

Study on the Influence of Perceived Value of Green Agricultural Products on Purchase Intention

Zhu Liang¹ and Rashed Mustafa²

¹Phd Researcher, Binary university of Management & Entrepreneurship Malaysia, Lecturer, Guangxi University of Finance and Economics, Nanning, Guangxi, China, ²Professor & Dean, Faculty of Engineering University of Chittagong Chittagong-4331, Bangladesh

DOI Link: <http://dx.doi.org/10.6007/IJARPED/v14-i3/26620>

Published Online: 30 September 2025

Abstract

With growing public awareness of environmental protection, consumption patterns are evolving, with green consumption emerging as a prevailing trend. Green agricultural products, renowned for their safety and eco-friendly nature, have garnered significant attention. This study investigates the consumption patterns of green agricultural products in Guangxi through an online survey that collected 316 valid questionnaires. Using SPSS software, we conducted descriptive statistics and item discrimination analysis to examine how different dimensions of perceived value influence purchasing intentions across consumer groups. The findings reveal that perceived value comprises four dimensions: functional benefits, environmental sustainability, social responsibility, and food safety. Both perceived value and subjective norms positively impact purchase intention, with subjective norms serving as a mediating factor between these two dimensions. This study not only helps businesses and industry professionals better understand the mechanisms driving consumer purchasing decisions but also promotes the development of the green agricultural product market while advancing the adoption of sustainable consumption practices.

Keywords: Perceived Value, Green Agricultural products, Purchase Intention

Introduction

With growing global environmental awareness and living standards, green and healthy consumption has become a public focus (Hossain et al., 2025; Hossain et al., 2024; Ogiemwonyi et al., 2023). The Chinese government prioritizes green agricultural product development. In 2022, the Ministry of Agriculture launched an action plan for sustainable agriculture, and the 2024 Central Document No.1 emphasized revitalizing green agriculture. As global ecological challenges increase, green agricultural products are crucial for sustainable development. Although "Green Food" certified products are popular, many producers lack technical investment due to yield issues. Consumers now consider environmental and social factors besides product quality (Hossain et al., 2024). The key market development challenge is to enhance consumer awareness and stimulate purchasing willingness.

This study analyzes consumer experience to understand how perceived value affects purchase intention, aiming to provide insights for green agricultural product development and contribute to ecological conservation. It examines consumer perspectives on green agricultural products by synthesizing theories on perceived value, subjective norms, and purchase intention. Based on rational behavioral theory and perceived value analysis, it explores the relationship between perceived value and purchase intention, enriching green consumption theories. By introducing subjective norms as mediating variables, this work applies consumer - perceived value concepts to green agriculture, clarifying the internal mechanisms of value perception.

Eco - friendly agricultural products meet consumers' demands for quality and safety (Ogiemwonyi et al., 2020; Hossain et al., 2023; Hossain et al., 2022). As environmental awareness and purchasing habits change, this study proposes multi - faceted strategies. It establishes a framework linking perceived value to purchase intent, analyzes consumer behavior, and identifies green consumption drivers. These insights guide consumers, businesses, and governments. Consumers can select quality products and enhance safety awareness. Enterprises can optimize product strategies and expand sales channels. Governments can create incentive policies and regulatory measures. Ultimately, widespread use of eco - friendly products reduces pollution, promotes ecological civilization, and strengthens social responsibility (Hossain et al., 2020).

Problem Statement

According to current research, few scholars have studied the impact of multi-dimensional perceived value on consumers' purchase intention in the field of green agricultural products. This study constructs a four-dimensional perceived value system to study the field of green agricultural products, comprehensively analyzes the constituent elements of perceived value and its influence on purchase intention, and optimizes the existing perceived value system.

In the field of green agricultural product research, most scholars focus on producers and enterprises. This study adopts a consumer-centric perspective, using perceived value as the dependent variable to explore factors influencing consumers' purchases of green agricultural products. It establishes a theoretical framework linking perceived value, psychological variables, and purchase intention, while further expanding the impact pathways of perceived value in shaping consumers' willingness to buy green agricultural products.

Limitation

The data in this study are only collected by questionnaires, without face-to-face communication with consumers, so the collected data may not be accurate.

The perception of value dimension was further categorized based on extensive literature review. This study adopted established measurement scales from previous research for questionnaire development. However, the limited selection of measurable items and the use of SPSS software for descriptive analysis and correlation studies on variables resulted in relatively simplistic measurement methods, which may introduce bias in the conclusions.

Literature Review

Organic and eco - agricultural products are essentially green agricultural products. King (1911) noted that traditional Chinese agriculture offers a theoretical basis for green agricultural

product development through efficient space - time use and organic fertilizer application. Okada Shigeru (2004) argued that following natural laws in agriculture is the basis for producing such products. Kamga (2013) defined organic agricultural products as those using natural manure, free of chemical residues, and compliant with organic farming rules. Tsutsumi M (2017) proposed they are produced based on sustainable development using natural resources.

Domestic scholars' interpretations of green agricultural products fall into narrow and broad perspectives. Narrowly, Yan Lijiao et al. (2003) said they include non - toxic, safe products like vegetables, fruits, and daily necessities. Liu Xinyu (2021) defined them as pollution - free, safe green products with certain features. Broadly, Huang Aiyun (2019) pointed out their positive impact on agricultural development and economic growth. Yue Benqi et al. (2024) and Hossain et al. (2024) defined them as products inspected by specialized institutions and produced sustainably. Zhao Yaxian (2025) emphasized they are innovative and free from chemical contamination. These studies show that while domestic and international definitions of green agricultural products vary, their core connotations are consistent. Foreign research focuses on organic agriculture, natural laws, and sustainable development, while domestic studies refine product characteristics and highlight their role in the ecological environment.

Consumers' perceived value involves their perceived performance and costs. Woodruff (1997) found that under specific circumstances, customers form expected utility based on personal expectations and purposes, and after actual experience, compare it with the actual experience to generate evaluations, a process called customer perceived value. Gallarza (2020) posits that in purchasing, consumers perceive costs through purchase - expense judgments and post - purchase product value and added - value perception, which constitute perceived value.

The definition of perceived value centers around consumer purchasing decisions and environmental factors. Dong Dahai et al. (1999) said it's the intrinsic worth recognized through consumers' subjective evaluations during purchases. Wang Gao (2004) explained it as the benefit consumers get from a product or service, representing the balance between cost and benefit. Liu Li (2016) and Hossain et al. (2020) found that consumers' perceived value can be assessed by the external value of products and services. Tan Xiaoqin et al. (2023) argued that it's an overall evaluation of a product's utility by comparing benefits and costs during purchase.

Domestic and foreign scholars define perceived value from different perspectives, influenced by consumers' attributes, product or service costs and utilities, which affect purchase decisions. Perceived value is categorized by price and quality factors. Levitt (1980) proposed it has perceptual, social, and emotional dimensions shown through product pricing and functional value. Swenyz (2001) empirically defined it from four perspectives: emotional, social, functional values, and price factors. Brochado et al. (2022) further categorized it into four dimensions in tourism, integrating economic value.

Previous scholars categorized perceived - value dimensions into two - dimensional, three - dimensional, and four - dimensional frameworks. Yang Long et al. (2002) proposed a four -

dimensional framework with a functional - value dimension about payment costs. Liu Junyue et al. (2020) developed a system of functional, affective, and social values. Huo Shenglü et al. (2023) revealed that these values in perceived value significantly influence purchase intention.

In summary, perceived value has evolved from a single to a multi - dimensional framework. In green agricultural products, its consumers' subjective judgment, affected by product performance, quality, external environment, and societal values. Its dimensions vary across fields and contexts and clearly influence purchasing decisions.

Many scholars have researched factors affecting consumers' purchase intention, mainly divided into four aspects: subjective norms, personal characteristics, and external situational factors. Consumer Personal Characteristics: Yin Shijiu (2013) said different age - groups and family structures affect consumers' preferences for green agricultural products. Older consumers care more about health and quality. Guo Bin et al. (2014) found income, age, and household size impact purchasing capacity. Ren Shennan et al. (2020) showed female consumers buy green agricultural daily food more often. Wang Hongyang et al. (2023) revealed age and education in the snack food industry affect perceived value and then purchase intention.

External environmental factors: Sheng Liying (2007) indicated price, product categories, and marketing channels influence green consumption. Yao Wen (2019) emphasized media information and positive word - of - mouth can stimulate purchase desire, and government policies are important. Cui Yue (2025) found product safety, pricing, and purchasing convenience affect purchase intention.

Consumer subjective norms: Fishbein et al. (1977) defined subjective norms as behaviors under environmental or group pressures. Cialdini (1991) categorized them into directive and descriptive types. Pacho (2020) confirmed their impact on green agricultural products. Brandao et al. (2021) showed they enhance purchase intention for eco - friendly clothing. Liu Ziwei (2021) and Liu Lixian et al. (2024) confirmed their role in green agricultural product purchases.

Based on scholars' research, consumer purchasing decisions are complex, influenced by personal and psychological factors. Subjective norms are particularly significant, and these two factors positively impact the willingness to buy green agricultural products, providing a theoretical basis for enhancing purchase intention. Researchers have found that perceived value influences consumer purchasing decisions and is a key factor in the sustainable development of green agricultural products. Peter et al. (1996) showed that perceived value stimulates purchase intentions by triggering buying desires. Kashyap et al. (2000) empirically revealed that customer - perceived value positively drives purchase intent. Sirdeshmukh et al. (2002) emphasized that consumers' perception and experience of value are critical for purchasing decisions.

Biswas (2015) proposed that consumption value varies with green certification and social value drives green agriculture's sustainable development. Semet et al. (2021) indicated that enhanced perceived value increases repeat purchase intentions. Many scholars have explored

how different dimensions of perceived value affect purchasing intentions in agricultural products. Cui Dengfeng (2018) found that functional, regional, emotional, and social aspects of perceived value positively influence consumers' purchase intention. Zhang Xuemu (2019) discovered that social and environmental values promote the willingness to buy green products.

Li Haiting (2022) and Hossain et al. (2022) showed that product type doesn't directly influence green purchasing intention, and green perceived value plays a mediating role. Xiao Wenlong (2024) demonstrated that perceived value drives purchase intention formation as it encompasses comprehensive product evaluations.

A systematic review of research shows that scholars have investigated the connection between perceived value and purchasing intention. While most treat perceived value as a mediating variable, this study views it as a prerequisite variable to analyze its extended impact pathways, providing new perspectives and directions for future research on green agricultural product purchasing intention.

The Perceived Value Theory, proposed by Zeithaml in the 1980s, states that consumers' purchasing decisions are affected by their willingness and attitudes towards a product or service, which are influenced by perceived value. The level of perceived value depends on the ratio of perceived benefits (including functional value, product performance, quality, and service) to perceived costs (such as monetary expenditure, time, physical effort, and mental energy). This theory examines consumers' overall evaluation of products or services from their perspective to help suppliers optimize strategies. So, enhancing perceived value can be done by improving shopping experiences, increasing benefits, and reducing costs to stimulate purchases.

The research on perceived value keeps evolving. Scholars expand its scope through various perspectives, categorize it into dimensions, and position it as a core competitive advantage for enterprises, showing diversified trends. For example, customer - perceived value is a key focus in finance, technology, and service industries. As competition intensifies, most companies consider consumers' subjective evaluations in their strategies. When buying green agricultural products, consumers assess benefits versus costs, and higher perceived value leads to stronger purchase intentions. Thus, this study explores the impact of different dimensions of customer - perceived value on the purchasing willingness for green agricultural products.

Consumers' purchase of green agricultural products is an individual behavioral intention (Hossain et al., 2022). The most representative framework for studying such behaviors is the Theory of Reasoned Action, proposed by Ajzen and Fishbein in 1975. It identifies subjective norms as key factors influencing behavioral intentions. Widely adopted by scholars globally in various research domains, it has laid a theoretical foundation for academic exploration of human behavioral intentions and action generation.

The Rational Behavioral Theory states that human behavior is rational, not just blind trend - following. Individuals' behavioral intentions are shaped by subjective perceptions and

attitudes, which then influence actual actions. Other factors influence behavioral tendencies through subjective norms, the intermediary variables in behavioral generation.

Behavioral intention is the intensity of an individual's subjective drive for specific actions, and subjective norms refer to how others' opinions affect individuals' decisions on whether to act. People follow others' behaviors and adjust their actions according to peer evaluations, in line with social perceptions. In this framework, behavioral attitudes, subjective norms, and behavioral intentions are interconnected, including emotional predispositions, multi-dimensional perceptions, and behavioral tendencies. Importantly, behavioral attitudes and subjective norms are crucial in shaping individual behavioral intentions.

Through systematic review of existing literature, it has been observed that scholars worldwide have continuously refined the framework for measuring customer perceived value, achieving significant research outcomes across various fields. This underscores the crucial importance of studying the relationship between customer perceived value and purchase intention in green agricultural products. However, analysis reveals that dimensions of perceived value vary across research subjects. Moreover, stimulating consumer purchasing intent is influenced not only by product attributes but also by consumers' purchasing experiences and psychological factors.

According to reviewed literature, most studies in green agricultural products treat perceived value as a mediating variable, examining its impact on purchase intention through the inherent characteristics of these products. Building on this foundation, this study investigates the mechanism by which perceived value affects purchase intention in green agricultural products, focusing on four dimensions of perceived value and using subjective norms from psychological factors as mediating variables.

Research Questions

Q1. How does the perceived value of green agricultural products affect the purchase intention?

Q.2 How does the perceived value of green agricultural products affect subjective norms?

Q.3 How does subjective norm affect purchase intention?

Research Objectives

RO1 To study the influence of perceived value of green agricultural products on purchase intention.

RO2 To examine the significant influence of perceived value of green agricultural products on subjective norms.

RO3 To analyze the effect of subjective specification on purchase intention.

Research Hypothesis

H1: The perceived value of green agricultural products significantly affects the purchase intention.

H2: The perceived value of green agricultural products significantly affects subjective norms.

H3: Subjective norms significantly affect purchase intention.

Research Methodology

This study focuses on green agricultural product consumers in Guangxi, exploring their purchasing willingness characteristics, influencing factors among different groups, and their pursuit of perceived value. With national policies promoting green agriculture, green consumption has drawn public attention. As green agricultural products drive sustainable farming, examining consumers' value perception is crucial for influencing purchasing decisions. This study aims to offer actionable recommendations for businesses and society to drive sustainable green - consumption growth.

The study developed its research framework by reviewing authoritative databases like CNKI and EBSCO, compiling literature on green agricultural products, perceived value, subjective norms, and purchase intention. Based on previous findings and theories such as rational behavior and perceived value, corresponding research models were established and research hypotheses were formulated.

After reviewing relevant literature, previously validated scales were used, and the Likert 5 - point scale was modified according to green agricultural product characteristics to develop the survey questionnaire. The questionnaire was distributed online. After data collection, valid responses were selected for empirical analysis.

Using SPSS data analysis software, descriptive statistics, item discrimination, reliability, and validity were conducted on each research variable to reveal the relationship between customer perceived value, subjective norms, and purchase intention, improve the influence mechanism of perceived value of green agricultural products, and verify the proposed hypotheses.

Sample Measurement

Based on the research model, variables in this study are perceived value, subjective norms, and purchase intention. Perceived value is a multi - dimensional construct with four dimensions: functional, green, social, and safety value. These variables were adapted from established scales by referring to previous research and adding specific survey content, leading to corresponding measurement instruments. The following sections define each sample to set up the scale framework.

Perceptual value is consumers' subjective evaluation of products or services, considering product attributes, utility, benefits, costs, personal expectations, and environmental factors. In this study, for green agricultural products with ecological friendliness, health safety, and social responsibility, functional value focuses on product quality, green value on environmental friendliness in the lifecycle, social value on the impact of consumption on sustainable development, and safety value on health and safety controls.

Thus, perceptual value is divided into four dimensions: Functional Value for meeting quality demands, Green Value for environmental friendliness and related benefits, Social Value for societal value, and Safety Value for health assurance during production. Based on this, we revised previous questionnaires to create a scale (Table 1).

Table 1

Perception value scale design

Independent variable	Number	Measurement items	Reference	
Function value	FV1	Green agricultural products are of better quality.	Sheth (1991)	
	FV2	Green agricultural products are more nutritious.		
	FV3	Green produce tastes better.		
	FV4	Green produce is fresher.		
Green value	GV1	Buying green agricultural products can help reduce environmental pollution and promote ecological environment optimization.	Junbo (2023)	Hu
	GV2	Buying green produce is good for environmental awareness.		
	GV3	Buying green agricultural products enables me to have the ability to improve the ecological environment and contribute to the sustainable development of society.		
社会价值	SV1	Buying green produce is a fashionable choice and more acceptable as a gift.	Junbo (2023)	Hu
	SV2	Buying green produce is a social idea these days.		
	SV3	Buying green produce helps to shape a positive and healthy personal image.		
Safety value	SaV1	Green agricultural products have less pesticide residues.	Zhang Guozheng et al. (2017)	
	SaV2	Green agricultural products are processed in a more standardized way.		
	SaV3	It is better for your health to eat green produce.		

Referring to the measurement method of subjective norms of green agricultural products by Liu Ying et al. (2024), relevant concepts are quantified. Here, subjective norms refer to the influence perceived by consumers from surrounding groups and social environment when purchasing green agricultural products. The specific measurement scale is shown in the following table 2.

Table 2

Scale design of subjective norms

metavariable	Number	Measurement items	Reference
Subjective norms	SN1	I think everyone around me wants me to buy green produce.	Liu Ying and Xu Xiaopeng (2024)
	SN2	I feel that buying green produce is in line with what my social circle thinks.	
	SN3	I think buying green produce is keeping up with the social consumption trend.	

Purchase intention refers to the possibility and subjective willingness of consumers to buy green agricultural products. The scale of this study is based on the purchase intention scale of Hu Junbo (2023), as shown in the following table 8.3.

Table 8.3 Scale design of purchase intention

Dependent variable	Number	Measurement items	Reference
Purchase intention	PI1	If the economic conditions allow, I would like to pay a certain amount more for green agricultural products.	Junbo Hu (2023) Error! Reference source not found.
	PI2	I would like to pay more attention to the cultivation process and nutritional value of green agricultural products.	
	PI3	After tasting the samples of green produce, I am likely to buy them	
	PI4	I think buying green produce is in line with current market demand.	
	PI5	When others ask me for advice, I would like to recommend green agricultural products.	
	PI6	In my daily life, I have many opportunities to buy green produce.	

The questionnaire structure of this study consists of three sections: The first section focuses on the perception and purchasing experiences of green agricultural products; the second section collects basic information such as gender, age, occupation, and monthly income; the third section constructs four dimensions of perceived value, subjective norms, and purchase intention scales based on established scales, all using the five-point Likert scale. This study adopted an online survey method, designing and distributing questionnaires through the Wenjuanxing platform. The data collection period lasted from January 12 to January 28, 2025, with a total of 316 valid responses collected. After screening for response duration and completeness, 30 invalid questionnaires were removed, resulting in a final effective rate of 91%.

This study constructs a research model based on rational behavior theory and perceived value theory. The study aims to investigate how perceived value influences purchase intention for green agricultural products. To deepen the perceived value theory framework, we set perceived value as an independent variable, subdivided into four dimensions: functional, environmental, social, and safety value. Subjective norms are incorporated as mediating variables, and purchase intention for green agricultural products is the dependent variable. The study explores how perceived value affects purchase intention.

The four dimensions are defined as follows: Functional value is the subjective evaluation of product characteristics and consumer psychology; environmental value is consumers' perception of the positive environmental impacts of products; social value is consumers' perception of the positive social impacts of products; safety value is consumers' judgment of the safety and health benefits of products. Combining research hypotheses with literature reviews, the final research model is shown in Figure 8.1.

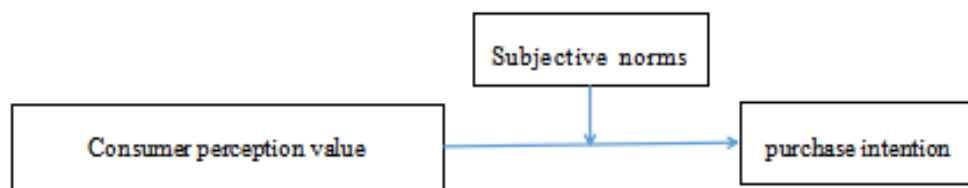


Figure 1 Research model

Data Analysis

Descriptive statistical analysis of sample characteristics

Table 3

Statistical characteristics of sample population

Characteristic variable	classification	Frequency	percentage (%)
Gender	Male	153	48.4
	女	163	51.6
Age	Age under 25 years	84	26.6
	26-35 years	143	45.3
	36-45 years	44	13.9
	46-55 years	26	8.2
	Over 55 years old	19	6
Educational background	Junior high school and below	18	5.7
	High school or technical secondary school	47	14.9
	College or undergraduate degree	201	63.6
	Master's degree or above	50	15.8
	Student,	43	13.6
Occupation	Government/public institution personnel	64	20.3
	Enterprise personnel	151	47.8
	Privately or individually-owned business	48	15.2
	Other	10	3.2
Marital status	Unmarried	116	36.7
	Married	200	63.3
Whether there are elderly people or children in the family	Yes	201	63.6
	No	115	36.4
Monthly income	Under 1500 yuan	32	10.1
	1501-3000 yuan	40	12.7
	3001-4500 yuan	128	40.5
	4501-6000 yuan	64	20.3
	More than 6,000 yuan	52	16.5

Table 3 is the basic information of this questionnaire survey. A total of 316 valid questionnaires were collected, and the following conclusions were drawn through descriptive statistical analysis.

In terms of gender distribution, males account for 48.4% and females account for 51.6%, with a male-female ratio of nearly 1:1, indicating that gender is not the decisive factor in purchasing green agricultural products, and both male and female consumers hold a positive attitude towards green agricultural products.

In terms of age structure, consumers aged 26-35 account for the highest proportion, reaching 45.3%, indicating that young and middle-aged groups are the main consumer groups of green agricultural products. This group pays attention to quality and experience, has an open consumption concept and is easy to accept new things.

In terms of educational level, 63.6% of the consumers have college or undergraduate education, indicating that most of the consumers who buy green agricultural products are people with higher education background and higher cultural level who are more likely to understand and tend to buy green agricultural products.

In terms of occupation distribution, enterprise personnel accounts for the highest proportion, which is 47.8%, consistent with the distribution of China's main consumer groups.

The marital status shows that 64.3% of the respondents are married, indicating that the married group pays more attention to family meals and is more likely to buy green agricultural products.

In terms of family composition, the proportion of families with elderly or children is relatively high, reflecting people's attention to healthy diet for the elderly or children.

In terms of monthly income, 40.5% and 20.3% respectively have a monthly income of 3001-4500 yuan and 4501-600 yuan, indicating that the middle- and high-income groups pay more attention to the nutritional value of products.

Descriptive statistical analysis of variables

Table 4

Descriptive statistics of sample variables

Variable	sample size	Minimum value	Maximal value(分)	Average value (分)	Standard deviation
Function value	316	1	5	3.8006	0.82171
Green value	316	1	5	3.7985	0.8138
Social value	316	1	5	3.7869	0.84304
Safety value	316	1	5	3.8407	0.82399
Subjective norms	316	1	5	3.6973	0.89094
purchase intention	316	1	5	3.7342	0.83961

The items for each variable in this study adopted a five-point scoring system, where "1" to "5" respectively represent completely disagree, disagree, neutral, agree, and completely agree. By calculating the maximum and average values of each variable and conducting factor analysis, the data in Table 3.5 were obtained. It can be observed that all variables fall within the 1-5 range with mean values exceeding 3.5, indicating significant differences among survey participants and demonstrating effective questionnaire design. The sample's attitudes toward all variables ranged between neutral and agree, with overall satisfaction at a moderate level.

Exploratory Factor Analysis

The exploratory factor analysis revealed a KMO value of 0.885 and a Bartlett's test statistic of 2817.392 ($P < 0.05$), indicating successful passage of the Bartlett's test for sphericity. Six factors were identified through this process, which demonstrated strong correlations with all items in the questionnaire. After rotation, the total explained variance reached 64.525%, effectively capturing 64.525% of the total information content. The rotated component matrix further showed factor loading coefficients with absolute values greater than 0.4, confirming a strong relationship between items and factors.

Table 5

Test of KMO and Bartlett's test for sphericity

Take a sufficient number of Kaiser-Meyer-Olin measurements		0.885
Bartlett's test of sphericity	Approximate chi-square	2817.392
	df	231
	p value	0

Project Differentiation Analysis

Based on item measurement results, this study used SPSS software to calculate total scores for each variable scale. Items were ranked in descending order, with the bottom 27% (ranked 85th at 102 points) designated as the low-score group and the top 27% (ranked 85th at 121 points) as the high-score group, coded as 1 and 2 respectively. Subsequent independent samples t-tests revealed that all items had significance values of 0.000, below the 0.05 threshold for statistical significance. This indicates good item discrimination, confirming that all items should be retained.

This study conducted reliability analysis through SPSS software. First, the variables were analyzed, and then the reliability of each variable scale was tested by Cronbach's coefficient. The α coefficient of each variable was calculated and summarized to obtain Table 6.

Table 6
Cronbach's a reliability test results of samples

Variable	ItemCorrect for total correlation s (CITC)	The α coefficient that has been deleted	Overall coefficient	α
Function value	FV1 0.653	0.699	0.784	
	FV2 0.584	0.736		
	FV3 0.548	0.753		
	FV4 0.581	0.737		
Green value	GV1 0.532	0.573	0.694	
	GV2 0.583	0.505		
	GV3 0.420	0.711		
Social value	SV1 0.632	0.638	0.763	
	SV2 0.623	0.650		
	SV3 0.531	0.750		
Safety value	Sav10.637	0.545	0.732	
	Sav20.558	0.642		
	Sav30.477	0.741		
Subjective norms	SN1 0.638	0.618	0.758	
	SN2 0.586	0.680		
	SN3 0.545	0.728		
purchase intention	PI1 0.705	0.837	0.867	
	PI2 0.614	0.853		
	PI3 0.681	0.841		
	PI4 0.649	0.847		
	PI5 0.649	0.847		
	PI6 0.682	0.841		

As shown in Table 6, the CITC values show a positive correlation with the coefficient of α , both exceeding 0.4. The overall reliability of the questionnaire reaches 0.905. Among the Cronbach's α coefficients for different dimensions—functional value (0.784), social value (0.694), safety value (0.764), subjective norm (0.758), and purchase intention (0.867)—all are close to or above 0.7. These figures demonstrate strong inter-item correlations and excellent reliability, making the questionnaire suitable for subsequent analyses.

Validity Analysis

Through exploratory factor analysis of various variables, the structural validity was analyzed, and the KMO and Barlett's sphericity values of the questionnaire and each variable were obtained. Finally, the results are summarized in Table 9.5

Table 7

KMO and Bartlett sphericity test for each variable

Variable	KMO	Bartlett's test for sphericity Approximate chi-square	Free degree	conspicuousness
Overall variables	0.885	2817.392	231	0
Perceive value	0.839	1342.515	78	0
Subjective norms	0.682	237.187	3	0
purchase intention	0.860	824.139	15	0

As shown in the table, the overall KMO value of the questionnaire reached 0.885, exceeding the threshold of 0.8. All other variables demonstrated KMO values above 0.6, meeting the essential criteria for factor analysis and confirming the data's suitability for such research. The Bartlett's test of sphericity yielded statistically significant results ($p < 0.05$), validating strong correlations between the five factors and the items.

Correlation Analysis

This study uses Pearson correlation coefficient analysis to explore the correlation between the four dimensions of perceived value and subjective norms and purchase intention. The correlation coefficient ranges from -1 to 1, where a coefficient less than 0 indicates a negative correlation between variables, and a coefficient greater than 0 indicates a positive correlation between variables. The analysis results are shown in Table 9.6.

Table 8

Correlation analysis of variables

Variable	function value	Green value	Emotional value	social value	Safety value	Economic value	Subjective norms	purchase intention
function value	1							
Green value	0.421**	1						
social value	0.393**	0.495**	0.320**	1				
Safety value	0.430**	0.417**	0.394**	0.387**	1			
Subjective norms	0.459**	0.394**	0.405**	0.424**	0.413**	0.712**	1	
purchase intention	0.383**	0.468**	0.474**	0.417**	0.490**	0.368**	0.396**	1

** . Significantly correlated at the 0.01 level (bilateral)

According to Table 8, the correlation coefficients between the four dimensions of perceived value and subjective norms and purchase intention are between 0.3 and 0.5 at the significance level of 0.01, all of which are greater than 0.3, indicating that there is a significant positive correlation between the variables, and the correlation hypothesis is preliminarily verified.

Regression Analysis

The correlation analysis preliminarily validated the relationships between variables, enabling further regression analysis to clarify quantitative relationships among them. Through multivariate linear regression analysis, we conducted F-tests, R^2 values, and T-tests for independent variables, yielding the results in Tables 9. The model's R^2 value of 0.403 indicates good fit. The F-test showed a significant F-value of 42.317 with a p-value <0.05 , confirming that all dimensions of perceived value significantly influence purchase intention.

Among the variables, the regression coefficients of the four dimensions of perceived value are all greater than 0. The coefficients of functional value, green value, social value and safety value are 0.104, 0.236, 0.150 and 0.299 respectively, with P values all less than 0.05. All these indicate that each dimension positively affects purchase intention, so hypotheses H1 are all valid.

Table 9

Regression analysis of variables

Dependent variable	Independent variable	Non-standardized coefficients		Standardization coefficients	t	sig
		B	Standard error Beta			
purchase intention	(constant)	0.728	0.238		3.063	0.002
	function value	0.104	0.055	0.102	1.899	0.040
	Green value	0.236	0.058	0.228	4.078	0.000
	social value	0.150	0.055	0.151	2.749	0.006
	Safety value	0.299	0.055	0.293	5.472	0.000
	R2	0.352				
	F value	42.317	(P=0.000)			

Analysis of Mediation Effect

This study investigates the mediating role of subjective norms in the influence of perceived value (divided into four dimensions: functional value, green value, social value, and safety value) on purchase intention. Through hierarchical regression analysis, the following findings were obtained.

(1) Test of the mediating effect of independent variables on subjective norms

Table 9

Test of the mediating effect of perceived value dimensions on subjective norms

	Non-standardized coefficients		Standardization coefficients		P
	B	Standard error Beta		T	
(constant)	0.000	0.047		0	1
function value	0.256	0.055	0.256	4.65	0.000
Green value	0.113	0.057	0.113	1.969	0.040

social value	0.198	0.056		3.534	0.000
Safety value	0.179	0.055	0.179	3.269	0.001
R ²	0.320				
F 值	36.621				

As shown in Table 9, the model was constructed with subjective norms as the dependent variable and functional value, green value, emotional value, social value, safety value, and economic value as independent variables. The R² value of 0.320 indicates good model fit, while the F-value of 36.621 demonstrates statistical significance. Notably, the P-values for functional value, green value, social value, and safety value all remained below 0.01, meeting the required threshold for statistical significance. These findings confirm the validity of hypotheses H2.

(2) Test of the mediating effect of subjective norms on purchase intention

Table 10

Test of the mediating effect of subjective norms on purchase intention

Non-standardized coefficients			Standardization coefficients _T		P
	B	Standard error	Beta		
(constant)	0.000	0.052		0.000	1.000
Subjective norms	0.396	0.052	0.396	7.651	0.000
R ²	0.157				
F value	58.535				

As shown in Table 10, the model was constructed with purchase intention as the dependent variable and subjective norm as the independent variable. The R² value of 0.157 indicates good model fit, while the F-value of 58.535 and P-value of 0.000 (P<0.01) confirm that subjective norm significantly influences purchase intention, thus supporting Hypothesis H3.

Hypothesis Test Results

In this study, SPSS software was employed for data analysis. The process began with descriptive statistics of the sample, followed by item discrimination analysis. Subsequently, reliability and validity tests were conducted to ensure the questionnaire's validity. Finally, correlation and regression analyses were performed to verify relationships between variables. The specific validation results are as follows:

Table 11

Summary of the results of the research hypotheses

Number	Research hypothesis	Result
H1	The perceived value of green agricultural products significantly affects the purchase intention	supportive
H2	The perceived value of green agricultural products significantly affects subjective norms	supportive
H3	Subjective norms significantly affect purchase intention	supportive

Finding and Conclusion

Through literature review and empirical analysis, this study investigates the influence of perceived value dimensions on subjective norms and purchase intention. The dimensions of perceived value in green agricultural products influence purchase intention and subjective norms, and subjective norms partially mediate their relationship. The conclusions are as follows:

Firstly, each dimension of perceived value significantly affects purchase intention. Empirical analysis shows that all four dimensions (functional, green, social, safety values) have significant regression coefficients ($p < 0.05$), with safety, green, and social values more significant than functional value. Consumers prioritize environmental, social, and safety values, and 20% of respondents were unaware of green products, highlighting the need for consumer education.

Secondly, Perceived value positively affects subjective norms. Mediation effect testing shows that functional, social, green, and safety values enhance consumers' subjective norms. Empirical analysis reveals that functional, safety, and social values most strongly influence subjective norms, indicating food safety concerns and public - welfare advocacy impact purchasing decisions.

Thirdly, there is a mediating effect of subjective norms between perceived value and purchase intention. Analysis of two mediation - effect models shows that consumers are influenced by social group norms after weighing product value and develop purchase intention, indicating the importance of social influence. There may be issues like insufficient publicity and group - effect in the green agricultural product market.

Recommendation

Government level:(1) Building R&D teams to address cultivation challenges. (2) Establish a market supervision system to safeguard the interests of consumers. (3) Do a good job in the publicity of green agricultural products, so that information is open and transparent. Enterprise level:(1) Take safety and technological innovation as the development concept to guide employees to do a good job in production and research and development. (2) From the perspective of diversified marketing, meet the needs of consumers. (3) Pay attention to consumers' shopping experience and create product features.

References

- Ajzen, I. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall.
- Biswas, A., & Roy, M. (2015). Leveraging factors for sustained green consumption behavior based on consumption value perceptions: Testing the structural model. *Journal of Cleaner Production*, 95, 332–340.
- Brandão, A., & Da Costa, A. G. (2021). Extending the theory of planned behaviour to understand the effects of barriers towards sustainable fashion consumption. *European Business Review*, 33(5), 742–774.
- Brochado, A., Verissimo, J. M. C., & de Oliveira, J. C. L. (2022). Memorable tourism experiences, perceived value dimensions and behavioral intentions: A demographic segmentation approach. *Tourism Review*, 77(6), 1472–1486.
- Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 24, pp. 201–234). Academic Press.
- Fishbein, M., & Ajzen, I. (1977). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Addison-Wesley.
- Gallarza, M. G., & Gil Saura, I. (2020). Consumer value in tourism: A perspective article. *Tourism Review*, 75(1), 41–44.
- Hossain, M. I., Jamadar, Y., Islam, M. F., Rashed, M., & Akter, T. (2025). Environmental sustainability practices in SMEs: Insights from integrated PLS-SEM and fsQCA approaches. *Journal of Cleaner Production*, 503, 145185.
- Hossain, M. I., Islam, M. T., Kumar, J., & Jamadar, Y. (2025). Harnessing STARA for enhancing green performance of hospitality industry: green HRM, employees commitment as mediators and psychological climate as moderator. *Journal of Hospitality and Tourism Insights*.
- Hossain, M. I., Ong, T. S., Jamadar, Y., Teh, B. H., & Islam, A. (2024). Nexus among green entrepreneurship orientation, green ambidexterity innovation, green technological turbulence and green performance: moderated-mediation evidence from Malaysian manufacturing SMEs. *European Journal of Innovation Management*.
- Hossain, M. I., Kumar, J., Islam, M. T., & Valeri, M. (2024). The interplay among paradoxical leadership, industry 4.0 technologies, organisational ambidexterity, strategic flexibility and corporate sustainable performance in manufacturing SMEs of Malaysia. *European Business Review*, 36(5), 639-669.
- Hossain, M. I., Teh, B. H., Tabash, M. I., Chong, L. L., & Ong, T. S. (2024). Unpacking the role of green smart technologies adoption, green ambidextrous leadership, and green innovation behaviour on green innovation performance in Malaysian manufacturing companies. *FIIB Business Review*, 23197145231225335.
- Hossain, M. I., Ong, T. S., Tabash, M. I., & Teh, B. H. (2024). The panorama of corporate environmental sustainability and green values: evidence of Bangladesh. *Environment, Development and Sustainability*, 26(1), 1033-1059.
- Hossain, M. I., Teh, B. H., Dorasamy, M., Tabash, M. I., & Ong, T. S. (2023, May). Ethical Leadership, Green HRM Practices and Environmental Performance of Manufacturing SMEs at Selangor, Malaysia: Moderating Role of Green Technology Adoption. In *International Scientific Conference on Business and Economics* (pp. 85-104). Cham: Springer Nature Switzerland.

- Hossain, M. I., Teh, B. H., Chong, L. L., Ong, T. S., & Islam, M. T. (2022). Green human resource management, top management commitment, green culture, and green performance of Malaysian palm oil companies. *International Journal of Technology*, 13(5), 1106-1114.
- Hossain, M. I., Ong, T. S., Tabash, M. I., Siow, M. L., & Said, R. M. (2022). Systematic literature review and future research directions: drivers of environmental sustainability practices in small and medium-sized enterprises. *International Journal of Sustainable Economy*, 14(3), 269-293.
- Hossain, M. I., Ong, T., Heng, T., Mohd Said, R., & Siow, M. L. (2022). Nexus of stakeholder integration, green investment, green technology adoption and environmental sustainability practices: Evidence from Bangladesh textile SMEs. *Pertanika Journal of Social Science and Humanities*, 30(1), 253-281.
- Hossain, M. I., San, O. T., Ling, S. M., & Said, R. M. (2020). The role of environmental awareness and green technological usage to foster sustainable green practices in Bangladeshi manufacturing SMEs. *International Journal of Advanced Science and Technology*, 29(7s), 3115-3124.
- Jarvenpaa, S. L., & Todd, P. A. (1996). Consumer reactions to electronic shopping on the World Wide Web. *International Journal of Electronic Commerce*, 1(2), 59-88.
- Jackson, A. L., Olsen, J. E., & Granzin, K. L. (1993). An investigation of determinants of recycling consumer behavior. *Advances in Consumer Research*, 20(1), 481-487.
- King, F. H. (1911). Farmers of forty centuries, or permanent agriculture in China, Korea and Japan. *Nature*, 89(2229), 500.
- Kamga, A., Kouamé, C., Tchindjang, M., et al. (2013). *Environmental impacts from overuse of chemical fertilizers and pesticides amongst market gardening in Bamenda, Cameroon* [Research report].
- Kashyap, R., & Bojanic, D. C. (2000). A structural analysis of value, quality, and price perceptions of business and leisure travelers. *Journal of Travel Research*, 39(1), 45-51.
- Levitt, T. (1980). Marketing success through differentiation—of anything. *Harvard Business Review*, 58(1), 83-91.
- McKnight, D. H., Choudhury, V., & Kacmar, C. (2002). Developing and validating trust measures for e-commerce: An integrative typology. *Information Systems Research*, 13(3), 334-359.
- Monroe, K. B., & Krishnan, R. (1985). The effect of price-comparison advertising on buyers' perceptions of acquisition value, transaction value, and behavioral intentions. *Journal of Marketing*.
- Ogiemwonyi, O., Harun, A., Hossain, M. I., & Karim, A. M. (2023). The influence of green behaviour using theory of planned behaviour approach: evidence from Malaysia. *Millennial Asia*, 14(4), 582-604.
- Ogiemwonyi, O., Harun, A. B., Alam, M. N., Karim, A. M., Tabash, M. I., Hossain, M. I., ... & Ojuolape, M. A. (2020). Green product as a means of expressing green behaviour: A cross-cultural empirical evidence from Malaysia and Nigeria. *Environmental technology & innovation*, 20, 101055.
- Porter, M. E., & Millar, V. E. (1985). How information gives you competitive advantage. *Harvard Business Review*, 63(4), 149-160.
- Pacho, F. (2020). What influences consumers to purchase organic food in developing countries? *British Food Journal*, 122(12), 3695-3709.
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220.

- Sirdeshmukh, D., Singh, J., & Sabol, B. (2002). Consumer trust, value, and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37.
- Semet, H. A. F., Kindangen, P., & Tulung, J. E. (2021). The influence of consumer perceived value dimensions on consumer repurchase intention of imported thrift clothes (Study case: Rumah Live Online Manado). *Jurnal EMBA*, 9(4), 532–542.
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159–170.
- Tsutsumi, M., Ono, Y., Ogasawara, H., et al. (2018). Life-cycle impact assessment of organic and non-organic grass-fed beef production in Japan. *Journal of Cleaner Production*, 172, 2513–2520.
- Williams, J. S. E. (2004). Influence of variety and processing conditions on acrylamide levels in fried potato crisps. *Food Chemistry*, 90(4), 875–881.
- Woodruff, R. B. (1997). Customer value: The next source for competitive advantage. *Journal of the Academy of Marketing Science*, 25(2), 139–153.