

Research on Consumers' Green Consumption Behavior in the Post-epidemic Era

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ABSTRACT

This study investigates green purchasing behavior in the post-epidemic era, focusing on the influence of COVID-19 risk perception, perceived consumer effectiveness, subjective norms, and attitudes on eco-friendly purchasing decisions. Using the frameworks of the Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA), a survey of 310 valid responses was conducted, with data analyzed through IBM SPSS Statistics 27 and PROCESS v4.2. The findings reveal significant positive relationships between COVID-19 risk perception, subjective norms, attitudes toward eco-friendly products, and green purchase intentions, with consumer attitudes mediating the effects of risk perception on purchasing behavior. This research uniquely integrates TPB and TRA to address the attitude-behavior gap in sustainable consumption, providing insights into green purchasing behavior in mainland China and Macau. Despite the limited sample size and geographic scope, the study highlights practical implications for businesses and governments, emphasizing the importance of improving green product quality, affordability, and marketing strategies, as well as implementing subsidies and regulatory measures. The findings emphasize the increased awareness of environmental sustainability post-COVID-19, calling for policies to enhance green consumption and support long-term ecological and social progress.

Keywords: Green Consumption, Purchasing Behavior, Theory of Planned Behavior, Post-epidemic Era Background

Abbreviations

RP COVID-19 Risk Perception

PCE Perceived Consumer Effectiveness

SN Subjective Norms

ATP Attitude Toward Products

PBC Perceived Behavior Control

GPI Green Purchase Intention

GPB Green Purchase Behavior

INTRODUCTION

Research Background

The 21st century marks an era of rapid development. However, human activities, including the overuse of natural resources, have significantly harmed the environment, contributing to climate change and the emergence of infectious diseases. This environmental damage has contributed to climate change, resulting in the pollution of water, soil, and air, which in turn increases the risk of human exposure to various viruses and facilitates the emergence of new infectious diseases. The COVID-19 pandemic, which began in 2020, significantly impacted global health. As reported by the World Health Organization (WHO), by December 28, 2023, the total number of deaths worldwide had surpassed 6.9 million. While the pandemic has shown signs of stabilization in recent years, isolated outbreaks still persist. Data from the United Nations World Tourism Organization (UNWTO) shows that the number of international tourists fell by 22% in the first quarter of 2020 compared to the same period in 2019. This severely disrupted normal life and hindered global economic development. As the pandemic persisted, public concern over environmental degradation and its societal impacts grew. Serious environmental issues have heightened awareness of overall consumption patterns (Jaiswal & Kant, 2018). The concept of "green" typically refers to actions that promote environmental responsibility, sustainability, and ecological balance (Manakotla & Jauhari, 2007). As a result, environmentally conscious purchasing behavior involves selecting goods or services that offer ecological benefits, motivated by a sense of environmental duty (Mainieri et al., 1997). Previous studies suggest that some individuals who hold favorable views toward environmentally friendly products may not always follow through with their purchases. The disconnect between individuals' attitudes and their actual actions is commonly termed the attitude-behavior gap (Anvar & Venter de Villiers, 2014). This presents a major obstacle for sustainable purchasing behavior. Understanding the determinants of consumers' intentions and actions in this domain is crucial, as highlighted by the Theory of Planned Behavior (TPB) (Ajzen, 1985, 1991).

Influenced by the COVID-19 pandemic, consumption has become increasingly uncertain, and consumer confidence indices have fluctuated significantly in the short term (Fu Zhihua & Wang Zhigang, 2020). While many studies have delved into "residents' green purchasing behavior" and "consumption under COVID-19," few have examined the interplay between green consumption and residents' purchasing behavior during the pandemic. This study draws upon the Theory of Planned Behavior (TPB) and the Theory of Reasoned Action (TRA) as its theoretical framework, exploring sustainable purchasing behavior in the post-pandemic period. The research adopts TPB and TRA to examine green purchasing behavior specifically in the context of the post-pandemic era.

LITERATURE REVIEW

COVID-19 Risk Perception

COVID-19 risk perception (referred to as RP in this study) has had a profound impact on society. According to Shi Kan et al. (2003), the degree of risk perception is influenced by both the magnitude and severity of the risk. Thus, the more severe the pandemic, the higher the likely level of COVID-19 risk perception. Liu Shengfu and Li Long (2021) found that the pandemic's impact on overall consumption was characterized by its significant intensity and short duration. In the post-pandemic era, consumption levels often rebound under the stimulus of reasonable government policies, increasing consumer willingness to spend. Additionally, the pandemic's severity heightened awareness of the natural environment, emphasizing environmental protection in daily life, which, in turn, influences consumer attitudes, purchase intentions, and behaviors. Building on this reasoning, the research presents the following hypotheses:

H1: Perceived risks related to COVID-19 significantly influence consumers' attitudes toward eco-friendly products.

H2: Perceptions of COVID-19 risks strongly influence individuals' intentions to purchase eco-friendly products.

Perceived Consumer Effectiveness

Perceived consumer effectiveness (PCE), as defined in this study, is critical for analyzing purchasing decisions. Prudhomme and Raymond (2013) observed that even when individuals recognize environmental challenges, they may not adopt eco-friendly practices to address them. Furthermore, research by Kim and Choi suggests that PCE corresponds to two components of the TPB framework: perceived behavioral control and subjective norms. Drawing on these insights, this study formulates the following hypothesis:

H3: Perceived consumer effectiveness strongly influences individuals' attitudes toward environmentally friendly products.

Subjective Norms

Subjective norms (abbreviated as SN in this research), derived from the TPB framework and earlier studies, impact both purchasing intentions and consumer attitudes. Based on these insights, the following hypothesis is presented:

H4: Subjective norms significantly influence consumers' attitudes toward eco-friendly products.

Perceived Behavioral Control

Perceived behavioral control (abbreviated as PBC in this research), as described in the TPB framework and supported by previous studies, influences consumer attitudes and purchasing decisions. Nevertheless, consumer purchasing choices are more directly associated with their attitudes and intentions. In light of this, the following hypothesis is proposed:

H5: Perceived behavioral control significantly impacts consumers' perceptions of eco-friendly products.

Attitudes Toward Green Products

Attitudes toward eco-friendly products (referred to as ATP in this research), as articulated in the TPB framework, shape both purchase intentions and subsequent consumer behavior. However, a variety of studies have shown that factors such as risk perception, perceived consumer effectiveness, subjective norms, and perceived behavioral control are closely linked to consumer attitudes. Consequently, the following hypotheses are proposed:

H6: Attitudes toward eco-friendly products significantly influence purchase intentions.

H7: Attitudes toward eco-friendly products significantly impact purchasing behavior.

H8: Attitudes toward eco-friendly products mediate the link between COVID-19 risk perception and purchase intentions.

Green Purchase Intentions

Green purchase intentions (abbreviated as GPI in this research), as outlined in the TPB framework, are positively influenced by factors such as risk perception, subjective norms, and perceived behavioral control. In addition, purchase intentions have a substantial impact on actual consumer behavior. With these factors in mind, the following hypotheses are proposed:

H9: Green purchase intentions significantly influence eco-friendly purchasing behavior.

H10: Green purchase intentions mediate the connection between attitudes toward eco-friendly products and purchasing decisions.

The conceptual model is presented in Figure 1.

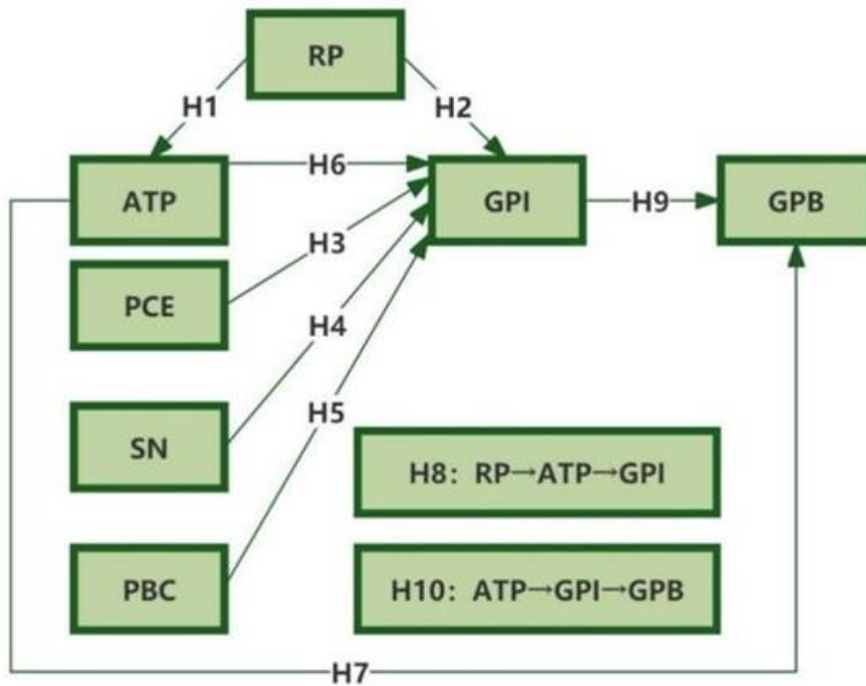


Fig. 1 Research Model

DATA ANALYSIS AND HYPOTHESIS TESTING

Descriptive Statistical Analysis

A total of 310 survey samples were collected. Among them, 179 were male participants, accounting for 57.7% of the total, while 131 were female participants, accounting for 42.3%.

Regarding age, 29 participants were under 18 years old, accounting for 9.4% of the total. The age group of 18-25 years had the largest share, with 90 participants (29%). Participants aged 26-35 years numbered 56, making up 18.1%. Together, individuals aged 18-35 accounted for 47.1%, indicating that the majority of participants were under 36 years old. Those aged 36-45 accounted for 39 participants (12.6%), and those over 55 had the smallest share with 17 participants (5.5%).

In terms of education level, participants with junior high school or lower education numbered 14, the smallest share at 4.5%. Those with high school or vocational school education accounted for 86 participants (27.7%). Participants with university-level education (undergraduate or associate degree) comprised the majority at 172 (55.5%), while those with a master's degree or higher numbered 38 (12.3%).

The average monthly income of participants is measured in Chinese Yuan (CNY). Those earning less than 4,000 yuan numbered 103 (33.2%). Participants earning 4,000-8,000 yuan were the largest group at 131 (42.3%). Participants earning 8,000-12,000 yuan numbered 48 (15.5%), while those earning 12,000-16,000 yuan totaled 15 (4.8%). Participants earning above 16,000 yuan were the smallest group, with 13 (4.2%).

Correlation Analysis

Correlation analysis is a method employed to examine the relationships between different variables. This section examines the interrelationships among COVID-19 risk perception, perceived consumer effectiveness,

subjective norms, perceived behavioral control, attitudes toward eco-friendly products, purchase intentions, and purchasing behavior. A Pearson correlation analysis was conducted, using two-tailed significance tests to assess the relationships between variables. Pearson’s correlation coefficient ranges from -1 to 1, where values closer to 1 indicate a strong positive relationship, values near 0 suggest a weak connection, and values approaching -1 imply a strong negative relationship. The complete results of this analysis are provided in Table 1.

Table 1: Correlation Analysis Between Variables

Variable	RP	PCE	SN	ATP	PBC	GPI	GPB
RP							
PCE	.196**						
SN	.190**	.650**					
ATP	.158**	.534**	.706**				
PBC	.193**	.535**	.510**	.612**			
GPI	.188**	.593**	.670**	.679**	.670**		
GPB	.163**	.578**	.637**	.651**	.607**	.806**	

Regression Analysis

The correlation analysis results reveal varying degrees of significant positive relationships between COVID-19 risk perception, perceived consumer effectiveness, subjective norms, perceived behavioral control, consumer attitudes toward eco-friendly products, green purchase intentions, and actual purchasing behavior. Regression analysis serves as an effective method to validate the relationships among variables, their strength, direction, and for hypothesis testing and model refinement. For this purpose, linear regression analysis in SPSS 27 is employed to explore these variables.

Regression Analysis of Factors Influencing Green Purchase Intention

Impact of COVID-19 Risk Perception: The analysis reveals an R-squared value of 0.035, suggesting that the regression model exhibits a moderate level of fit. The constant term (B) is approximately 3.08, with a t-value of about 13.09 and a significance level of less than 0.01. The B value for RP is approximately 0.23, with a t-value of about 3.36 and a significance level of less than 0.01, demonstrating that the linear relationship is statistically significant. Since all B values are positive, RP exerts a significant positive influence on GPI. This suggests that an increase in COVID-19 risk perception results in a higher intention to purchase green products, thus supporting hypothesis H2.

The constant term (B) of 1.447 is statistically significant, with a t-value of 7.587 ($p < 0.01$). The B value for PCE is 0.633, with a t-statistic of 12.923 and a significance level below 0.01, indicating that the linear relationship is statistically significant. Since all B values are positive, PCE exerts a significant positive influence on GPI, suggesting that an increase in perceived consumer effectiveness boosts green purchase intentions, thus supporting hypothesis H3.

Impact of Subjective Norms: The analysis shows an R-squared value of 0.449, reflecting a strong model fit. The constant term (B) is 0.78 with a t-statistic of 6.021, both statistically significant at $p < 0.01$. The coefficient for SN (B) is 0.694, with a t-statistic of 15.851, also significant at $p < 0.01$. These results indicate a strong linear relationship between the variables. With positive coefficients, it suggests that an increase in subjective norms leads to higher green purchase intentions, thus supporting hypothesis H4.

Impact of Perceived Behavioral Control: The analysis reveals an R-squared value of 0.449, indicating a strong model fit. The constant term (B) is 1.797 with a t-statistic of 13.286, significant at $p < 0.01$. The coefficient for PBC (B) is 0.583, with a t-statistic of 15.836, also significant at $p < 0.01$. This implies a

significant positive relationship between the variables. As the coefficients are positive, it shows that an increase in perceived behavioral control positively influences green purchase intentions, supporting hypothesis H5.

Impact of Attitude Toward Green Products: The R-squared value is 0.461, suggesting a good model fit. The constant term (B) is 1.429 with a t-statistic of 9.286, statistically significant at $p < 0.01$. The coefficient for ATP (B) is 0.639, with a t-statistic of 16.233, also significant at $p < 0.01$. This indicates a significant positive relationship between the variables. A more favorable attitude toward green products leads to increased green purchase intentions, thus supporting hypothesis H6.

Regression Analysis of Factors Influencing Green Purchase Behavior

This analysis examines the impact of various factors on green purchasing behavior, with consumer attitudes and purchase intentions as key predictors.

Impact of Consumers' Attitudes Toward Green Products: With an R^2 value of 0.423, the model demonstrates a strong fit. The constant term shows a B value of 1.638 and a t-statistic of 10.611, both significant at $p < 0.01$. The B value for ATP is 0.594, with a t-statistic of 15.033, also significant at $p < 0.01$. These results confirm a statistically significant linear relationship. The positive coefficients indicate that improved consumer attitudes toward green products enhance green purchase behavior, supporting hypothesis H7.

Impact of Green Purchase Intention: The R^2 value of 0.65 indicates excellent model performance. The constant term has a B value of 0.877 and a t-statistic of 6.789, both statistically significant at $p < 0.01$. For GPI, the B value is approximately 0.782, with a t-statistic of 23.936, also significant at $p < 0.01$. These findings suggest a robust positive linear relationship. Higher green purchase intentions are strongly associated with increased green purchase behavior, thereby validating hypothesis H9.

Regression Analysis of Factors Influencing Consumers' Attitudes Toward Green Products

This section conducts a regression analysis to investigate the relationship between COVID-19 risk perception (independent variable) and consumers' attitudes toward green products (dependent variable).

Impact on Consumers' Attitudes Toward Green Products: With an R^2 value of 0.025, the model demonstrates a limited fit. The constant term has a B coefficient of 3.104 and a t-statistic of 12.34, both statistically significant at $p < 0.01$. The coefficient for RP is 0.202, with a t-statistic of 2.814, also significant at $p < 0.01$. These findings confirm a valid linear relationship. The positive coefficients indicate that higher perceptions of COVID-19 risk enhance favorable consumer attitudes toward green products, supporting hypothesis H1.

Mediating Effect Test

1. Examination of the Mediating Role of Green Purchase Intention

As shown in Table 2, when consumers' attitudes toward green products are considered independently, the regression coefficient is 0.679, with a t-statistic of 0.0393, significant at $p < 0.01$, and an R^2 of 0.4611. This indicates that consumers' attitudes account for 46.11% of the variation in the outcome.

When both consumers' attitudes and green purchase intention are used to predict green purchase behavior, the standardized regression coefficient for attitudes is 0.1743, with a t-value of 4.2776, significant at $p < 0.01$, and an R^2 of 0.67. The coefficient for green purchase intention is 0.6563, with a t-value of 15.1538, also significant at $p < 0.01$.

The direct effect of attitudes on green purchase behavior is 0.1743, while the mediating effect of green purchase intention is 0.4192. The absence of zero in the Bootstrapped confidence interval confirms the presence of a partial mediation effect between these variables, supporting hypothesis H10.

Table 2 Results of the Mediating Effect Test for Green Purchase Intention

Outcome Variable:						
GPI						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.6790	0.4611	0.4262	263.4973	1.0000	308.0000	0.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant Term	1.4229	0.1539	9.2860	0.0000	1.1263	1.7320
ATP	0.6387	0.0393	16.2326	0.0000	0.5613	0.7162
Outcome Variable						
GPB						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.8186	0.6700	0.2463	311.6946	2.0000	307.0000	0.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant Term	0.7005	0.1323	5.2929	0.0000	0.4401	0.9609
ATP	0.1743	0.0407	4.2776	0.0000	0.0941	0.2544
GPI	0.6563	0.0433	15.1538	0.0000	0.5711	0.7416
The Direct Effect of X on Y:						
Effect	se	t	p	LLCI	ULCI	
0.1743	0.0407	4.2776	0.0000	0.0941	0.2544	
The Indirect Effect of X on Y:						
	Effect	BootSE	BootLLCI	BootULCI		
GPI	0.4192	0.0434	0.3360	0.5077		

2. Testing the Mediating Role of Consumers' Attitudes Toward Green Products

Table 3 illustrates the mediating role of consumers' attitudes toward green products, acting between COVID-19 risk perception (independent variable) and green purchase intention (dependent variable).

When COVID-19 risk perception is analyzed independently, its regression coefficient is 0.2024, with a t-statistic of 12.3395, significant at $p < 0.01$.

When both consumers' attitudes and COVID-19 risk perception are included as predictors, the standardized regression coefficient for consumers' attitudes is 0.6265, with a t-value of 15.7917, significant at $p < 0.01$, and an R^2 value of 0.251.

The standardized coefficient for COVID-19 risk perception is 0.099, with a t-statistic of 1.9532 and a p-value of 0.0517, exceeding the threshold of 0.05.

This result suggests no direct relationship between COVID-19 risk perception and green purchase intention. However, the mediating effect value for consumers' attitudes is 0.1268. As the Bootstrapped confidence interval excludes zero, this confirms a full mediation effect, supporting hypothesis H8.

Table 3. Results of the Mediating Effect Test of Consumers' Attitudes Toward Green Products

Outcome Variable:						
ATP						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.1583	0.0251	0.8714	7.9183	1.0000	308.0000	0.0052
Model						
	coeff	se	t	p	LLCI	ULCI
Constant Term	3.1040	0.2516	12.3395	0.0000	2.6090	3.5990
RP	0.2024	0.0719	2.8139	0.0052	0.0609	0.3439
Outcome Variable:						
GPI						
Model Summary						
R	R-sq	MSE	F	df1	df2	p
0.6839	0.4677	0.4224	134.8603	2.0000	307.0000	0.0000
Model						
	coeff	se	t	p	LLCI	ULCI
Constant Term	1.1370	0.2141	5.3109	0.0000	0.7158	1.5583
RP	0.0990	0.0507	1.9532	0.0517	-0.0007	0.1988
ATP	0.6265	0.0397	15.7917	0.0000	0.5484	0.7045
The Direct Effect of X on Y:						
Effect	se	t	p	LLCI	ULCI	
0.0990	0.0507	1.9532	0.0517	-0.0007	0.1988	
The Indirect Effect of X on Y:						
	Effect	BootSE	BootLLCI	BootULCI		
ATP	0.1268	0.0557	0.0194	0.2404		

RESEARCH CONCLUSIONS AND FUTURE DIRECTIONS

Summary of Findings

This paper investigates how the COVID-19 pandemic has shaped green purchase behavior in the post-pandemic context. The analysis reveals that COVID-19 risk perception exerts a notable positive impact on consumers' attitudes toward green products and their purchase intention. These findings suggest that the prolonged pandemic has heightened awareness of environmental issues, encouraging favorable attitudes toward green products and increased intention to purchase them.

Additionally, the study identifies consumers' attitudes toward green products as a mediating factor between COVID-19 risk perception and green purchase intention. This mediation indicates that higher COVID-19 risk perception indirectly influences green purchase intention through shaping consumer attitudes toward green products. However, the direct link between COVID-19 risk perception and green purchase intention is not significant, highlighting that perception alone does not drive green purchase behavior.

Consumers' attitudes toward green products significantly contribute to enhancing green purchase intention, a result consistent with Chan and Lau (2002) as well as Bai Guanglin and Wan Chenyang (2012). The study

further identifies that consumers' attitudes toward green products positively affect green purchase behavior, either directly or through indirect pathways.

Moreover, perceived utility, subjective norms, and perceived behavioral control are found to positively influence green purchase intention both directly and indirectly. These outcomes align with prior research on green purchase behavior, underscoring their consistency with established findings. The analysis also highlights a marked rise in public awareness of environmental protection following the pandemic, fostering a greater tendency toward green purchase behavior.

Managerial Implications

1. Managerial Implications for Enterprises

Enhancing the promotion of green products through tailored marketing strategies can effectively boost consumer awareness. Integrating environmental protection and sustainable consumption concepts into public consciousness is essential to fostering long-term behavioral change. This, in turn, can improve consumers' attitudes and intentions toward green products, ultimately increasing their purchase behavior. Different promotional approaches should target distinct consumer groups, using diverse content and methods to attract potential buyers.

Ensure Product Quality, Enrich Functionality, and Reduce Costs: Product quality and price are top priorities for consumers. Thus, improving product quality and adopting advanced green production technologies to lower costs should be key focuses for enterprises. First, businesses must ensure the quality and functionality of green products, meeting regional and international standards to enhance consumer trust and foster stronger relationships. Research indicates that green product consumers are often highly educated and high-income individuals, so product designs should emphasize functional value to meet their needs while promoting environmental protection during use. Second, consumers often associate green products with high prices, which hinders broader acceptance. Therefore, enterprises should focus on maintaining quality and functionality while considering price-sensitive consumers to attract potential buyers. Enhancing cost-effectiveness can encourage wider adoption of green products.

2. Managerial Implications for Government

Promote Green Consumption Concepts and Improve Standards and Regulations: Governments should intensify efforts to popularize the concepts of green and low-carbon living, integrating them into all levels of the education system. Diverse promotional strategies, such as using platforms like WeChat, TikTok, Xiaohongshu, and Taobao, can subtly influence consumer behavior and lifestyle choices. Furthermore, governments should establish and refine production standards for green products, enforce strict certifications, and promote the development of related industries such as green manufacturing and logistics. Strengthening laws and regulations will enhance the supervision of green products, facilitating the orderly and prosperous growth of the green industry.

Implement Measures to Encourage Consumers and Enterprises: Governments can use subsidies such as consumer vouchers to increase the appeal of green products, reducing the impact of high prices on consumer decisions and promoting sales. For enterprises, tax reductions and other supportive measures can incentivize green transformation and upgrades, boosting the production, promotion, and adoption of green products.

Research Limitations and Future

The scope of the sample utilized in this study is somewhat constrained. Consumer behavior is influenced by factors such as regional differences, cultural backgrounds, and levels of economic development, which may have varying impacts on the findings. The majority of the sample for this study was drawn from mainland China and the Macau Special Administrative Region, which does not fully represent a broader range of

consumers. As a result, the study cannot provide universally applicable conclusions. Additionally, the overall sample size is relatively small. Future studies can expand the scope to include more diverse or localized regions, increase the sample size, and focus on variations across different groups. This would enhance the scientific rigor and generalizability of the research conclusions.

Moreover, this study did not address the "attitude-behavior gap," which could be an important aspect to investigate in future research. Additional exploration into this discrepancy could provide deeper insights. Finally, this study primarily focused on dimensions such as COVID-19 risk perception, perceived consumer utility, and subjective norms. Other dimensions that might influence green purchase intentions, behaviors, and attitudes toward green products were not included. Future research can incorporate these additional dimensions to enrich the understanding of green consumer behavior.

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APPENDIX: CONSTRUCT AND ITEM

Dear Sir/Madam, Greetings! You are cordially invited to participate in this survey, which serves as part of a master's thesis research project at the X. The purpose of this survey is to understand your green purchasing behavior in the context of the post-pandemic era. We kindly ask you to complete the questionnaire with due care. Your responses are of great importance to us. Please be assured that all the information you provide will remain strictly confidential and will only be used for academic research purposes. Thank you for your support!	
Construct and item	Source
COVID-19 Risk Perception	
RP1: I am highly likely to be infected with the novel coronavirus.	Dai, et al., 2020.
RP2: The current COVID-19 pandemic is highly transmissible.	
RP3: If I am in the same space as a COVID-19 positive patient, I will be infected.	
RP4: I feel that the COVID-19 situation in my area is severe.	
RP5: The current COVID-19 pandemic is likely to lead to fatalities.	
RP6: Being infected with COVID-19 will have a serious impact on my health.	
RP7: The current COVID-19 pandemic will last for a long time.	
RP8: There may be long-term consequences after recovering from COVID-19.	
RP9: The outbreak of COVID-19 will immediately have a negative impact on society.	
RP10: I believe that the COVID-19 pandemic has a wide-reaching impact.	
RP11: I believe that the current COVID-19 pandemic is more severe than previous pandemics.	
RP12: I believe that the current COVID-19 pandemic is more contagious than previous pandemics.	
RP13: I believe that COVID-19 is a newly emerging disease.	
RP14: I believe that COVID-19 is difficult to treat.	
RP15: I believe that the spread and transmission of COVID-19 is difficult to control.	

Perceived Consumer Effectiveness	
PCE1 I believe that I have the ability to help improve environmental issues to a certain extent.	Kim and Choi, 2005
PCE2 I can protect the environment by purchasing green and environmentally friendly products.	
PCE3 I think I can help solve the world's natural resource shortage problem by conserving water and energy.	
Subjective Norms	
SN1 Those important to me (family/friends/neighbors/colleagues) support my purchase of green products.	Li, et al.,2021.
SN2 Those important to me (family/friends/neighbors/colleagues) express approval of my purchase of green products.	
SN3 Those important to me (family/friends/neighbors/colleagues) express praise of my purchase of green products.	
SN4 If the majority of those around me (family/friends/neighbors/colleagues) believe that purchasing green products is necessary, then I am more willing to buy them.	
SN5 If the majority of those around me (family/friends/neighbors/colleagues) invite me to buy green products, then I am more willing to participate.	
SN6 If my social circle often shares their experiences with green products, then I am more willing to participate.	
Attitude Toward Products	
ATP1 I believe that buying green products gives me a unique feeling.	Li, et al.,2021.
ATP2 I believe that buying green products makes me feel good.	
ATP3 I believe that buying green products gives me great satisfaction.	
ATP4 I believe that buying green products helps me relieve stress.	
Perceived Behavior Control	
PBC1: I have sufficient income to support my purchase of green products.	Li, et al.,2021.
PBC2: I know how to purchase green products.	
PBC3: I have the hardware/software facilities to support my purchase of green products.	
Green Purchase Intuition	
GPI1: Due to ecological reasons, I would consider replacing the brand of the product I purchase.	Chan and Lau, 2000.
GPI2: I would consider purchasing products with less pollution.	
GPI3: I plan to switch to green products.	
Green Purchase Behavior	
GPB1: When I want to buy a product, I will check the ingredient label to see if it contains anything harmful to the environment.	Leer, 2008.
GPB2: When the quality of the product is comparable, I prefer green products over non-green products.	
GPB3: Even if green products are more expensive than non-green products, I will still buy them.	