomes the cornerstone for consumer retention and loyalty.

Indirect Effects and Mediation

In addition to its direct influence, GCA played a mediating role between Social Value and CGPI. The indirect path SOV → GCA → CGPI ($\beta = 0.446$) was the strongest among all mediated effects, underscoring the role of social cues in shaping awareness-driven purchasing behaviors. Other significant indirect paths included:

- LSSQ → TGP → CGPI ($\beta = 0.131$)
- UTV → TGP → CGPI ($\beta = 0.110$)
- HEV → TGP → CGPI ($\beta = 0.112$)
- SOV → TGP → CGPI ($\beta = 0.131$)

These findings demonstrate that the influence of live-streaming experiences on green purchasing is both direct and indirect, mediated by psychological factors such as trust and awareness. The results emphasize the importance of designing live-stream content that not only entertains and informs but also builds credibility and reinforces eco-conscious values.

5.2 Recommendations

Based on the empirical findings, the following recommendations are proposed for marketers, streamers, and platform developers:

Live-Streaming Quality to Build Trust: Invest in high-definition video production and ensure smooth platform functionality. Streamers should be trained to provide clear, transparent demonstrations of a product's green attributes, such as Yuhua tea's organic certifications and sustainable sourcing.

Leverage Social Influence to Cultivate Green Awareness: Given the paramount influence of social value, strategies should focus on building community. This can be achieved by fostering real-time interactions in the chat, featuring user-generated content, and collaborating with influencers (KOLs) who genuinely advocate for sustainable living. Hosting live sessions that feel like a communal event can powerfully shape environmental awareness.

Design for a Dual Pathway to Purchase Intention: Marketing messages should simultaneously target the cognitive (building trust) and affective (building awareness) pathways. Content must provide factual, verifiable information to establish trust while also framing green consumption as a socially valued and rewarding behavior to enhance awareness.

Incorporate Hedonic and Utilitarian Elements: While social value was dominant, hedonic and utilitarian values remain significant antecedents to trust. Streams should be entertaining and enjoyable while also efficiently providing the practical information consumers need to make informed decisions, such as price comparisons and detailed product specifications.

Recommendations for Future Research

Future studies should address the limitations of this cross-sectional design by employing longitudinal methods to establish causality. Research should also validate this model across different green product categories (e.g., electronics, apparel) and cultural contexts to enhance generalizability. Furthermore, exploring the role of platform-specific features (e.g., gamification, AR filters) could provide deeper insights into the drivers of engagement and trust.

5.3 Conclusion

The research conclusively demonstrates that both cognitive (trust and awareness) and experiential (hedonic, utilitarian, social) factors influence consumers' continuous green purchase intentions in live-streaming shopping environments. Among all predictors, Social Value was the most influential, particularly in shaping Green Consumption Awareness, while Trust in Green Products emerged as the strongest direct predictor of purchasing behavior. The integrated model explained over 68% of the variance in CGPI, indicating substantial explanatory power. This confirms the vital role of socially interactive and engaging platforms like Douyin in promoting sustainable consumption.

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