

Research Article

**THE MEDIATING ROLE OF PRODUCT TRUST IN LINKING VALUE CHAIN MANAGEMENT
AND GREEN CONSUMPTION INTENTION: EVIDENCE FROM GUANGXI, CHINA**

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Abstract

This study addresses the gap between environmental awareness and actual green consumption behavior, particularly in emerging markets where trust and supply chain transparency remain critical. It examines the effects of value chain management and chain trust on product trust and investigates how these factors influence green consumption intention, with product trust as a mediating variable. A quantitative design was employed using a structured questionnaire administered to 400 consumers in Guangxi Zhuang Autonomous Region, China. Purposive and convenience sampling were applied. All constructs were measured using a five-point Likert scale, and data were analyzed using Structural Equation Modeling (SEM).

The results show that value chain management ($\beta = 0.63$, $p < 0.001$) and chain trust ($\beta = 0.51$, $p < 0.001$) significantly affect product trust, which in turn influences green consumption intention ($\beta = 0.48$, $p < 0.001$). Both value chain management ($\beta = 0.28$, $p < 0.001$) and chain trust ($\beta = 0.26$, $p < 0.001$) also have direct effects. Mediation analysis confirms the significant mediating role of product trust. These findings highlight the importance of operational capabilities and trust mechanisms in promoting sustainable consumer behavior.

Keywords: Value Chain Management, Chain Trust, Product Trust, Green Consumption, Structural Equation Modeling

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Introduction

In recent decades, the rapid expansion of industrialization and global consumption has intensified environmental challenges, leading to increased attention toward sustainable consumption practices. Among these, green consumption has emerged as a critical behavioral approach in which consumers deliberately select products that minimize environmental impact and promote sustainability. However, despite rising environmental awareness, a persistent gap remains between consumers' pro-environmental attitudes and their actual purchasing behavior, particularly in emerging markets.

One key explanation for this attitude-behavior gap lies in the issue of trust. Consumers often face uncertainty regarding the authenticity, quality, and environmental claims of green products, especially in complex market environments where production processes lack transparency (Chen et al., 2020). In this context, product trust as consumers' confidence in a product's reliability, safety, and environmental credibility-plays a crucial role in reducing perceived risk and facilitating green consumption intention.

At the same time, the evolution of modern supply chains has shifted scholarly attention toward the structural foundations of trust. Value chain management (VCM), which encompasses the coordination, flexibility, and resilience of activities across the supply chain, serves as an important signal of organizational capability and operational transparency. Similarly, chain trust, reflecting the reliability and credibility among supply chain partners, contributes to system-level trust that can shape consumer perceptions. These structural factors are increasingly recognized as important antecedents of trust formation in contemporary markets (Chen et al., 2020).

However, the existing literature has predominantly examined green consumption from a psychological perspective, focusing on attitudes, values, and individual motivations, while paying limited attention to the role of structural and operational factors embedded in the value chain. Moreover, although prior studies acknowledge the importance of trust, they often treat it as a direct predictor of behavior without sufficiently examining its mediating role. As a result, the mechanism through which value chain management and chain trust influence green consumption intention through product trust remains underexplored.

To address this gap, the present study proposes an integrated framework that links value chain management and chain trust to green consumption intention through the mediating role of product trust. By positioning product trust as a key mechanism that translates structural signals into consumer behavioral intention, this study provides a more comprehensive explanation of green consumption behavior. Furthermore, this research focuses on consumers in the Guangxi Zhuang Autonomous Region, China, an emerging market context characterized by rapid economic growth, evolving institutional structures, and increasing demand for sustainable products. In such contexts, where information asymmetry and trust

deficits are more pronounced, understanding the interplay between structural credibility and consumer trust is particularly important.

Therefore, this study aims to address the identified research gap by developing an integrated framework that links value chain management and chain trust to green consumption intention through the mediating role of product trust. Specifically, the study seeks to: (1) examine the effects of value chain management and chain trust on product trust; (2) investigate the direct effects of value chain management, chain trust, and product trust on green consumption intention; and (3) analyze the mediating role of product trust in linking structural factors with consumer behavior. By doing so, this study extends the existing literature beyond predominantly psychological perspectives and offers practical insights for enhancing transparency and strengthening consumer trust in sustainable markets, particularly in emerging economies.

This research explains that industrial and technological developments have changed consumption patterns. It affects both wealth and environmental problems. So the concept was born green consumption especially choosing to consume organic food that helps support health and environmental sustainability. The global organic food market continues to grow and China As a large market plays an important role, but research into Chinese consumer behavior is limited.

Although consumers are aware of the importance of green consumption, but there is still a gap between attitudes and actual behavior. Past research has not studied the role of Perceived value and influence of reference groups to adequate green consumption intentions. There is also a lack of application of emotional and decision-making theories. This research therefore aims to add filling that gap by studying the factors affecting Chinese consumers' intention to consume organic food. China, accounting for approximately 18.5% of the global population, constitutes the world's most extensive consumer market and plays a pivotal role in influencing global environmental sustainability (Worldometer, 2022).

By 2018, the domestic organic market in China was valued at approximately 10 billion USD, with forecasts predicting continued robust growth (Daxue Consulting, 2020). However, despite this progress, China remains behind other developed markets in terms of the retail value of organic packaged food as a proportion of total packaged food, underscoring significant opportunities for accelerated growth in this domain (McKinsey & Company et al., 2020). Given these considerations, this study seeks to address a critical gap in the literature by conducting an in-depth analysis of Chinese consumer purchasing behaviors within the context of the organic food market.

Moreover, this study aims to investigate the acknowledgement of consumers about acceptance of organic foods. The study will also investigate about the how the behavior of consumers toward organic foods. However, there are few studies have been done on the subject particularly in China. The results from literature above have provided some information but do not have enough to explain the perception

behavior and referential influence of consumer intention to consume the organic foods in Guangxi Zhuang autonomous region, China. The study also to provide a new and valuable perspective for understanding and explaining the green consumption behavior of Chinese consumers, the present research examines the impact of perceived value and reference groups influences on green consumption intention, and fill gaps recognized by earlier scholars.

Literature Review

1. Product Trust Concept

Product Trust refers to the level of consumer confidence in a product, encompassing the expectation that the product will consistently perform as advertised or promised. Consumers are assured that the product will not cause any damage or problems and is reliable in terms of quality and performance, thereby fostering long-term loyalty and positive word-of-mouth behavior (Delgado-Ballester & Munuera-Alemán, 2004).

1.1 Components of Product Trust

The composition of Product Trust is primarily shaped by various dimensions reflecting consumers' perceived value, including functional, emotional, and social aspects. Understanding these different elements is crucial.

Functional Value refers to the value perceived by consumers based on the practical benefits of using a product. It encompasses aspects such as quality, reliability, durability, and value for money relative to the price paid (Sweeney & Soutar, 2001).

1.2 Emotional Value

Emotional value refers to the value derived from the positive emotions that consumers experience when using a product or service, such as happiness, joy, or a sense of satisfaction. This concept plays a critical role in explaining the psychological motivations behind consumer behavior, especially for experiential products or those with emotional components such as fashion, cosmetics, or environmental products and services.

1.3 Social Value

Social value refers to the perceived value that consumers derive from using a product or service that enhances their image or social standing in the eyes of others. This value does not stem from the product's direct utility, but rather from its symbolic or representational meaning, as seen in luxury goods, eco-friendly products, or culturally symbolic items.

2. The Concept of Chain Trust

The concept of chain trust is not just a behavioral characteristic between individuals. But it is considered an abstract asset that is extremely important for managing relationships between organizations

(inter-organizational relationship Management) in highly volatile market conditions. The literature review can be classified into theoretical dimensions structural elements and the impact on the performance of the value chain as follows:

2.1 Trust in Supplier

Raw material suppliers are considered the beginning of the supply chain, forming the foundation of the entire product production process. Sourcing quality and traceable raw materials not only affects production efficiency but also directly influences consumer confidence in the end product. Therefore, the relationship between an organization and a supplier is not merely a short-term transactional relationship; it requires trust at its core.

From the perspective of Doney & Cannon (1997), trust in suppliers can help customers feel confident that their partners will not take advantage of them. This reduces uncertainty in business dealings and also has a psychological impact on consumers who are increasingly paying attention to the origin of raw materials. This is especially true for organic products, health foods, or consumer products that make value claims related to sustainability and safety.

2.2 Trust in Manufacturer

Manufacturers are considered an intermediate mechanism in the supply chain that plays a crucial role in processing raw materials into products ready to be delivered to the market. Manufacturers not only control the quality and safety of their products but also set the standards, production processes, and image of their products for consumers. Therefore, confidence in manufacturers is an important factor that directly affects the level of product trust.

2.3 Trust in Logistics

Logistics providers play a crucial role in the modern supply chain by efficiently connecting products from manufacturers to end consumers—ensuring timeliness, safety, and the preservation of product quality. Delivery is no longer seen as a mere “trailing service” but rather as the final touchpoint that significantly shapes the overall consumer experience. Any delays, damages, or shipping errors can quickly undermine consumer trust in both the product and the brand.

3. Value Chain Management Concept

The concept of the value chain was introduced by Porter (1985) to explain how organizations create value for their products or services through a consistent and supportive series of internal activities. This concept serves as a strategic tool that enables organizations to understand their cost structures, identify opportunities for cost reduction, and develop competitive advantages by analyzing the value generated by each activity. Key factors that enable organizations to manage value chains effectively and sustainably are critical to achieving competitive advantage.

3.1 Agility

Agility is a critical attribute that 21st-century organizations must possess to effectively respond to the rapid and uncertain changes in today's business environment. Agile organizations are capable of analyzing situations, making decisions, and acting swiftly and flexibly across all levels of the value chain—from upstream suppliers to downstream customers. This capability is especially vital in an era marked by constant shifts in economic conditions, social trends, technological advancements, and consumer behaviors. Agility is no longer merely a strategic option but has become a fundamental factor for an organization's long-term survival (Yusuf et al., 2004).

3.2 Flexibility in Value Chain Management

Studies have shown that flexibility refers to an organization's ability to adapt its production processes, products, systems, or raw material and service procurement networks to accommodate changes in the business environment, both internal and external, without adversely affecting quality, cost, or delivery time (Zhang, Vonderembse, & Lim, 2003). This adaptability is crucial in the face of disruptions such as geopolitical crises, natural disasters, or global pandemics.

3.3 Resilience

Resilience is a key feature of Value Chain Management (VCM) in an era where uncertainty and risk have become integral to business operations across all industries. Resilience refers to an organization's ability to anticipate, prepare for, respond to, adapt to, and recover from adverse or unexpected events—such as economic crises, disease outbreaks, supply chain disruptions, or natural disasters—to efficiently resume operations without losing the trust of customers and business partners (Christopher & Peck, 2004).

4. Green Consumption Intention

Many research studies suggest that Green Consumption Intention consists of 4 important components:

4.1 Purchase Intention

The study of purchase intention is considered the core of research on Consumer behavior: This intention is considered a behavioral representation that shows the probability that consumers will change their purchasing behavior in the future. In general, Purchase Intention refers to the consumer's intention or desire to purchase any product or service, which reflects the actual potential behavior (Schiffman & Kanuk, 2007).

4.2 Green Product Characteristics

Green Product Characteristics or "Green Product Characteristics" means: The characteristics or unique characteristics of the products and services that are designed, manufactured, and distributed take into account the environmental impact comprehensively. Reducing waste from the production

process Energy Efficiency Biodegradable or recyclable, and the absence of harmful substances (Dangelico & Vocalelli, 2017).

4.3 Green Perceived Value

Green Perceived Value refers to the psychological assessment of consumers on the benefits they receive from using environmentally friendly products or services. It is considered both in terms of utility. Social values, sustainability, safety, and ethics compared to the costs incurred (Zeithaml, 1988; The concept of Perceived Value is an important basis for explaining consumer behavior, and when developed in the context of sustainable consumption, **the concept of Green Perceived Value** has received increasing attention from researchers who want to understand how consumers perceive green value and how it affects their purchasing decisions or brand trust (Ting et al., 2019).

4.4 Environmental Concern

In the context of sustainable consumption behavior. Environmental Concern and Environmental Awareness are fundamental factors that significantly affect consumers' intention to buy green products. (Dunlap & Jones, 2002) **Environmental Concern** refers to the level of interest, anxiety, or concern of an individual for environmental issues, such as climate change. Industrial pollution, wasteful use of natural resources, and plastic waste (Mostafa, 2007)

Conception Framework

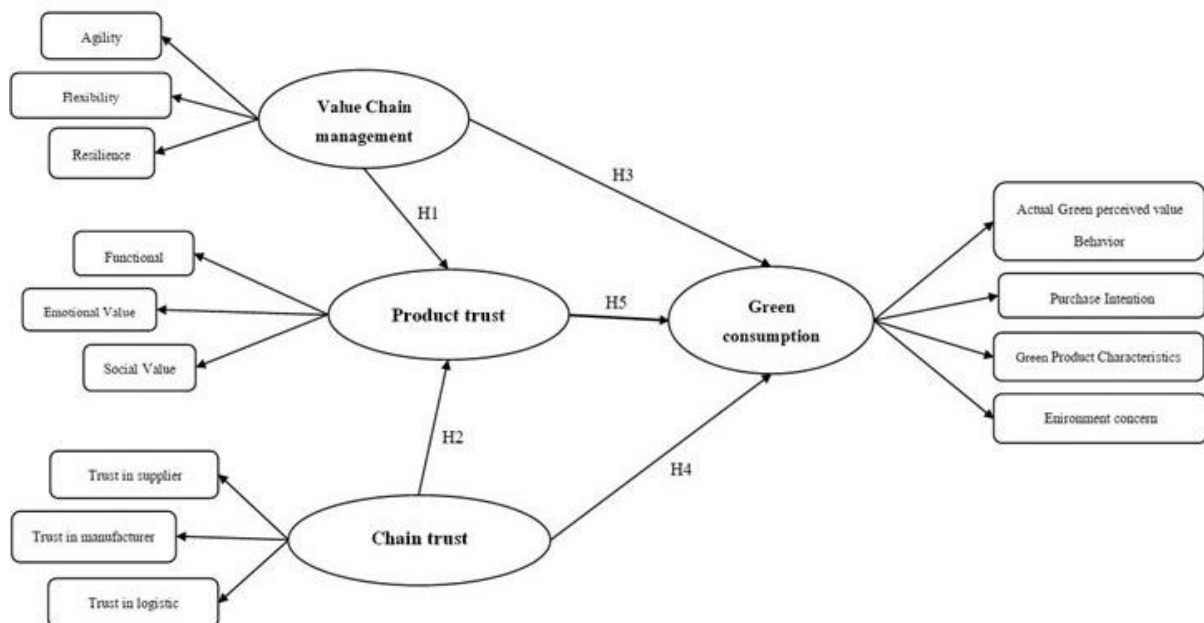


Figure 1 Conception Framework

Objectives of the Research

1. To examine the effects of value chain management and chain trust on product trust.
2. To examine the effects of value chain management, chain trust, and product trust on green consumption intention.
3. To test the mediating role of product trust in the relationships between value chain management, chain trust, and green consumption intention.
4. To study the influence of value chain management on green consumption with the mediating role of product trust.
5. To examine the influence of value chain management, product trust, and chain trust on green consumption intention in Guangxi Zhuang Autonomous Region, China.
6. To provide guidance for the development of green consumption Intention in Guangxi Zhuang Autonomous Region, China.

Research Hypotheses

The researcher has determined the research hypotheses through the literature review and the research objectives. The research hypotheses are as follows

Hypothesis 1: value chain management directly influences product trust in Guangxi Zhuang Autonomous Region, China.

Hypothesis 2: chain trust directly influences product trust in Guangxi Zhuang Autonomous Region, China.

Hypothesis 3: value chain management directly influences green consumption Intention in Guangxi Zhuang Autonomous Region, China.

Hypothesis 4: chain trust directly influences green consumption intention in Guangxi Zhuang Autonomous Region, China.

Hypothesis 5: product trust directly influences green consumption Intention in Guangxi Zhuang Autonomous Region, China.

Research Methodology

3.1 Population and Sample The population of this study consists of consumers who have experience purchasing or using environmentally friendly products. These consumers are considered appropriate respondents as they are directly involved in green consumption decisions. The sample size was determined based on the requirements of Structural Equation Modeling (SEM), which recommends a minimum of 200 respondents or at least 10–20 times the number of observed variables. A total of 400 valid responses were collected and used for data analysis.

3.2 Sampling Procedure This study employed a non-probability sampling technique, specifically purposive sampling, to ensure that respondents had relevant experience with green products. Data were collected through an online questionnaire distributed via digital platforms. Screening questions were included at the beginning of the questionnaire to confirm that respondents had prior experience with green product consumption.

3.3 Research Instrument and Source of Measurement Items. The research instrument was a structured questionnaire consisting of two main sections. The first section collected demographic information such as gender, age, education, and income. The second section measured the study constructs, including value chain management, chain trust, product trust, and green consumption intention.

All measurement items were adapted from well-established studies in the literature to ensure content validity. Value chain management was measured through dimensions such as agility, flexibility, and resilience. Chain trust included trust in suppliers, manufacturers, and logistics providers. Product trust and green consumption intention were measured using previously validated scales. All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

3.4 Instrument Quality Assessment To ensure the reliability and validity of the measurement model, several statistical tests were conducted.

3.4.1 Reliability: Internal consistency was assessed using Cronbach's alpha and composite reliability (CR), with acceptable thresholds above 0.70.

3.4.2 Convergent Validity: Evaluated using factor loadings and average variance extracted (AVE). Factor loadings above 0.70 and AVE above 0.50 indicate adequate convergent validity.

3.4.3 Discriminant Validity: Assessed using the Fornell–Larcker criterion and/or the Heterotrait–Monotrait ratio (HTMT), ensuring that each construct is distinct from others. Items with low factor loadings were removed to improve model quality.

3.5 Data Analysis Techniques Structural Equation Modeling (SEM) was employed to test the hypothesized relationships among variables. The analysis was conducted using AMOS software. The analysis proceeded in two stages:

Measurement Model Assessment to evaluate reliability and validity (factor loadings, CR, AVE, discriminant validity).

1. **Structural Model Assessment** to test hypotheses and examine path coefficients, significance levels, and the mediating effect of product trust.

Model fit was evaluated using multiple indices, including Chi-square/df, CFI, TLI, RMSEA, and SRMR. Acceptable thresholds were applied based on established guidelines. Additionally, the mediating effect of product trust was tested using bootstrapping techniques to examine indirect effects and their statistical significance.

Population and Sample

The sample population used in this article are consumers, ages between 20-60 years old, who used to consume green products, currently living in Guangxi Zhuang Autonomous, China (Guangxi Bureau of Statistics, 2025). A sample of 385 consumers in our target population should be enough to give us the confidence levels we need. However, for the more effective calculation but this study adds up by 15 people for to ensure reliability and reduce sampling error, then the sample size is 400 persons.

Data Collection Methods

This is a quantitative research design used a constructed survey questionnaire based upon a comprehensive review of related literature to collect data from the samples. To measure the construct's pretested items were adopted from previous literature. The questionnaire was pre-tested using a convenience sample of 40 customers who had bought green product in Guangxi Zhuang autonomous region, China. , China. Convenience sampling is a kind of non- probability or nonrandom sampling in which members of the target population, between March 2025 and November 2025.

Data Analysis/Statistics

The data analysis in this study used descriptive statistics to analyze general data and inference statistics using the Structural Equation Modeling analysis method: SEM), which is divided into 2 steps according to the guidelines of Anderson and Gerbing (1988): 1) evaluating the measurement model with confirmatory component analysis (CFA) to check the accuracy and confidence of the variables, and 2) evaluating the structural model (Structural Model) to test correlation assumptions and verify consistency of research models with empirical data.

Research conclusion and discussion

This chapter provides an overview of the results of the empirical data analysis, which aims to examine the relationship between value chain management, supply chain trust, product trust and green consumption intentions of consumers in Guangxi Zhuang Autonomous Region, People's Republic of China.

The results of the analysis of the structural equation model show that the research model is in excellent agreement with empirical data. The model consistency index is within acceptable criteria for all. It reflects that the developed conceptual structure can properly describe the relationship between variables

Hypothesis testing results found that value chain management has a statistically significant positive influence on trust in products. It shows that consumers perceive operational capabilities, flexibility, and supply chain reliability as important signals that help strengthen confidence in products. Additionally, trust in the loop supply chains also play a key role in strengthening trust in products, reflecting the systemic nature of trust that encompasses all stakeholders throughout the value chain

Regarding green consumption behavior, it was observed that trust in products directly influences green consumption intentions and acts as a transmission variable between structural factors and consumer behavior, while at the same time, value chain management and supply chain trust also directly affect green consumption intentions expressed. It is seen that the findings demonstrate a dual-processing mechanism where consumers evaluate both functional supply chain reliability and internal psychological trust cues.

The results of the analysis of direct, indirect and collective influences confirm that the model can explain the high variability of green consumption intentions, reflecting the important role of trust mechanisms in linking value chain management with consumer decision-making.

Results

The analysis of 400 respondents indicates a demographically diverse sample appropriate for examining environmental consumption behavior. Gender distribution was balanced, comprising 208 females (52.0%) and 192 males (48.0%). Most participants were within working age, led by the 20–30 group (25.0%), followed by 31–35 (20.0%) and 36–40 (18.0%), with older age groups collectively representing continued purchasing engagement.

Monthly income was concentrated in the middle range, with 6,001–8,000 yuan accounting for the largest share (23.0%), followed by 4,001–6,000 yuan (21.0%) and 8,001–10,000 yuan (15.0%), while extreme income categories were relatively small. Civil servants formed the largest occupational group (30.0%), and most respondents held a bachelor's degree (53.0%).

Social influence was primarily family-driven, with 312 respondents (78.0%) identifying family as the key reference group, followed by friends (46.0%), highlighting the importance of interpersonal networks in purchasing decisions.

The structural model analysis reveals meaningful relationships among value chain management, product trust, chain trust, and green consumption, supporting the theoretical proposition that structural market credibility and trust mechanisms jointly influence environmentally responsible consumer behavior.

The structural equation model demonstrates acceptable explanatory power, indicating that the integrated framework effectively captures the interaction between operational capability and consumer trust formation. The results suggest that green consumption is not driven solely by psychological intention, but rather emerges from a layered process in which structural signals from value chain practices are interpreted through trust mechanisms before influencing behavioral intention.

Assessment of Overall Model Fit

Table 1 presents the first step in SEM analysis is to evaluate the degree to which the hypothesized model fits the empirical data. The results from the AMOS output indicate that the model demonstrates an excellent fit, exceeding all standard academic requirements.

Table 1 Summary of Model Fit Indices (N = 400)

Model Fit Index	Statistical Value	Recommended Criteria	Interpretation
Chi-square / df (CMIN/DF)	0.72	< 2.00 (or < 3.00)	Excellent Fit
p-value	0.95	> 0.05	Excellent Fit
GFI	0.98	> 0.90	Good Fit
AGFI	0.97	> 0.90	Good Fit
CFI	1.00	> 0.95	Excellent Fit
TLI	1.01	> 0.95	Excellent Fit
RMSEA	0.00	< 0.05 (or < 0.08)	Excellent Fit

This table summarizes the goodness of fit indices used to evaluate the overall fit of the proposed structural equation model based on data obtained from 400 respondents. The chi-square to degrees of freedom ratio (CMIN/DF) was 0.72, which is well below the recommended threshold of 2.00, indicating an excellent model fit. In addition, the p-value of 0.95 exceeds the acceptable criterion of 0.05, suggesting that there is no statistically significant difference between the hypothesized model and the observed data.

The absolute fit indices further support the adequacy of the model. The Goodness of Fit Index (GFI) and the adjusted goodness of Fit Index (AGFI) recorded values of 0.98 and 0.97, respectively, both of which exceed the recommended minimum value of 0.90, indicating a good fit between the model and the empirical data.

All factor loadings were above the recommended level, and the constructs satisfied the criteria for composite reliability (CR > 0.70) and average variance extracted (AVE > 0.50), confirming the adequacy of the measurement model.

Moreover, the incremental fit indices demonstrate an excellent level of model fit. The Comparative Fit Index (CFI) and the Tucker–Lewis Index (TLI) yielded values of 1.00 and 1.01, respectively, surpassing the recommended threshold of 0.95. These results indicate that the proposed model provides a substantial improvement over the null model.

Finally, the Root Mean Square Error of Approximation (RMSEA) value of 0.00 is well below the recommended cut-off value of 0.05, further confirming the excellent fit of the model. Overall, the results indicate that the proposed structural model is highly consistent with the observed data and can be considered a robust and reliable representation of the factors influencing green consumption intention in the Guangxi region.

Hypothesis Testing and Path Analysis

This table 2 presents the results of hypothesis testing using structural path analysis. Testing the proposed research hypotheses, structural equation modeling (SEM) was employed to examine the

relationships among the latent constructs. The evaluation of the structural model was based on the standardized regression weights (β), critical ratios (C.R.), and corresponding p-values. A path was considered statistically significant when the p-value was less than 0.05.

Table 2 Path Coefficients and Hypothesis Testing Results

Hypothesis	Path Relationship	Std. Estimate (β)	C.R. (t)	p-value	Result
H1	Value Chain Management impact to Product Trust	0.63	11.89	***	Supported
H2	Chain Trust impact to Product Trust	0.51	10.23	***	Supported
H3	Value Chain Management impact to Green Consumption Intention	0.28	3.47	***	Supported
H4	Chain Trust impact to Green Consumption Intention	0.26	3.66	***	Supported
H5	Product Trust impact to Green Consumption Intention	0.48	4.75	***	Supported

*Note: *** indicates statistical significance at the $p < 0.001$ level.

Table 2 presents the standardized path coefficients and hypothesis testing results of the structural model. The findings demonstrate that all five hypothesized relationships are statistically significant and supported by the empirical data.

With respect to Product Trust, both Value Chain Management and Chain Trust exert strong and positive effects. Specifically, Value Chain Management has a substantial influence on Product Trust ($\beta = 0.63$, C.R. = 11.89, $p < 0.001$), indicating that effective coordination, transparency, and efficiency across the value chain play a critical role in enhancing consumers' trust in products. Similarly, Chain Trust shows a significant positive effect on Product Trust ($\beta = 0.51$, C.R. = 10.23, $p < 0.001$), suggesting that reliability and credibility within the supply network are essential foundations for consumer confidence.

Regarding green consumption intention, value chain management and chain trust also exhibit significant direct effects, although their magnitudes are comparatively lower than their effects on product trust value chain management positively influences Green Consumption Intention ($\beta = 0.28$, C.R. = 3.47, $p < 0.001$), while chain trust demonstrates a similar positive impact ($\beta = 0.26$, C.R. = 3.66, $p < 0.001$). These findings imply that organizational and relational capabilities within the supply chain directly contribute to consumers' environmentally responsible purchasing behavior.

Furthermore, product trust has a strong and positive effect on Green Consumption Intention ($\beta = 0.48$, C.R. = 4.75, $p < 0.001$), highlighting its pivotal role as a key determinant in translating value chain effectiveness and trust-based relationships into consumers' intentions to engage in green consumption.

Overall, the results of the path analysis confirm the robustness of the proposed structural model and provide empirical support for the hypothesized relationships. The findings underscore the central role of value chain management, chain trust, and product trust in shaping green consumption intention, thereby offering important theoretical and managerial implications for sustainable supply chain and green marketing strategies.

Discussion

The findings of this study provide a deeper theoretical understanding of how green consumption behavior emerges from the interaction between structural credibility and psychological trust mechanisms. While traditional consumer behavior theories emphasize attitudinal intention, the present results demonstrate that intention formation is embedded within broader institutional and operational contexts. This finding is consistent with prior empirical studies suggesting that contextual and structural factors play a critical role in shaping sustainable consumption behavior.

First, value chain management was found to have a significant effect on product trust, suggesting that operational capabilities such as agility, flexibility, and resilience contribute to enhancing consumers' confidence in products. This result is consistent with previous empirical research indicating that supply chain transparency and operational reliability are key determinants of consumer trust in sustainable products.

Second, chain trust also significantly influenced product trust, indicating that trust across supply chain partners plays a critical role in shaping consumers' perceptions. This finding aligns with earlier studies on inter-organizational trust, which emphasize that credibility at the network level strengthens perceived product authenticity and reduces consumer skepticism.

Third, both value chain management and chain trust showed direct effects on green consumption intention, although the strength of these effects may vary. This suggests that consumers respond not only to psychological trust but also to structural signals related to sustainability and reliability. Similar patterns have been reported in prior studies, where both institutional trust and operational transparency directly influence pro-environmental purchasing behavior.

Importantly, the mediation analysis revealed that product trust acts as a key mechanism linking value chain management and chain trust to green consumption intention. Unlike some previous studies that treat trust as a direct antecedent of behavior, the present findings provide empirical support for its mediating role, offering a more nuanced explanation of how structural and relational factors translate into consumer-level outcomes.

From the perspective of the Theory of Planned Behavior (TPB), consumer intention is shaped by attitudes, perceived norms, and behavioral control. The strong influence of product trust observed in this

study suggests that trust functions as a cognitive reinforcement mechanism that stabilizes intention. This finding is consistent with prior TPB-based studies, which demonstrate that reducing perceived risk enhances behavioral control and strengthens intention. The present study extends TPB by highlighting that structural signals from value chain systems contribute indirectly to intention through trust formation.

The findings also align with the Stimulus–Organism–Response (SOR) framework, where value chain attributes operate as external stimuli interpreted through internal psychological processes. Operational characteristics such as agility, flexibility, and resilience serve as environmental cues that consumers cognitively process to evaluate product credibility. Product trust and chain trust represent the organism component—internal evaluations that shape behavioral responses. This is consistent with prior SOR-based research emphasizing that environmental and structural cues influence consumer behavior through internal cognitive mechanisms.

From a trust theory perspective, the study demonstrates that trust is not monolithic but layered. Product trust reflects micro-level confidence in performance and authenticity, whereas chain trust captures macro-level institutional credibility. This supports the findings of Chen et al. (2020), who highlight the role of supply chain transparency as a critical signal in reducing consumer skepticism. Moreover, the results are consistent with prior research showing that trust reduces perceived risk, particularly in contexts where consumers cannot directly verify environmental claims.

The strong role of value chain management connects the study to supply chain and strategic management theory. Porter’s value chain framework suggests that operational excellence creates competitive advantage. The present study extends this perspective into sustainability contexts, demonstrating that operational transparency functions as a behavioral signal. This is consistent with Manders et al. (2017), who emphasize that supply chain flexibility and resilience enhance operational reliability and, consequently, consumer confidence.

Importantly, situating the study within a transitional economic context contributes to emerging market literature. Prior studies suggest that institutional trust in developing regions remains relatively fragile; thus, structural credibility becomes a key determinant of consumer behavior. The findings of this study support this argument, indicating that sustainability adoption in such contexts depends more on observable organizational reliability than on abstract environmental values.

Collectively, these findings support and extend existing theoretical frameworks by integrating behavioral intention theory, trust formation, and operational signaling into a unified model. This multidimensional perspective addresses longstanding gaps in sustainability research by bridging consumer psychology with structural market processes.

Suggestion

Based on the findings, several practical implications emerge:

1. **Businesses** Organizations should prioritize transparent value chain practices that signal operational reliability. Investments in traceability systems, sustainable sourcing, and logistics accountability can strengthen consumer trust and enhance green market competitiveness. Marketing communication should emphasize verifiable sustainability processes rather than abstract claims.
2. **Supply chain stakeholders including** suppliers, manufacturers, and logistics providers is essential to establish systemic credibility. Shared sustainability standards and certification mechanisms can reinforce consumer confidence across the entire value chain.
3. **Government Policy** should promote product verification, environmental labeling, and supply chain transparency can reduce consumer uncertainty. Public awareness initiatives should highlight credible sustainability benchmarks to encourage responsible purchasing behavior.
4. **University should** focus on helping consumers recognize trustworthy sustainability signals, enabling informed decision-making in complex markets.

References

- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological bulletin*, 103(3), 411.
- Chen, Y., Huang, A., & Liu, L. (2020). Supply chain transparency and consumer trust: A perspective of sustainable consumption. *Journal of Cleaner Production*, 273, 123077.
- Christopher, M., & Peck, H. (2004). Building the resilient supply chain. *The International Journal of Logistics Management*, 15(2), 1–14.
- Dangelico, R. M., & Vocalelli, D. (2017). Green marketing: An analysis of definitions, strategy steps, and theoretical frameworks. *European Journal of Innovation Management*, 20(1), 126–152.
- Delgado-Ballester, E. (2004). Applicability of a brand trust scale across product categories: A multigroup invariance analysis. *European Journal of Marketing*, 38(5/6), 573–592.
- Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing*, 61(2), 35–51.
- Dunlap, R. E., & Jones, R. E. (2002). *Environmental concern: Conceptual and measurement issues*. In R. E. Dunlap & W. Michelson (Eds.), *Handbook of environmental sociology*. Greenwood Press.
- Guangxi Zhuang Autonomous Region Bureau of Statistics. (2025). *Statistical communique of the Guangxi Zhuang Autonomous Region on the 2024 national economic and social development*. Retrieved from <http://tjj.gxzf.gov.cn/English/>

- McKinsey & Company, Madgavkar, A., White, O., Krishnan, M., Azcue, X., & Mahajan, D. (2020). *COVID-19 and gender equality: Countering the regressive effects*. Retrieved from <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Future%20of%20Organizations/COVID%2019%20and%20gender%20equality%20Countering%20the%20regressive%20effects/COVID-19-and-gender-equality-Countering-the-regressive-effects-vF.pdf>
- Manders, J. G. L. M., Caniëls, M. C. J., & Veldman, J. (2017). Supply chain flexibility: A systematic literature review and research directions for future research. *International Journal of Production Economics*, 190(1), 158–166.
- Porter, M. E. (1985). Technology and competitive advantage. *Journal of business strategy*, 5(3), 60-78.
- Mostafa, M. M. (2007). A hierarchical analysis of the green consciousness–consumer behavior gap: Evidence from Egypt. *International Journal of Consumer Studies*, 31(3), 220–233.
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. Free Press.
- Schiffman, L. G., & Kanuk, L. L. (2007). *Consumer behavior* (9th ed.). Pearson Prentice Hall.
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220.
- Ting, H., Thaichon, P., Chuah, F., & Tan, S. R. (2019). Consumer behavior and disposition decisions: The six dimensions of online shopping. *Journal of Retailing and Consumer Services*, 48(1), 212–222.
- Worldometers. (2022). *COVID-19 coronavirus pandemic: Global statistics and trends*. Retrieved from <https://www.worldometers.info/coronavirus/>
- Yusuf, Y. Y., Gunasekaran, A., Adeleye, E. O., & Sivayoganathan, K. (2004). Agile supply chain capabilities: Determinants of competitive objectives. *European Journal of Operational Research*, 159(2), 379–392.
- Zhang, Q., Vonderembse, M. A., & Lim, J. S. (2003). Manufacturing flexibility: defining and analyzing relationships among competence, capability, and customer satisfaction. *Journal of Operations Management*, 21(2), 173-191.