Enhancing Green Food Consumption Intentions Among Chinese Generation X: Integrating Environmental Values and Self-Identity into the Theory of Planned Behavior

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Article

Enhancing Green Food Consumption Intentions Among Chinese Generation X: Integrating Environmental Values and Self-Identity into the Theory of Planned Behavior

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Abstract: Sustainable development purposes require strong emphasis on green food promotion as an essential component. The decision-making process of Generation X members toward green food consumption creates important effects on both personal health and environmental sustainability and social programs and economic stability. This research examines environmental self-identity and environmental values as predictors of green food consumption intentions with analysis of attitude and relevant intermediate factors include personal standards as well as perceived control over behavior. The researcher gathered data through convenience sampling from 480 Chinese Generation X participants. Statistical analysis followed the pretest to perform assessments for reliability and validity testing. Structural equation modeling (SEM) processed the data while validating confirmatory factor analysis and path analysis testing. Data analysis validates environmental values drive green food consumption intentions through their impact on green food attitudes and the reinforcement of subjective norms and perceived behavioral control which results in ecological and social benefits promoting pro-environmental choices. The research shows self-identity as an environmental entity positively affects green food consumption because it strengthens users' self-belief as eco-conscious consumers leading to intensified attitudes and subjective norms and perception of behavior control. The research enriches the TPB (theory of planned behavior) by proving that environmental attitudes respond to environmental factors including social environments along with economic capacity and living conditions to shape generation X consumers' intentions to buy green food. The results enable both policymakers and marketers to create effective strategies in green food consumption of promotion.

Keywords: generation X; green food consumption; sustainable consumption; theory of planned behavior

1. Introduction

The rising global focus on environmental sustainability and health awareness strongly affects how people behave as consumers particularly regarding food buying in China [1]. The practice of buying green food serves as a fundamental method to help China achieve United Nations Sustainable Development Goals especially those connected to environmental preservation and health maintenance and production together with consumption responsibility [2]. The practice of green food consumption promotes sustainable agriculture and decreases agricultural environmental impact thus fulfilling requirements of SDG 12 (Responsible Consumption and Production) and SDG 13 (Climate Action). Green food distribution practices help reduce synthetic chemical utilization which improves

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soil conditions and conserves biodiversity to sustain ecosystems over extended periods. The decrease of greenhouse gas emissions through sustainable supply chains along with greenhouse gas control makes green food supportive of worldwide climate change mitigation initiatives. The sustainable characteristics of green food help consumers transition to environmentally friendly choices thereby strengthening social awareness about sustainable lifestyles [3-5].

The development of sustainable practices relies heavily on green food because it meets requirements in safety and sustainability and environmental friendliness. Green food promotes both human health protection through pollution-free practices and environmental sustainability through its strict quality control leading to ecological sustainability. The Chinese green food market benefits from growing consumer interest yet continues to face market entry barriers because demand fluctuates and few consumers have adopted these products while also requiring improved marketing efforts to reach different population segments [6-8]. The green food in recent years, the market has steadily grown, with annual sales reaching 540 billion RMB in 2022. The number of certified green food products and enterprises has also significantly increased, indicating growing consumer recognition of the benefits of green food. Despite this progress, green food still accounts for less than one percent of all food sales in China, highlighting the significant potential for expansion in this sector [9, 10].

The Chinese Generation X, with an estimated population of 330 million, accounts for 23% of the total population and, together with Generation Y, contributes over 60% of the national income. Over the next decade, Generation X's expenditure in the beauty industry is projected to increase by $150 billion, with skincare products experiencing an annual growth rate of 4.9% (approximately $26.8 billion). In the alcoholic beverages market, individuals born in the 1970s account for 29.4% of consumers. In the past three years, Generation X's home purchase rate was twice the average of other generations, with 62% prioritizing residential quality. Furthermore, Generation X is a dominant group in high-end social consumption, accounting for 73% of online fashion shoppers and 21% of high-value cross-border consumers, with an annual expenditure of $375 billion. This generation prioritizes health-related consumption, focusing on cardiovascular health, and serves as a critical driving force in various consumption sectors [11, 12].

Current research on the consumption behavior of Generation X consumers predominantly focuses on areas such as luxury goods, real estate, high-end social consumption, and health-related products. These studies often highlight Generation X's substantial purchasing power, brand loyalty, and intention to invest in quality and status-enhancing products [13, 14]. However, research on Generation X's intention to consume green food remains relatively limited. Enhancing Generation X customers intention to purchase green food is not only aligns with global sustainability goals but also leverages the influential role this generation plays in shaping market trends and can contribute to environmental preservation, foster a shift toward more sustainable consumer habits, and encourage broader adoption of eco-friendly practices across other consumer groups [15, 16].

In response to these challenges, both government and private stakeholders have implemented measures to promote green food consumption [17]. Recently, China committed to building a green, circular, and low-carbon economy, emphasising the promotion of green production methods, energy conservation, and cleaner production to achieve coordinated economic, social, and environmental development. Furthermore, initiatives aimed at increasing consumer knowledge and promoting eco-label certifications have been pivotal in boosting consumer confidence in green products. Despite these efforts, the unique consumption patterns and preferences of Generation X remain insufficiently addressed in the current literature, particularly concerning the psychological and emotional factors driving their green food consumption intentions [18-20].

The studies have explored green food certification systems, consumer perceptions of eco-labels, and few studies have explicitly looked at how environmental values and environmental self-identity interact to shape the GF (green food), or how attitudes and subjective norms influence green purchasing behavior consumption intentions of Generation X consumers. Studying environmental values alongside environmental self-identity demonstrates importance because it helps understand the psychological factors that drive Generation X to purchase green food while representing a vital method to improve China's sustainable consumption targets and green food market development [6,

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21, 22]. TPB stands as a well-established model which predicts behaviors involved in green food consumption. The Health Belief Model has become increasingly popular as 2013 for researching green food decision-making processes [23, 24]. On the other hand, while factors such as social influences, education, policy, family, knowledge, and values are no strangers to predicting green food consumption intentions, the exploration of relationships among these factors remains relatively rare. Researchers face substantial difficulty in improving green food consumption intentions because it helps reach sustainable development targets. This research expands the TPB through implementation of value-attitude-behaviour (VAB) model and self-identity theory (SIT) to investigate the following:

1. The research evaluates both environmental value influence and Generation X consumption intentions toward green foods;
2. The research examines how environmental self-identity influences Generation X members when it comes to intentions about green food consumption;
3. The studies investigate the relationship between mindset, personal standards, and what is considered behavioral management. function as mediators when predicting intentions to consume green foods;

The research is structured as follows: Section 2 reviews the relevant literature and The research follows this structure: Section 2 examines previous studies with related frameworks while Section 3 explains data procurement and analytical methods followed by Section 4 presenting results data. Section 5 analyzes theoretical along with practical aspects before a conclusion in Section 6 provides guidelines for future research investigations.

2. Literature Review

2.1. Theoretical Approach

According to the TPB theoretical framework which works as an explanation tool for multiple behavioral choices the main elements that determine behavioral intentions are attitudes along with subjective norms and perceived behavioral control [25]. TPB has evolved through substantial improvements during years of research efforts which aimed to transform its basic framework when analyzing sustainable consumption. Research and research demonstrate that TPB works better when expanded with personal norms along with biosphere values and environmental self-identity components because these constructs capture multiple dimensions of pro-environmental habits [26, 27]. Theoretical improvements enable extended use of the model because it expand its boundary to research green food behaviors across various cultural settings and demographic groups including emerging market consumers and different age segments.

The value-attitude-behavior (VAB) model with its main focus on environmental values contributes to the TPB through establishing how values affect attitudes towards sustainable behavior. The research of socially derived personal identities enables deeper comprehension through Social Identity Theory because it demonstrates that self-identification with social norms affects green food consumption patterns [28, 29]. To research sustainable food choices both psychologically and socially researchers can rely on the merged framework which provides extensive understanding of behavior driving forces across different situations and demographic groups.

Specific research has employed these theoretical models to predict green food consumption, emphasizing their practical and academic value. Table 1 summarizes key research efforts that have utilized the VAB model, SIT, and TPB to examine green food consumption behaviors, illustrating the diverse applications and findings across different cultural and demographic settings.

Table 1. Specific studies of applying the VAB model and SIT to predict green food consumption.

Theory	Research Context	Findings	Source
Value-Attitude-Behavior (VAB) Model	Taiwanese consumers' behavioral intentions towards up cycled foods	Eco-conscious values significantly influence consumer attitudes and anticipated guilt, which in turn shape behavioral intentions towards up cycled foods. Product knowledge and	Chen [30]

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		green perceived quality are crucial in decision-making.	
VAB Model	Chinese consumers' willingness to pay for eco-agricultural products	Cultural values and trust in green food labels positively affect consumers' willingness to pay for green food, mediated by attitudes towards eco-agricultural innovations.	Li, Lin [25]
Social Identity Theory (SIT)	Social identity and green food consumption in Australia	Social identity significantly impacts sustainable food consumption behaviors; When green consumption is in line with the norms and values of their social group, people are more likely to practice it.	Jang and Kim [31]
TPB (Theory of Planned Behavior)	Sustainable food consumption behaviors among young consumers in India	Biospheric, egoistic, and hedonic values, along with environmental concern and identity, significantly shape beliefs, the impression of behavioral control and arbitrary standards.	Arya, Chaturvedi [23]
TPB + Norm Activation Theory	Green food consumption intentions among Chinese college students	Subjective norms, behavioral attitudes, and personal norms favorably impact consumers' intentions to buy green foods, highlighting the enhanced explanatory power of integrated frameworks.	He and Sui [32]
TPB (Meta-analysis)	Sustainable food consumption across different countries	There exists a substantial correlation between intentions and attitudes, subjective norms, and perceived behavioral control to purchase green food, demonstrating TPB's adaptability across cultures.	Qi and Ploeger [33]

2.2. Hypothesis Development

Environmental values are pivotal in shaping green consumption intentions. According to the TPB framework, values shape favorable attitudes by fostering positive perceptions of green products, such as their ecological and social benefits [34].Environmental values impact consumers' intents to make green purchases through attitudes, arbitrary criteria, and perceived behavioral control, emphasizing their role in sustainable consumption [35].

According to the VAB model values form the basis for attitudes following a step-by-step process that links values to attitudes which generate behavioral intentions [36]. Studies evaluating self-identity in green consumption prove that people can match their core values to broader environmental targets. People who strongly value environmental issues tend to form positive product attitudes about green products which drives them to participate in pro-environmental consumption practices [22 37].

The level of environmental values guides how people adjust their conduct to comply with societal norms and collective pressure criteria. The social approval and encouragement experienced by people holding strong biosphere values creates stronger subject norms which leads them to engage in green consumption choices. Environmental values create an ethical obligation for people to follow societal and group norms that support eco-friendly behaviors according to [38, 39].

Environmental values enhance the perceived behavioral control (PBC) of consumers by improving their confidence to conduct green consumer behavior. People who possess environmental knowledge together with access to sustainable options can remove barriers thus enabling them to take actions in line with their environmental principles. People who value protecting the

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environment actively seek available information and resources which leads to decreased obstacles in their choice for environmentally-friendly consumption [40-42]. The research indicates that Perceived Behavioral Control acts as an essential connection point between values and intentions thus strengthening the association between environmental consciousness and behavioral outcome. This research sets the hypotheses as follows;

H1: *The intentions of Generation X consumers to buy green food are positively influenced by their environmental values.*

H2: *Environmental values create positive effects on the connection between buying green foods and members of Generation X attitudes.*

H3: *The values Generation X holds about environmental matters act as positive factors toward their green food consumption intentions by shaping their attitudes toward it.*

H4: *Environmental values create a positive influence on the perception of norms among individuals from Generation X.*

H5: *The values related to the environment boost the green food consumption intentions of Generation X members through their perceived social expectations.*

H6: *The environmental values held by Generation X lead to positive perception of behavioral control.*

H7: *The perceived behavioral control of Generation X concerning green food consumption depends on environmental values and directly influences their intention to buying green food.*

The extent to which someone sees themselves as a responsible environmental steward stands as a crucial factor to predict their green consumer behavior. Self-identity concerning the environment proves more potent than either attitudes or values. Studies show that holding green self-identity leads people to develop more positive intentions for buying green products thus revealing its direct influence on purchasing decisions. Self-identity as an environmentally friendly person becomes stronger when people act according to social expectations for sustainability. Environmental self-identities strengthen pro-environmental behaviors which have been demonstrated through sustainable apparel consumption with Generation Z [22, 43-45]. Research findings demonstrate identity functions as a main factor which directs sustainable practice behavior.

The way people identify themselves with the environment determines their perspectives on sustainable merchandise. The formation of personal identity determines how consumers view things according to research evidence about eco-labelled food purchases that enhance positive environmental attitudes. Personal values and subjective perceptions are linked by environmental self-identity and personal norms which enables green consumption intentions [46, 47].

Environmental self-identity plays a crucial role in shaping subjective norms, both before and after attitudes are formed. When individuals see themselves being ecologically conscious, people are more prone to internalize societal expectations and pressures. This self-perception influences social approval, reinforcing environmental behaviors with group norms. This process highlights how environmental self-identity connects personal values with social influences, strengthening subjective norms that drive intentions for green food consumption. Additionally, environmental self-identity boosts perceived behavioral control by increasing individuals' confidence and encouraging proactive engagement in sustainable consumption. People who strongly identify with environmental issues are better equipped to overcome financial and product availability challenges through active market research and informed decision-making. As a result, their growing personal capability and reduced perception of obstacles enhance their intentions to purchase green food.

Self-identity is strengthened when the value-identity-personal norm model is combined with the idea of planned conduct personal norms to encourage pro-environmental conduct based on social relationship-derived meaning. Furthermore, environmental self-identity moderates the relationship

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between PBC (perceived behavioral control) and behavioral intentions, emphasizing its multifaceted role in sustainable decision-making. However, green consumption practices are often resource-intensive, requiring significant investments of time, money, and effort, which further highlight the importance of understanding self-identity as a mediator in green consumer behavior [37, 45, 50]. Thus, it leads to the following hypotheses:

H8: *Generation X's aim to eat more environmentally friendly food is positively influenced by their environmental self-identity.*

H9: *Environmental self-identity positively influences attitudes toward green food consumption among Generation X.*

H10: *Environmental self-identity positively influences Generation X's intents to consume green foods through their views.*

H11. *Environmental self-identity positively influences Generation X's subjective norms to consume green foods through their views.*

H12: *Environmental self-identity positively affects Generation X's intention to consume green food via subjective norms.*

H13: *Behavioral control perception is positively influenced by environmental self-identity.*

H14: *Through perceived behavioral control, Generation X's environmental self-identity favorably influences their intention to consume green foods.*

Regarding the consumption of green foods, TPB effectively captures psychological and social dynamics that drive sustainable consumer behaviors, a cohort known for its economic influence and increasing environmental consciousness. Attitudes toward green food consumption reflect the perceived health benefits and environmental advantages of such behaviors. For Generation X, who often prioritize family well-being and long-term sustainability, attitudes are primarily influenced by the perception that green food offers superior health outcomes and reduces environmental harm [32]. Favorable attitudes are strongly correlated with behavioral intentions when consumers recognize both personal and ecological benefits [51, 52]. This intrinsic motivation aligns with Generation X's growing awareness of sustainability issues, as highlighted by studies emphasizing that self-identity as environmentally conscious consumers enhances the link between positive attitudes and green food purchasing behaviors [53, 54]. By fostering stronger attitudes through education and marketing strategies that emphasize these benefits, interventions can effectively enhance sustainable consumption intentions with this group.

Subjective norms represent the perceived social pressures to adopt green food consumption practices. For Generation X, these norms often emerge from familial roles, peer influence, and community values Communities known for their environmental advocacy have heightened their social pressure toward green food consumption because it represents a responsible choice for sustainable living [56]. Generation X adults perceive social cues that support sustainable consumption because it both manage younger people and make household purchasing decisions thus making sustainable behavior part of their everyday routine.

People develop their performance ability belief through factors such as affordability and convenience and system availability [57]. Practical obstacles such as price and distribution barriers make Generation X members doubt their ability to buy green food [58]. Ample supply of budget-friendly green food enhances performance beliefs which boost future green food purchasing intent [23]. To increase PBC implementation strategies should highlight green food products in regular retail venues and provide discounts or deals to enhance accessibility. Education about simple and affordable green dietary incorporation through campaigns should build Generation X consumer ability to follow sustainable shopping behavior [59].

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The parallel structure between attitudes and subjective norms with PBC provides Generation X researchers with a full understanding of their intentions to consume green food. Attitudes provide the motivational foundation, subjective norms reinforce societal and familial accountability, and PBC addresses practical feasibility [60]. Together, these constructs effectively capture the psychological and social mechanisms driving sustainable consumption with this influential demographic. Thus, it leads to the following hypotheses:

H15: *Generation X's attitudes toward green food consumption positively influence their intention to consume green food.*

H16: *Generation X's subjective norms positively influence their intention to consume green food.*

H17: *The perceived behavioral control towards the consumption of green food is positive among Generation X.*

Combined with the above content, figure 1 embodies the empirical mode l.

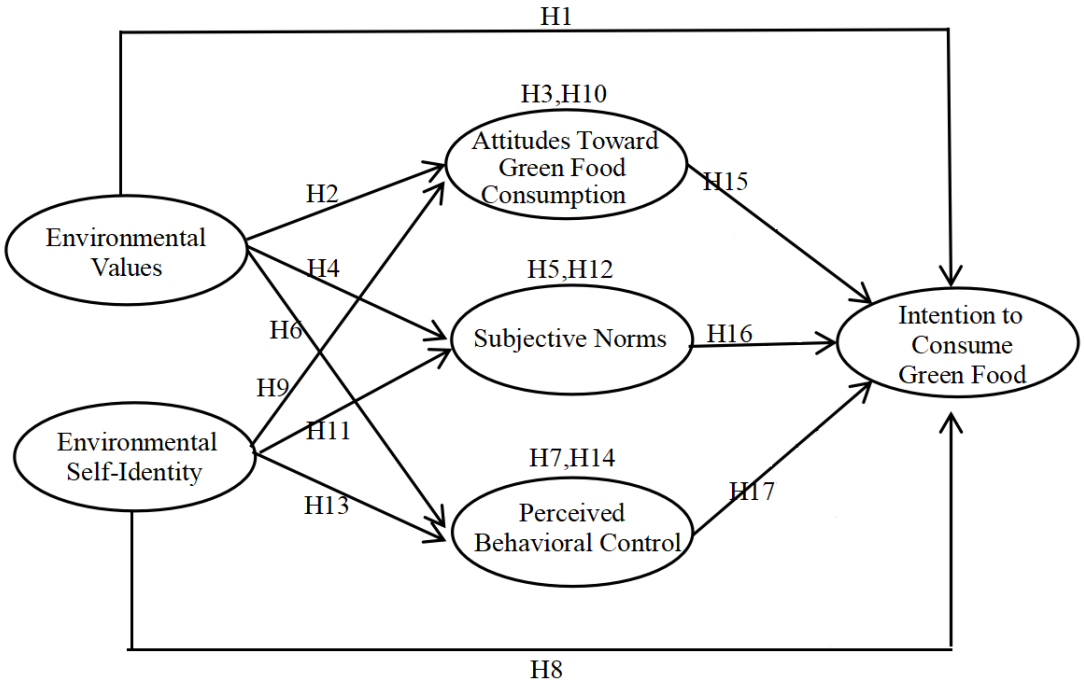

Figure 1. Conceptual Model.

3. Method

3.1. Data Collection

This research employed convenience sampling to gather data from Generation X consumers (aged 43 to 58 years) in China, targeting individuals with prior experience or interest in green food consumption. Over a six-week survey period, 480 valid responses were collected overall, ensuring robust dataset for analysis. The research implemented both electronic and physical methods for data collection to gain broader and more appropriate reach. Surveys were administered through both online and in-person procedures to shoppers in Beijing and Shanghai at supermarkets and community centers while it decided about their purchases. The researchers selected the locations because it offered ease of access to Generation X consumers during their everyday activities. The distribution of online surveys happened through WeChat and Weibo platforms which granted access to diverse population segments. The research used small green food product vouchers as an incentive strategy to motivate participants and maintain response credibility. This research creates a solid base for generating insights about Generation X green food consumption behaviors through its blend of

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qualitative and quantitative methods along with continuous research engagement with generation X participants.

3.2. Instrument

A structured survey instrument assessed the determinants affecting Generation X individuals in China who intend to purchase green food. The designed questionnaire followed the research model by incorporating seven essential constructs including environmental values and self-identity alongside green food consumption intention along with attitudinal views towards green food and perception of behavioral control and social norms. The research used tested measurement scales that originated from earlier studies to evaluate each construct. Each statement received evaluation by 7-point Likert scale that incorporated "Strongly Disagree" as well 7 ("Strongly Agree") as rating options. Research approach allowed for a detailed evaluation of the variables as well as collected data with strength and reliability. The instrument obtained ethical approval from Mahachulalongkornrajavidyalaya University Institutional Review Board (IRB) through approval number R808/2024.

The first construct, environmental values, refers to individuals' perceptions and orientations toward the environment. Five items made up the scale which originated from Chaihanchanchai and Anantachart [61] to assess environmental values. These items assessed how deeply environmental concerns influence consumers' daily behaviors and consumption choices. Environmental self-identity was the second construct, described as the degree to which people believe it are environmentally friendl. Following Nguyen, Lobo [62], this scale included four items that measured the alignment between consumers' self-perception and their pro-environmental behaviors. For instance, respondents were asked whether purchasing green food makes them feel like environmentally responsible customers.

Consumers' willingness to consume green foods was gauged by their intention to do so behaviors. Adapted from Varah, Mahongnao [63], this scale consisted of four items evaluating willingness to purchase green food, even at higher prices, and plans to prioritize green food in future consumption decisions. These items captured the behavioral intention central to the study.

Attitude towards green food consumption, the fourth construct, focused on individuals' evaluations of green food as a sustainable consumption choice, adapted from Varah, Mahongnao [63] and Joshi and Rahman [64], comprised five items, including perceptions of environmental and health benefits and the emotional satisfaction derived from green food consumption. These items reflected the positive or negative evaluation of adopting green food in daily life. The fifth construct, subjective norms, measured the perceived social pressure to consume green food. Based on Varah, Mahongnao [63], this scale included five items assessing the influence of family, friends, and respected individuals on respondents' purchasing decisions. Items also evaluated whether respondents felt encouraged to consume green food due to societal expectations. Perceived behavioral control, the sixth construct, assesses individuals' perceived ability to engage in green food consumption. Adapted from Shang, Zhu [65] and Paul, Modi [66], this scale included five items that captured resources, time, and accessibility to green food as determinants of behavioral control. For instance, one item explored the availability of green food in nearby stores as a factor influencing regular purchasing behavior.

By structuring the questionnaire with clearly defined constructs and adapting established scales, this research ensured the validity and reliability of the instrument. This approach facilitated a nuanced understanding of the psychological and behavioral factors influencing green food consumption intentions among Generation X.

3.3. Data Analysis Tool

The reliability and validity assessment of the questionnaire underwent testing through a pilot research phase with 30 Generation X subjects. The data collection points occurred in the Chaoyang District Carrefour supermarket of Beijing to gather information from customers who purchased green food. The software program tested the scales both in reliability and validity. The internal consistency calculations based on Cronbach's alpha proved to be robust across all measures because the resulting alpha values exceeded 0.7. Pretest results confirmed the questionnaire's validity through

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measurement items which significantly loaded onto their designated factors beyond the established cutoff of 0.6. The findings guaranteed the structural validity of the constructs by confirming that factor analysis could be performed using the sample data. Following this pilot, the suggested correlations can be evaluated using structural equation modeling (SEM), and the measurement model can be validated using confirmatory factor analysis (CFA). The elements influencing Generation X's aspirations to consume green foods are rigorously evaluated thanks to this sequential approach.

4. Results

4.1. Description of the Statistical Analysis

This research utilized a structured questionnaire to collect 480 Gen-X, aged from 44-59, with respondents distributed across three primary age categories: 31.3% were aged 44-49, 39.2% were aged 50-55, and 29.6% were aged 56-59. The sample presented a slightly higher proportion of female respondents (51.7%) compared to male respondents (48.3%). In terms of monthly income, respondents demonstrated a wide range of financial capacities. Approximately 37.1% reported earnings above 8001 RMB, 31.5% fell into the 6001-8000 RMB range, while 19.8% reported earning between 4001-6000 RMB. Respondents with monthly incomes between 2001-4000 RMB constituted 9.4%, and only 2.3% reported incomes below 2000 RMB. The education level of participants was diverse, with the majority (30.8%) having completed junior high school or below, followed by 28.1% with high school education. Respondents with university degrees comprised 26.7%, while those holding a master's degree or higher represented 14.4%. This educational diversity provides insights into how knowledge and awareness can influence green food consumption patterns are shown in table 2.

Table 2. Sample Information.

Features		Frequency	Proportion
Gender	Male	232	48.3
	Female	248	51.7
Age	44-49	150	31.3
	50-55	188	39.2
	56-59	142	29.6
Average Monthly Income	Below 2000 RMB	11	2.3
	2001-4000 RMB	45	9.4
	4001-6000 RMB	95	19.8
	6001-8000 RMB	151	31.5
	Above 8001 RMB	178	37.1
Education Level	Junior High School or below	148	30.8
	High School	135	28.1
	University	128	26.7
	Master's degree or above	69	14.4

Figure 1-Figure 3 reveals that Inquiries concerning the participants' shopping patterns for green foods were also made. With 55.0% of purchases, vegetables were the most popular item of respondents indicating it had bought them, followed closely by grains (54.4%) and fruits (54.4%). Livestock and poultry products were purchased by 51.0%, while aquatic products accounted for 52.7%. Coffee and tea demonstrated a balanced purchasing trend, with exactly half of the respondents reporting purchases. Other green foods, including specialty or niche products, were purchased by 70.4% of respondents, reflecting broader green food interests. When examining preferred purchasing locations; supermarkets emerged as the most popular choice, with 56.7% of respondents indicating purchases from these outlets. Convenience stores followed closely (56.0%), along with medium and large shopping malls (55.2%), farmers' markets (55.0%), and green food specialty stores (54.2%). Additionally, 62.1% reported purchasing green food from other sources, demonstrating a reliance on diverse retail channels. Finally, healthier options were the most commonly cited motivation,

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influencing 58.3% of respondents. Environmental impact and affordability were key considerations for 51.5% and 50.8% of participants, respectively. Better taste and nutritional value were less prominent motivators, affecting 46.0% and 47.5% of respondents, respectively. Other factors, including ethical or sustainability concerns, were considered by 57.5% of respondents.

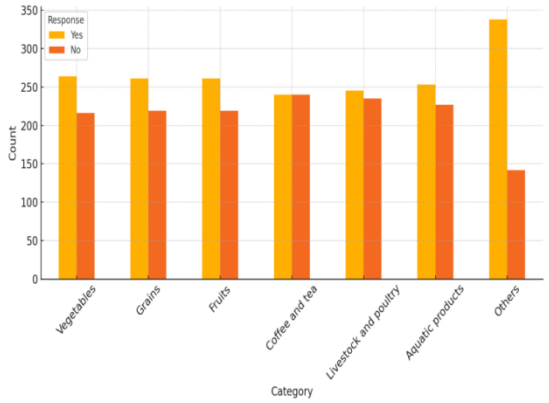

Figure 1. Type of green foods purchased.

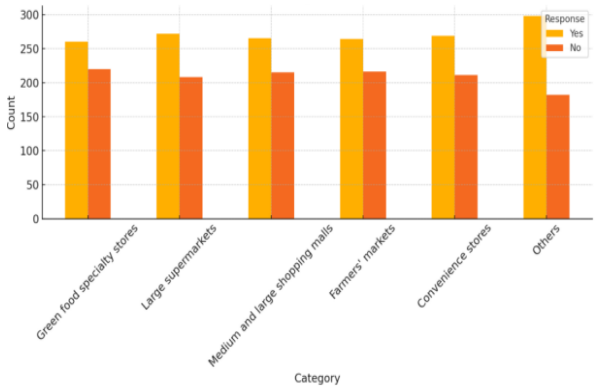

Figure 2. Place of green foods purchasing.

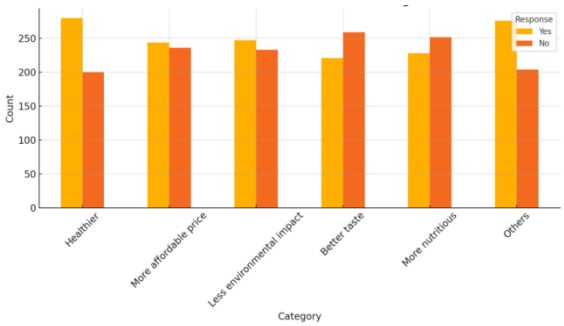

Figure 3. Motivations to consider when purchasing green food.

4.2. Reliability Test

The constructs' Cronbach's alpha coefficients are displayed in Table 3. With Cronbach's alpha values over the 0.7 cutoff, all constructions show good reliability, indicating the measurement's high internal consistency items [67]. Among these, attitude towards green food consumption (α = 0.870) and Subjective Norm (α = 0.863) show high reliability, underscoring the robustness of these constructs. Other constructs, such as Environmental Values (α = 0.860), Intention to Consume Green Food (α = 0.846), Perceived Behavioral Control (α = 0.843), and Environmental Self-Identity (α = 0.830), also demonstrate excellent internal consistency. These findings confirm that the instrument is reliable for measuring the intended variables, providing a solid foundation for subsequent confirmatory factor analysis and hypothesis testing.

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Table 3. Reliability Statistics.

Research variables	Number of questions	Cronbach's α
Environmental Values	5	0.860
Environmental Self-Identity	4	0.830
Intention to Consume Green Food	4	0.846
Attitude Towards Green Food Consumption	5	0.870
Subjective Norm	5	0.863
Perceived Behavioral Control	5	0.843

4.3. Validity Analysis

The factor analysis suitability evaluation for this research relies on the information provided in Table 4 which includes results from both Kaiser-Meyer-Olkin (KMO) sampling adequacy and Bartlett's test of sphericity. The KMO value of 0.929 indicates excellent data quality for factor analysis because the items show low individual correlation and shared significant variance. The large KMO metric proves that the data structure functions well for discovering latent constructs in the analysis. The dataset shows suitability for factor analysis through the results from the Bartlett's Test of Sphericity[67]. With a 12,232.550 Chi-Square statistic against 630 degrees of freedom the analysis reached an extreme significance level of 0.000. The correlation matrix is not an identity matrix, as demonstrated by the high statistical significance ($p < 0.001$). The null hypothesis is rejected verifies sufficient correlation between variables which makes factor analysis appropriate to use. Together, these results validate the use of factor analysis for extracting meaningful factors, ensuring the reliability and robustness of subsequent analyses.

Table 4. KMO and Bartlett's Test.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.929
Bartlett's Test of Sphericity	Approx. Chi-Square	12232.550
	df	630
	Sig.	0.000

4.4. Measurement Model

A measuring model inside the framework of confirmatory factor analysis is shown in Figure 4.

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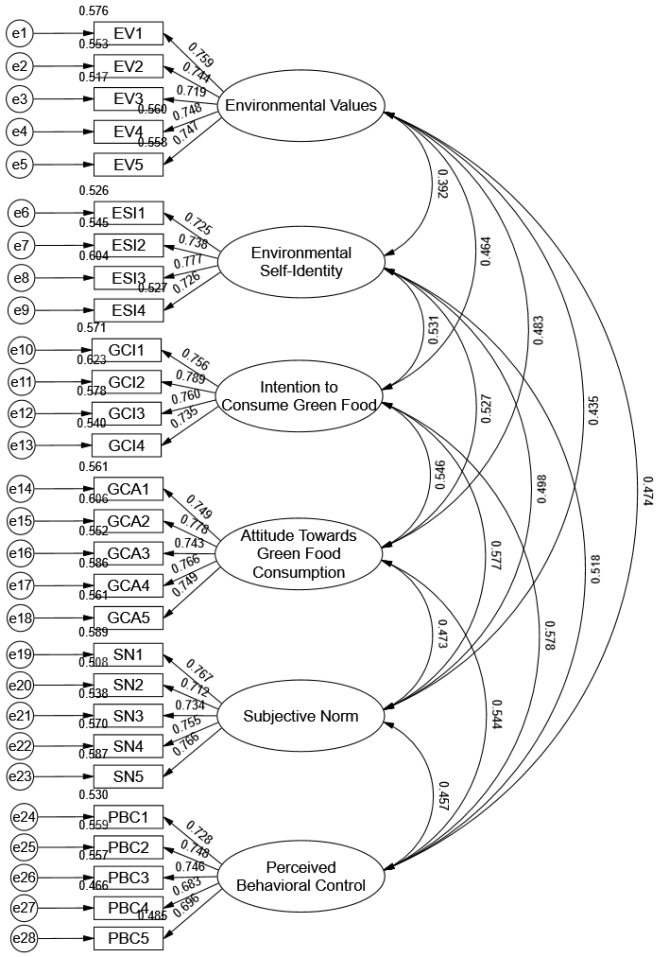

Figure 4. Measurement model.

Table 5 presents the fit indices for the measurement model employed in this study, providing a detailed evaluation of its adequacy in representing the data structure. The reported chi-square to degrees of freedom ratio (χ^2/df) is 1.080 (<3), suggesting that the proposed model and the observed data fit each other quite well. The fit indices for the measurement model are summarized in Table 5 and are evaluated against established benchmarks. RMSEA = 0.013 (< 0.08). GFI = 0.951 and AGFI = 0.941(>0.9) validate the model's adequacy in representing the data.NFI = 0.945, TLI = 0.995, and CFI = 0.996 (>0.9), demonstrating significant improvement over the null model. TLI and CFI values close to 1.0 emphasize the model's superior fit, capturing the covariance structure effectively. The results establish strong support for the model's capacity to explain the relationships among observed variables.

Table 5. Measure model fit index.

Fit index	χ2/df	RMSEA	GFI	AGFI	NFI	TLI	CFI
Reference standards	<3	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9
Result	1.080	0.013	0.951	0.941	0.945	0.995	0.996

The findings of CFA (confirmatory factor analysis) used to evaluate the measurement model's convergent validity are shown in Table 6. Three assessment measures, including factor loadings, CR (Composite Reliability), and Average Variance Extracted (AVE), were used in the research to evaluate the research.

Each observed variable shows its connection strength to its linked latent construct through Factor loadings[67]. The research factor loadings exceed the threshold value of 0.7 as all measurements reach between 0.683 and 0.789. These observed indicators demonstrate reliable measurement of their constructs because Composite Reliability values exceed 0.7. All constructs' CR

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values exceed the recommended threshold and measure between 0.830 and 0.870 which confirms reliable measurement and consistent indicator assessment of the underlying variables for this study. Convergent validity can be interpreted as good when AVE values exceed 0.5. The construct-related AVE values span from 0.519 to 0.578 while exceeding the benchmark thus demonstrating that most measured variables stem from each construct's underlying attributes.

Table 6. Convergence Validity.

Latent variables	Observation indicators	Factor loading	CR	AVE
Environmental Values	EV1	0.759	0.861	0.553
	EV2	0.744		
	EV3	0.719		
	EV4	0.748		
	EV5	0.747		
Environmental Self-Identity	ESI1	0.725	0.830	0.551
	ESI2	0.738		
	ESI3	0.777		
	ESI4	0.726		
Intention to Consume Green Food	GCI1	0.756	0.846	0.578
	GCI2	0.789		
	GCI3	0.760		
	GCI4	0.735		
Attitude Towards Green Food Consumption	GCA1	0.749	0.870	0.573
	GCA2	0.778		
	GCA3	0.743		
	GCA4	0.766		
	GCA5	0.749		
Subjective Norm	SN1	0.767	0.863	0.558
	SN2	0.712		
	SN3	0.734		
	SN4	0.755		
	SN5	0.766		
Perceived Behavioral Control	PBC1	0.728	0.844	0.519
	PBC2	0.748		
	PBC3	0.746		
	PBC4	0.683		
	PBC5	0.696		

The discriminant validity results for the structural equation model's constructs are shown in Table 7, which is essential for confirming that each research construct is empirically unique. When discriminant validity is evaluated using the Fornell-Larcker criterion, each construct's square root of the AVE (Average Variance Extracted), which is displayed diagonally in the table, can be greater than its correlations with other constructs (off-diagonal elements). This guarantees that a construct shares more variance with its indicators than with any other constructs in the model [68].The square roots of the AVE for each construct in this research range from 0.720 to 0.760, consistently exceeding the off-diagonal correlation values, confirming discriminant validity. For instance, the square root of the AVE for environmental values (0.744) surpasses its correlations with environmental self-identity (0.392) and intention to consume green food (0.464). Similarly, the square root of the AVE for intention to consume green food (0.760) is more significant than its correlations with subjective norm (0.577) and perceived behavioral control (0.578). All structures exhibit this pattern, demonstrating that each latent variable measures a distinct aspect of the green food consumption framework.

Table 7. Discriminant validity test.

Latent variables	EV	ESI	GCI	GCA	SN	PBC

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Environmental Values	0.744					
Environmental Self-Identity	0.392	0.742				
Intention to Consume Green Food	0.464	0.531	0.760			
Attitude Towards Green Food Consumption	0.483	0.527	0.546	0.757		
Subjective Norm	0.435	0.498	0.577	0.473	0.747	
Perceived Behavioral Control	0.474	0.518	0.578	0.544	0.457	0.720

Note: The diagonal is the associated variable's AVE squared. Environmental Values: EV; Environmental Self-Identity: ESI; Intention to Consume Green Food: GCI; Attitude Towards Green Food Consumption: GCA; Subjective Norm: SN; Perceived Behavioral Control: PBC.

4.5. Structural Equation Model

Figure 5 illustrates the structural equation model and path analysis diagram.

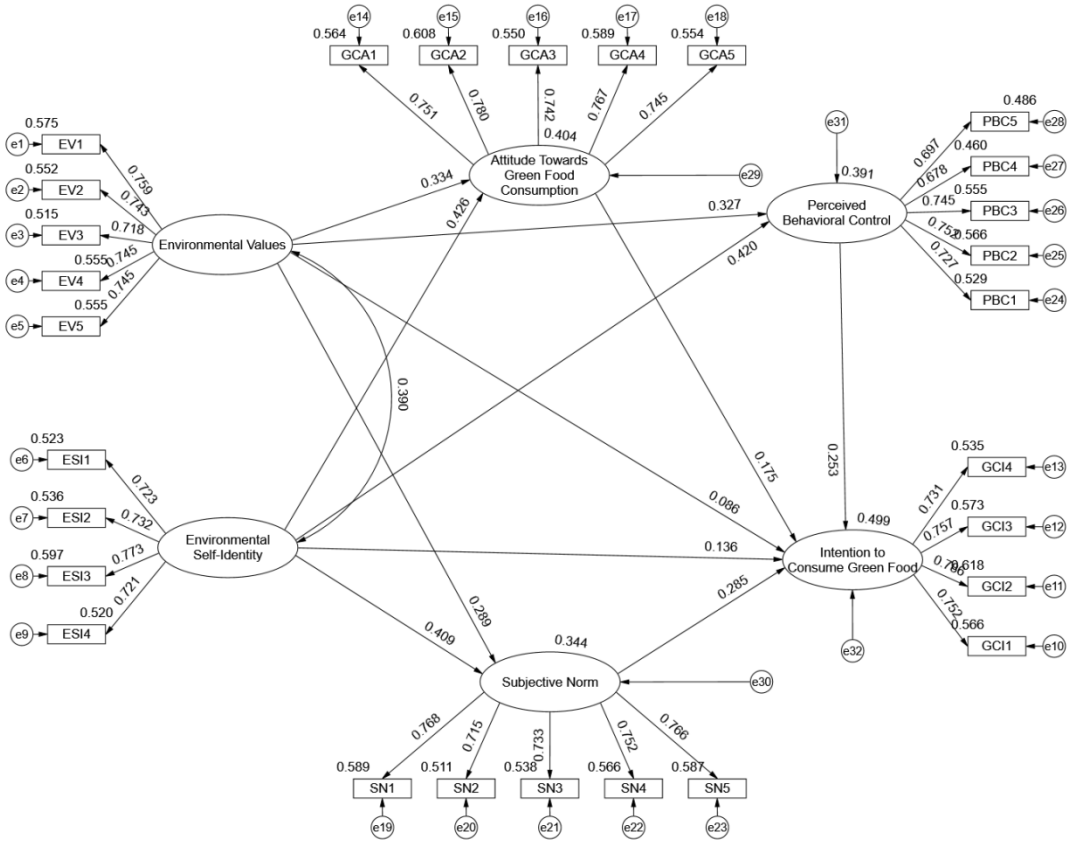

Figure 5. Structural equation model.

The fit indices for the structural equation model used to investigate the connections between latent components influencing Chinese Generation X's intentions to consume green foods are shown in Table 8. The χ^2/df=1.179 (<3) shows that the suggested model and the observed data fit each other very well. (<0.08) RMSEA = 0.013. GFIAGFI are both above the recognized threshold of 0.9, at 0.946 and 0.935, respectively. These numbers attest to the model's ability to adequately describe the data's variance and covariance structure. Additionally, incremental fit indices show excellent model performance. All three values are above the 0.9 threshold: NFI is 0.939, TLI is 0.989, and CFI is 0.990. These high scores suggest substantial improvement over a baseline independence model and validate the hypothesized relationships in the theoretical framework [69].

Table 8. Model fit index.

Fit index	TLI	GFI	AGFI	CFI	RMSEA	χ2/df	NFI
Reference standards	>0.9	>0.9	>0.9	>0.9	<0.08	<3	>0.9
Result	0.989	0.946	0.935	0.990	0.013	1.179	0.939

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Table 9 presents the results of the direct path effects analysis with the structural equation model, evaluating the hypothesized relationships among latent constructs that influence green food consumption intentions among Generation X. Each path is assessed using the p-value, standardized regression coefficient (β), critical ratio (C.R.), and standard error (S.E.), which collectively determine statistical significance and strength in these relationships. The degree to which predictor and outcome variables are related is shown by the standardized regression coefficient (β). A positive β signifies a direct positive influence, while a negative β can suggest a negative relationship[70]. For example, the β= 0.334 for the path from environmental values (EV) to intention to consume green food (GCI) confirms a significant positive relationship, suggesting that stronger environmental values are associated with higher intentions to consume green food. The S.E (standard error.) provides a measure of the precision of the β values by reflecting the variability of the estimate. A z-statistic for hypothesis testing is the C.R (critical ratio), which is computed by dividing the route coefficient by its standard error. A C.R. exceeding 1.96 indicates statistical significance at the 95% confidence level [71]. For instance, the C.R. of 6.341 for the EV → GCI path strongly supports its hypothesized relationship. The p-value further validates these findings, with values less than 0.05 confirming statistical significance. Relationships with p-values below 0.001 are denoted with "***," reflecting extremely robust effects. The analysis supports the majority of the hypothesized direct effects, with significant relationships observed for paths such as EV → GCI (H1), EV → GCA (H2), and ESI → GCI (H8). Notably, the path from Attitude Towards Green Food Consumption (GCA) to Intention to Consume Green Food (GCI) (H15) was not supported, as evidenced by a p-value of 0.144, indicating a lack of statistical significance. These findings emphasize the varying impacts of constructs like environmental values, self-identity, and social influences on green food consumption intentions, aligning with the study's theoretical framework.

Table 9. Direct path effects.

Hypothesis	Path	Estimate	β	S.E.	C.R.	P	Results
H1	EV→GCI	0.336	0.334	0.053	6.341	***	Supported
H2	EV→GCA	0.428	0.409	0.060	7.182	***	Supported
H4	EV→SN	0.344	0.327	0.057	6.050	***	Supported
H6	EV→PBC	0.296	0.289	0.055	5.417	***	Supported
H8	ESI→GCI	0.439	0.426	0.058	7.603	***	Supported
H9	ESI→GCA	0.451	0.420	0.062	7.296	***	Supported
H11	ESI→SN	0.175	0.175	0.059	2.965	0.003	Supported
H13	ESI→PBC	0.281	0.285	0.056	4.995	***	Supported
H15	GCA→GCI	0.086	0.086	0.059	1.462	0.144	Non-supported
H16	SN→GCI	0.140	0.136	0.071	1.973	0.048	Supported
H17	PBC→GCI	0.243	0.253	0.058	4.188	***	Supported

Note: EV: Environmental Values; ESI: Environmental Self-Identity; GCI: Intention to Consume Green Food; GCA: Attitude Towards Green Food Consumption; SN: Subjective Norm; PBC: Perceived Behavioral Control. ***: $p<0.001$.

The findings of the bootstrap analysis of the structural equation model's mediation effect are shown in Table 10. By analyzing how EV (environmental values) and ESI (environmental self-identity) impact the GCI (intention to consume green food) through mediating variables like attitude toward GCA (green food consumption), SN (subjective norm), and PBC (perceived behavioral control), this non-parametric approach assesses the significance of indirect pathways among constructs. The evaluation relies on three primary statistical indicators that include effect size measurement alongside S.E and bias-corrected 95% CI (confidence interval). The degree of the indirect pathway from independent variables to the dependent variable via mediators is indicated by the effect size. The linkage between environmental values and green food consumption intentions passes through green consumer attitudes according to H3 and shows a medium strength effect with a 0.059 value. S.E quantifies the effect size distribution needed to construct confidence intervals because it represents the variability of effect size measures. Bias-corrected 95% confidence intervals

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provide a robust measure of the precision of the indirect effects. The predicted mediation effects are supported by the findings. A considerable mediation effect, for instance, is shown by the pathway from ESI to GCA to GCI (H10), which has an effect size of 0.077, S.E. = 0.042, and a confidence interval of [0.004, 0.174]. Similarly, with an effect size of 0.083 and a confidence interval of [0.023, 0.141], the mediation effect of EV on GCI via SN (H5) is validated. Furthermore, with an effect value of 0.110 and CI = [0.029, 0.199], ESI affects GCI through PBC (H14), highlighting the significance of perceived behavioral control as a crucial mediator. The significance of attitudes, subjective norms, and perceived behavioral control in converting environmental values and self-identity into concrete intentions for consuming green foods is highlighted by these findings.

Table 10. Bootstrap test in Mediation effect.

Hypothesis	Mediation path	Size Effect	S.E.	Bias-Corrected 95%CI		Results
H3	EV→GCA→GCI	0.059	0.032	0.003	0.128	Supported
H10	ESI→GCA→GCI	0.077	0.042	0.004	0.174	Supported
H5	EV→SN→GCI	0.083	0.030	0.023	0.141	Supported
H12	ESI→SN→GCI	0.120	0.050	0.035	0.230	Supported
H7	EV→GCA→GCI	0.084	0.035	0.019	0.158	Supported
H14	ESI→PBC→GCI	0.110	0.044	0.029	0.199	Supported

Note: EV: Environmental Values; ESI: Environmental Self-Identity; GCI: Intention to Consume Green Food; GCA: Attitude Towards Green Food Consumption; SN: Subjective Norm; PBC: Perceived Behavioral Control.

Table 11 summarizes the total effects with the structural equation model, encompassing both direct and indirect influences of key constructs on the GCI and intermediary variables. The total effects are measured by effect size, SE, and bias-corrected 95% CI. Statistical significance is confirmed if the CI excludes zero. The results highlight the significant roles of EV and ESI in shaping attitudes towards GCA, PBC, and SN. Notably, ESI demonstrates a more substantial total effect on GCI (effect size: 0.447) compared to EV (effect size: 0.312). Among the intermediary variables, GCA, SN, and PBC significantly influence GCI, reinforcing their importance in green consumption intentions.

Table 11. Total Effects.

Path effect	Size Effect's	SE	Bias-Corrected 95%CI	
EV→GCA	0.336	0.071	0.186	0.471
ESI→GCA	0.439	0.075	0.298	0.579
EV→PBC	0.344	0.075	0.197	0.488
ESI→PBC	0.451	0.084	0.294	0.619
EV→SN	0.296	0.070	0.141	0.413
ESI→SN	0.428	0.087	0.265	0.615
EV→GCI	0.312	0.071	0.169	0.453
ESI→GCI	0.447	0.083	0.296	0.633
GCA→GCI	0.175	0.088	0.007	0.355
PBC→GCI	0.243	0.085	0.066	0.398
SN→GCI	0.281	0.095	0.095	0.482

5. Discussion

5.1. Theoretical Implications

By combining the theory of planned behavior, the value-attitude-behavior model, and the self-identity theory into a thorough framework for investigating the variables influencing Chinese Generation X's intentions to consume green foods, this research advances the theoretical understanding of green food consumption. Several theoretical contributions are highlighted in this research by expanding and improving upon earlier studies.

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Firstly, environmental values as both direct and indirect drivers of green food consumption intentions. Environmental values not only exert a direct positive influence on green food consumption intentions but also indirectly impact intentions through attitudes. Previous studies based on the Value-Attitude-Behavior model have emphasized the role of environmental values in shaping attitudes, which subsequently influence pro-environmental behaviors [72]. However, these studies often overlooked the broader influence of environmental values on other psychological constructs. For instance, Qi and Ploeger [56] demonstrated that environmental attitudes and health awareness significantly mediate the relationship between environmental values and green food purchase intentions, especially during the COVID-19 pandemic. This research extends the Value-Attitude-Behavior model by revealing that Environmental values have a substantial impact on perceived behavioral control and subjective standards, which offers a more thorough explanation of their fundamental significance in green food consumption practices. Although environmental values have a beneficial impact on attitudes and intentions [32]. Moreover, Arya, Chaturvedi [23] emphasized the interplay between environmental values and behavioral constructs such as attitudes and PBC in predicting pro-environmental behaviors, further supporting the findings of this study.

Second, the results show that attitudes, subjective norms, and perceived behavioral control are all strongly influenced by environmental self-identity, which also has a major direct impact on intentions to consume green foods. People who strongly identify as environmentalists are more likely to participate in sustainable practices [59], aligns with research by Carfora, Cavallo [53], which highlighted how ethical the association between green activity and consumption ideals is mediated by self-identity. Intentions among Generation Z, this research extends self-identity theory by demonstrating how environmental self-identity indirectly influences green food consumption intentions through these mediators, emphasizing its multidimensional impact. Previous research has mostly examined the direct correlation between conduct and self-identity, ignoring how it interacts with other concepts like perceived behavioral control and subjective norms [53]. Qi and Ploeger [51] further support this by showing that self-identity influences sustainable behaviors through moral norms, adding to the multidimensional nature of self-identity explored in this study. The research demonstrates environmental self-identity works as an essential factor for shaping pro-environmental behaviors during green food consumption situations.

This research demonstrates that feelings towards others and sense of internal control together with personal attitudes function as intermediaries which link environmental values with environmental self-identity to green food consumption intentions. According to the research findings attitudes serve as intermediary mechanisms instead of primary predictors for this specific group [55]. Subjective norms together with perceived behavioral control demonstrate direct relationships with green food consumption intentions according to the research findings of Zhao, Fan [54]. These findings support their key role in promoting green consumption behaviors particularly for Generation Z in different cultural settings. The incorporation of environmental self-identity and environmental values into the Theory of Planned Behavior framework improves its capacity to predict actual behavior. The research conducted by Wongsaichia, Naruetharadhol [58] presented evidence about how consumption values and self-identity influence perceived behavioral control in the decision-making process.

This research combines constructs from different behavioral models to produce an extensive understanding of how psychological processes drive green food consumption decisions. This research brings forward new ideas about identity-based pro-environmental behavior influences by using the findings presented in Alam, Ahmad [52]. The research advances knowledge about value systems and perceptions together with self-identity in their ability to mold pro-environmental conduct so researchers can build enhanced theoretical frameworks next.

5.2. Practical Implications

The investigation delivers practical guidance which helps policymakers and marketers and business operators and consumers to boost green food purchasing among Generation X consumers in China. Specific strategies for sustainable behavior growth and market expansion in the green food

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sector can be developed by stakeholders who reference the study's measurement items while working on targeted psychological and informational factors vectors.

Policy stakeholders should use environmental values and environmental self-identity strength to promote sustainable consumer patterns. The development of public policies should rest on consumer values and identity points. The education initiative can include promotional activities which demonstrate how green food benefits both the environment and human health to link these principles with sustainable operations. The effectiveness of eco-labeling programs can improve when measures are taken to boost consumer trust in these programs. Organizations that provide eco-friendly incentives such as tax incentives and financial protection programs lower the cost to access these initiatives. The integration of green food education into educational programs and community initiatives helps people develop environmental values and personal identity during childhood thus establishing lasting patterns of sustainable food habits.

Marketers need to direct efforts toward enhancing consumer attitudes toward green food consumption together with influencing how consumers perceive their peers in relation to such behavior. This research demonstrates both health advantages and family impact on wellness. Advertising green food should demonstrate its health and sustainability aspects as well as its ethical values to build better attitudes and form positive social standards. The messages spread effectively through digital platforms which include WeChat, Weibo and TikTok. User-generated content combined with influencer participation helps marketers develop stronger social representation of their green food products.

For business operators, reducing barriers to green food purchases is critical. The business should be expanding the availability of green food in diverse retail channels, including supermarkets, speciality stores, and e-commerce platforms, which can directly address these barriers. Online platforms can streamline the shopping experience by offering transparent pricing, detailed product descriptions, and user-friendly interfaces. It should also encourage customer engagement initiatives, such as loyalty programs or farm visits. Additionally, Generation X consumers should take an active role in promoting sustainable consumption. Given their financial stability and growing environmental awareness, Generation X can prioritize green food products in their purchases, advocate for green food practices with their social networks, and participate in local sustainability initiatives. Consumers can leverage platforms like community-supported agriculture programs or group-buying events to enhance social influence and foster collective consumption behaviors. Sharing personal green achievements on social media can also reinforce their environmental self-identity while encouraging peers to adopt similar practices.

Collaboration between stakeholders is essential to sustain the green food market. Policymakers and business operators can address consumer concerns, such as authenticity and pricing. Standardizing certification systems and promoting ethical production practices can bolster consumer confidence, which means that all the stakeholders should joint efforts to enhance supply chain transparency and promote fair pricing, which can further support market expansion.

In conclusion, these practical implications underscore the importance of targeted efforts by policymakers, marketers, business operators, and consumers to promote green food consumption. By focusing on specific survey items related to environmental values, self-identity, attitudes, and subjective norms, stakeholders can drive sustainable consumption behavior among Generation X. Enhanced accessibility, educational initiatives, and social influence strategies can collectively expand the green food market while advancing broader goals of environmental sustainability and public health.

5.3. Conclusion

Environmental values and environmental self-identity, as well as its relationship to attitudes, perceived behavioral control, and subjective standards, are the main topics of the research on Chinese Generation X's intents to consume green foods. The study's findings demonstrated that environmental values and environmental self-identity are significant predictors of intentions to consume green foods. Through the use of mediation variables like attitudes, subjective norms, and perceived behavioral control, these factors have direct consequences in their influence on sustainable

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merchandise choices. The research demonstrates that environmental self-identity creates a larger total effect on green food consumption intentions than environmental values because identity-related motivations substantially drive sustainable consumption behaviors for Generation X.

The research encompasses only Generation X participants from China which prevents wider applicability of results across different age ranges or cultural environments. Research limitations can be overcome through extensive population sampling for demographic diversity and establishing international comparisons to investigate different population and geographical patterns in green food consumption behavior. The cross-sectional research method shows behavior at one moment in time failing to track evolving consumer behavior and changing preferences regarding attitudes or values or consumption patterns. This research evaluates psychological along with informational aspects but fails to investigate fully the external influences which include market competition and economic constraints and public policy interventions. The implementation of pricing strategies with subsidy programs together with supply chain enhancements can bring a better perspective to understand how it affect green food consumption.

Research should combine these external factors to strengthen the explanatory capacity of the framework. The qualitative research method consisting of either interviews or focus groups should be added to existing quantitative research as these methods deliver detailed information about consumer behavior and understanding of cultural barriers to green food adoption. This research demonstrates that green food consumption intentions result from combinations between environmental values and self-identity and attitudes as well as subjective norms and perceived behavioral control. The gathered information enables stakeholders at the policy level and marketing functions and operator businesses to create specific programs that can encourage sustainable consumption patterns. The combination of accessible green food markets with educational programs and social influence programs can expand the market while protecting public health along with the environment. Stakeholders working together help link personal driven factors with social objectives to develop a sustainable customer culture that increases environmental sustainability throughout society.

Appendix 1. Measurement.

Variable	Items
Environ-mental Values	EV1: It is important to me that my consumption does not cause harm to the environment.
	EV2: When making many decisions, I consider the potential impact of my actions on the environment.
	EV3: My consuming habits are influenced by my concern for the environment.
	EV4: I worry about wasting our planet's resources.
	EV5: I am willing to make it inconvenient to take more environmentally friendly actions.
Environmental Self-Identity	ESI1: I consider myself a consumer who actively chooses environmentally friendly products.
	ESI2: I consider myself a person who is very concerned about environmental issues, and this concern influences many choices in my daily life.
	ESI3: If others praise me for having an environmentally friendly lifestyle, I can feel proud.

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	ESI4: Purchasing green food makes me feel that I am an environmentally friendly consumer.
Green Food Consumption Intention	GCI1: I am willing to choose and purchase green food continuously.
	GCI2: I purchase green food even if the price is higher than typical food.
	GCI3: I plan to purchase green food in the near future.
	GCI4: I buy green food because it are eco-friendly.
Attitude Towards Green Food Consumption	GCA1: I strongly support the behavior of purchasing green food.
	GCA2: I believe that consuming green food can help to reduce pollution and also help to improve the environment.
	GCA3: I believe that consuming green food can help conserve natural resources.
	GCA4: Considering the potential health benefits of green food, I am willing to try and adopt this consumption choice.
	GCA5: I feel good about myself When I buy green food.
Subjective norm	SN1: Most people who are important to me think I should consume green food.
	SN2: Most people who are important to me advise me to consume green foods.
	SN3: Most people whose opinions I value advise me to choose green food.
	SN4:Most of the people I respect and admire choose green foods.
	SN5: I feel under social pressure to preserve the environment.
Perceived Behavioral Control	PBC1: Given my pension and savings, I tend to purchase green food.
	PBC2: I have the resources, time and willingness to purchase green food.
	PBC3: If stores near my home sell green food and are easily accessible, I can regularly purchase green food.
	PBC4: I believe that with clear labeling, Generation X can quickly identify and choose green food.
	PBC5: There are likely to be plenty of opportunities for me to purchase green food.
Green Food Knowledge	GFK1: I am quite familiar with green food.
	GFK2: I often see green food in shopping places.
	GFK3: I have often observed green food, although I did not make purchases.
	GFK4: I have often read articles or news about or have learned about green food.
	GFK5: It frightens me to imagine that many of the products I use disrupt the environment.
	GFK6: Humans are really abusing the environment.

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	GFK7: The balance of nature is easily disrupted, especially by human activity.
	GFK8: It should take responsibility for environmental issues as we are the cause of the environment.

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