

Research on the Impact of Environmental Responsibility on Consumers' Green Purchase Intention

Chang Luo

School of Business, Central South University of Forestry and Technology, Hunan, 410000, China

Abstract: Based on the theory of planned behavior, construct a basic theoretical model of the impact of environmental responsibility on green purchase intention, this paper analyzes in detail how environmental responsibility acts on consumers' willingness to buy green, and discusses the path and situational factors. These studies not only help us to understand consumers' green consumption behavior more comprehensively, but also provide important theoretical support and practical guidance for promoting green transformation. The conclusions are as follows: (1) environmental responsibility can positively affect consumers' green purchase intention, and (2) green perceived value has a mediating role between environmental responsibility and green purchase intention.

Keywords: Environmental responsibility; Green perceived value; green purchase intention.

1. Introduction

In recent years, due to the increasing shortage of resources, more and more environmental pollution, and the degraded ecosystem, the government has attached great importance to environmental problems. The irrational consumption patterns of human beings are the cause of 40% of environmental problems[1]. At the same time, under the severe ecological environment situation, the concept of conservation has been deeply rooted in the hearts of the people with the high-quality development of the country, green consumption and other fields, and is accelerating the green transformation of green production methods, green values and green lifestyles.

The construction of ecological civilization is an important goal of sustainable development in today's society, and green consumption is an important way and inevitable choice to achieve this goal, and the construction of ecological civilization drives green consumption. In order to promote green consumption, it is necessary to increase consumers' willingness to buy green. This willingness is influenced by a number of factors, one of which is environmental responsibility. Its enhancement can actively promote consumers' green purchase intentions, thereby guiding consumers to choose greener consumption behaviors. However, consumers generally have a strong sense of environmental responsibility, and their willingness to buy green and their ability to practice green are poor.

At present, environmental responsibility is mainly recognized and applied in the field of environment, and less in the field of marketing management. By studying the relationship between environmental responsibility and consumers' green purchase intention, it is one of the important topics to promote green purchase intention by in-depth theoretical discussion and empirical analysis of how environmental responsibility can promote consumers' green purchase willingness and promote ecological sustainable development.

2. Data Processing and Research Design

2.1. Data processing

In formal surveys, we collect data primarily through the online platform SurveyStar. In order to expand the scope of the survey, we made full use of social platforms such as WeChat, QQ, and Weibo to widely share the link to the official questionnaire to multiple groups and individuals. At the same time, we also commissioned friends and relatives to retweet and spread the questionnaire to increase the coverage and participation of the questionnaire. In order to motivate the respondents to actively participate, we have also set up a reward mechanism for scanning the QR code offline to fill out the questionnaire. According to statistics, a total of 330 questionnaires were distributed this time, and after screening and eliminating invalid questionnaires, a total of 320 valid questionnaires were recovered, and the effective rate of the questionnaire was as high as 97.0%. In addition, the number of valid questionnaires also exceeded 10 times the number of items on the scale, which fully met the requirements of empirical analysis. This survey has achieved good results in questionnaire design, data collection and processing, which provides solid support for subsequent data analysis and research.

2.2. Research design

2.2.1. Research hypothesis

Based on the theory of planned behavior, there is a significant positive correlation between an individual's sense of environmental responsibility and their willingness to buy green. Individuals with a high degree of environmental responsibility are more likely to take positive actions towards the environment[2]. Environmental responsibility reflects the sense of obligation and effort shown by individuals in the face of environmental problems, and provides a powerful explanation for understanding consumers' green purchase intentions and behaviors. Individuals often need to spend time, money and other costs to solve environmental problems,

which can lead to conflicts between the interests of individuals and society. In this context, the internalized sense of environmental responsibility will be stimulated, prompting the individual to have a willingness to buy green. With the increasing attention to environmental protection issues, consumers' attention to social responsibility is also increasing, which indicates the inevitable trend of green transformation, which further promotes the generation of green purchase intentions.

Environmental cognition is the embodiment of an individual's cognition and understanding of the surrounding environment, and this process has undergone a development from scratch and from shallow to deep. Environmental perception has a significant impact on individuals' green purchase intention. The richer the individual's environmental knowledge, the stronger their environmental literacy and environmental awareness, which in turn stimulates their willingness to participate more actively in environmental protection, thereby enhancing their willingness to buy green[3].

Environmental behavior attitude is the positive or negative evaluation of consumers' willingness and behavior to implement green purchases. In the theory of planned behavior, environmental behavior attitude is regarded as an effective variable for predicting behavioral intention, which can explain and predict behavioral intention. In general, the more positive an individual's attitude towards environmental behavior is, the stronger their willingness to buy green. Zheng Shiyi (2004) empirically demonstrated the influence of environmental sensitivity on environmental behavior, which was achieved through environmental behavior attitudes as a mediating variable [4]. In addition, the study also confirmed the existence and effectiveness of the pathway "environmental sensitivity-green consumption attitude-green consumption intention".

Environmental emotion is an individual's attitude or psychological response to environmental problems or behaviors based on their own needs. Environmental emotions promote individuals' willingness and behavior to purchase green by influencing the intensity, direction, and persistence of their motivation. Emotions play a more direct role in driving human behavior than cognition [5]. Therefore, the stronger consumers' environmental sentiments, the more likely they are to implement green purchasing intentions. Based on this, the following hypotheses are proposed:

H1a: Environmental perception can significantly and positively affect green purchase intention.

H1b: Environmental behaviour attitudes can significantly positively affect green purchase intentions.

H1c: Environmental sentiment can significantly and positively affect green purchase intentions.

Sheng Guanghua (2018) discussed the impact of environmental responsibility on the purchase intention of

green products, and confirmed the mediating role of green perceived value with green perceived value as the mediating variable and external incentive policies as the moderating variable[7]. Subsequently, Zu Ming et al. (2019) further explored the mediating role of green perceived value between consumers' environmental value orientation and green purchase intention, and the results showed that altruistic values had a significant positive impact on green perceived value, thereby increasing consumers' purchase intention[8]. Liu Zengzeng (2020) took the purchase intention of energy-saving household appliances as the starting point, and conducted a detailed discussion on the internal relationship between environmental sensitivity and green consumption intention. The results show that green perceived value plays a significant mediating role between environmental sensitivity and green purchase intention. Together, these studies reveal the centrality of green perceived value in consumers' purchasing decisions[9]. In Xiang Jing (2023), the degree of green involvement was used as a moderating variable to verify the complete path from green advertising appeal to green perceived value to green purchase intention [10]. Based on this, the following hypotheses are proposed:

H2a: Green value mediates the relationship between environmental perception and green purchase intention.

H2b: Green value mediates the relationship between environmental behavior attitude and green purchase intention.

H2c: Green value mediates the relationship between environmental sentiment and green purchase intention.

H2d: Affective value mediates the relationship between environmental perception and green purchase intention.

H2e: Affective value mediates the relationship between environmental behavior attitudes and green purchase intentions.

H2f: Affective value mediates the relationship between environmental sentiment and green purchase intention.

2.2.2. Theoretical model

This paper expands the research in the field of environmental responsibility and green purchase intention, and attempts to uncover the "dark box" of the mechanism between environmental responsibility and purchase intention by constructing an intermediary variable, green perceived value. This study argues that the degree of involvement plays a moderating role in the relationship between environmental responsibility and green perceived value, and the relationship between environmental responsibility and purchase intention is mediated by green perceived value, which means that the degree of involvement will affect the value of consumers' perception of green products, and at the same time, strengthening the green perceived value can enhance the relationship between purchase intention and environmental responsibility on purchase intention. The specific model in this document is shown in Figure 1.

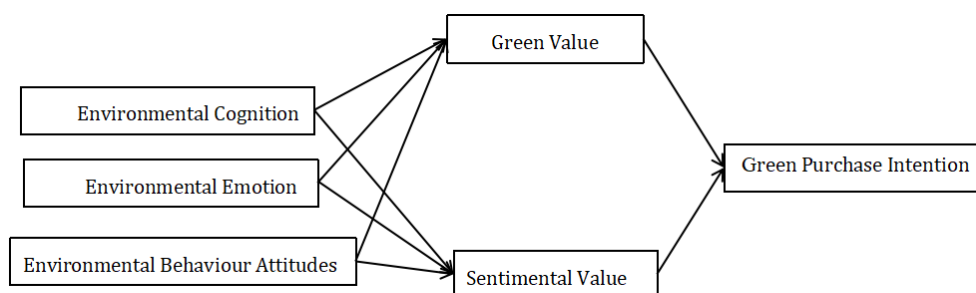


Figure 1. Theoretical model

3. Results of Empirical Analysis

3.1. Regression analysis

In this paper, AMOS26.0 is used to calculate the parameters of the structural equation and observe whether the p-value reaches the significance level to test the hypothetical relationship between environmental cognition, environmental behavior attitude, environmental emotion, green value and emotional value, and green purchase intention, as shown in Table 1 above.

Environmental responsibility has a positive impact on green purchase intentions. The standardization coefficient of

environmental perception on green purchase intention was 0.163 and $P < 0.05$, indicating that environmental perception had a significant promotion effect on green purchase intention, assuming that H1a was verified, the standardization coefficient of environmental behavior attitude on green purchase intention was 0.196 and $P < 0.05$, indicating that environmental behavior attitude had a significant promotion effect on green purchase intention, assuming that H1b was verified, and the standardization coefficient of environmental sentiment on green purchase intention was 0.2 and $P < 0.05$, indicating that environmental sentiment had a significant promotion effect on green purchase intention, assuming that H1c was verified.

Table 1. Path Factors for Structural Equation Model (N=320)

Path Relationship	Non-Normalized Factor	Normalized Factor	P	The assumption is true
Green Purchase Intentions < - Environmental Cognition	0.139	0.163	0.002	support
Green Purchase Intentions < - Environmental Behavior Attitudes	0.185	0.196	***	support
Green Purchase Intentions < - Environmental Sentiment	0.177	0.2	***	support

3.2. Test of the mediating effect of green perceived value

In this paper, we use the bootstrap method to examine the mediation effect. Specifically, we refer to Model 4 in the SPSS macro compiled by Hayes (2012) and set the number of bootstrap samples to 5000. At a 95% confidence level, we

rigorously tested the mediating effects discussed in this paper. If the resulting confidence interval does not contain 0, it means that there is a significant indirect effect. The application of this method not only enhances the rigor of the research, but also provides us with a more reliable basis for conclusions [114]. The results of the mediating effect of green perceived value in this paper are shown in Table 2.

Table 2. Results of the mediating effect test of green trust (N=320)

Path	Coefficient	BootSE	BootLL CI	BootUL CI
Environmental Cognition—Green Value—Green Purchase Intention	0.132	0.028	0.079	0.187
Environmental Behaviour Attitudes—Green Value—Green Purchase Intention	0.147	0.030	0.093	0.210
Environmental Sentiment—Green Value—Green Purchase Intention	0.165	0.034	0.103	0.238
Environmental Cognition—Emotional Value—Green Purchase Intention	0.155	0.029	0.103	0.216
Environmental Behavior Attitude—Emotional Value—Green Purchase Intention	0.134	0.03	0.082	0.197
Environmental Emotion—Emotional Value—Green Purchase Intention	0.154	0.033	0.096	0.225

From Table 2, at the 95% confidence level, (1) the indirect effect of green value on environmental perception and green purchase intention is estimated to be 0.132, and the confidence interval [0.079, 0.187] does not include 0, indicating that there is an indirect effect, so assuming that H4a is true, green value has a mediating effect on the relationship between environmental perception and green purchase intention; (2) The estimated indirect effect of green value on environmental behavior attitude and green purchase intention is 0.147, and the confidence interval is [0.093, 0.210], which does not include 0, indicating that there is an indirect effect, so assuming that H4b is true, green value has a mediating

effect on the relationship between environmental behavior attitude and green purchase intention. (3) The indirect effect of green value on environmental sentiment and green purchase intention is estimated to be 0.165, and the confidence interval is [0.103, 0.238] and 0 is not included, indicating that there is an indirect effect, so assuming that H4c is true, green value has a mediating effect on the relationship between environmental sentiment and green purchase intention. (4) The estimated indirect effect of affective value on environmental cognition and green purchase intention was 0.155, and the confidence interval was [0.103, 0.216] without including 0, indicating that there was an indirect effect, so

assuming that H4d was true, affective value had a mediating effect on the relationship between environmental cognition and green purchase intention;(5) The indirect effect of affective value on environmental behavior attitude and green purchase intention was estimated to be 0.134, and the confidence interval was [0.082, 0.197] without including 0. It is hypothesized that H4e is true, and affective value has a mediating effect on the relationship between environmental behavior attitude and green purchase intention. (6) The indirect effect of affective value on environmental affective sentiment and green purchase intention is estimated to be 0.154, and the confidence interval is [0.096, 0.225] without including 0, indicating that there is an indirect effect, so assuming that H4f is true, affective value has a mediating effect on the relationship between environmental affective and green purchase intention.

4. Conclusions and Recommendations

4.1. Conclusion

4.1.1. Environmental responsibility can positively affect consumers' willingness to buy green

This paper delves into the impact of environmental responsibility on green purchase intentions. Through empirical analysis, we verify the positive effects of environmental cognition, environmental behavior attitude, and environmental sentiment on consumers' green purchase intention. Specifically, environmental cognition, as consumers' understanding and depth of cognition of environmental issues, has a significant impact on their green purchase intention. The increase in environmental awareness helps consumers realize the value and importance of green products, thereby motivating them to buy green products. Second, environmental behavior attitudes reflect consumers' acceptance of green products and their willingness to buy. This attitude is influenced by a variety of factors, such as consumers' involvement in green products, the importance of environmental protection, and personal values. In addition, environmental emotion, as the emotional connection and concern of consumers for the environment, has an impact on green purchase intentions. Consumers' empathy and concern for the environment can stimulate their intrinsic motivation to buy green products and motivate them to actively participate in environmental protection actions. In summary, the impact of environmental responsibility on green purchase intention is a complex and multi-dimensional process. In this process, multiple factors such as environmental cognition, environmental behavior attitude, and environmental emotion interact with each other to jointly promote consumers' green purchase intention.

4.1.2. Green perceived value has a mediating role between environmental responsibility and green purchase intention

This study explores the correlation between environmental responsibility and green perceived value, environmental responsibility and green purchase intention, and green perceived value and green purchase intention. On the basis of the original model, we introduce the variable of green perceived value, aiming to reveal its mediating role between environmental responsibility and green purchase intention. By collecting a large number of sample data and using statistical software for data analysis, we found that the fitting degree of the model was significantly improved, indicating that the green perceived value did play an important

mediating role in the model. As the two dimensions of green perceived value, emotional value and green value, both have a positive impact on green purchase intention. Affective value reflects consumers' emotional inclination towards environmentally friendly products and services, and when consumers have a positive emotional connection to environmentally friendly products and services, they are more inclined to make green purchases. Green value, on the other hand, involves consumers' perception of the quality and reliability of environmentally friendly products and services, and when consumers believe that these products and services can meet their needs, their willingness to buy will also increase accordingly. It is worth noting that the confidence interval between environmental responsibility and green purchase intention does not include 0, which means that there is a significant correlation between the two, and green perceived value plays a partial mediating role in this relationship. The influence of environmental responsibility on green purchase intention has a dual path: on the one hand, it directly affects green purchase intention, and on the other hand, through the intermediary variable of green perceived value, environmental responsibility indirectly affects green purchase intention. This discovery provides a new perspective and enlightenment for us to deeply understand the complex relationship between environmental responsibility, green perceived value and green purchase intention.

4.2. Recommendations

In order to more effectively promote the concept of green consumption and increase consumers' willingness to buy green, the government, enterprises and society should formulate corresponding policies and measures for these influencing factors.

First, the government plays a crucial role in promoting green consumption. By formulating and improving relevant laws and regulations, the government can provide a solid institutional guarantee for green consumption. For example, measures such as giving tax incentives to green products and imposing environmental taxes on non-green products can effectively guide consumers to choose more environmentally friendly products. In addition, the government can also encourage enterprises to develop more green products and technologies to meet the green needs of consumers through financial support and technology research and development.

Second, companies also play a key role in promoting green consumption. In order to stand out in the fierce market competition, companies should not only focus on technology and product innovation, but also improve consumers' environmental awareness, behavioral attitudes and emotional tendencies. Enterprises should actively assume environmental responsibility, and provide consumers with more high-quality, environmentally friendly and reliable green products through technological innovation and product upgrading. At the same time, enterprises can also improve consumers' cognition, behavioral attitudes and environmental emotions of green products through advertising, product packaging, etc., and convey the environmental protection concept and use value of green products to consumers, so as to stimulate consumers' willingness to buy. In addition, enterprises should also strengthen cooperation with the government and actively respond to the government's green consumption policy. Enhance the sense of social responsibility and public image of enterprises by participating in green certification and environmental protection public

welfare activities.

In addition to governments and enterprises, all sectors of society also play an indispensable role in promoting green consumption. In order to enhance consumers' emotional connection and sense of responsibility for the environment, the media, schools, communities, etc. can all become important channels to spread environmental responsibility. The media can raise the public's attention and awareness of environmental issues by reporting on environmental issues and green lifestyles; schools can cultivate students' environmental awareness and green consumption habits through curriculum and practical activities; communities can guide residents to participate in environmental protection practices and jointly create an atmosphere of green life by organizing environmental protection activities and volunteer services. For example, organize consumers to participate in activities such as garbage sorting, afforestation, and environmental protection volunteer services, so that they can feel the importance of environmental protection, so as to cherish and protect the environment more. These practical activities can not only improve consumers' environmental awareness and environmental feelings, but also cultivate their environmental behavior attitudes and contribute to the improvement of environmental conditions.

To sum up, improving green consumption requires the joint efforts of the government, enterprises and all sectors of society. Through the implementation of multi-dimensional strategies such as raising consumers' environmental awareness, cultivating positive environmental behavior attitudes and environmental emotions, advocating green lifestyles and carrying out environmental protection practice activities, we can deeply implant environmental crisis awareness in the hearts of consumers and jointly contribute to the construction of a beautiful home. This is not only a manifestation of responsibility for ourselves and future generations, but also a cherishing and protection of the common home of mankind.

References

- [1] Grunert S C. Everybody seems concerned about the environment: But is this concern reflected in(Danish)consumers' food choice?[J].European Advances in Consumer Research,1993,48(3):367-390.
- [2] Tao Jingyi. The impact of consumers' environmental responsibility and negative value perception on green customization willingness[D]. Harbin Institute of Technology, 2021.
- [3] Liu Libo. From symbiosis, restriction to win-win [D]. Changchun: Jilin University, 2016.
- [4] Zheng Shiyi: A Comparison of the Factors Influencing Three Environmental Behavior Intentions of Environmental Group Members [D], Sun Yat-sen University, Taiwan, 2004.
- [5] Wang Jianming, Wu Longchang. The impact of multi-dimensional green purchase emotion on green purchase behavior. [J]. Urban Issues,2015(10):94-103.
- [6] Kanchanapibul M, Lacka E, Wang X J et al.An empirical investigation of green purchase behaviour among the young generation [J].Journal of Cleaner Production2014 (66):528—536.
- [7] Sheng Guanghua, Ge Wanda, Tang Li. The impact of consumers' environmental responsibility on green product purchase behavior--Taking energy-saving household appliances as an example [J]. Statistics and Information Forum, 2018, 33(5).
- [8] Zu Ming, Gong Qun, Yang Wu: Research on the relationship between consumers' environmental value orientation and new energy vehicle purchase intention[J], Enterprise Economics, 2019, Issue 6, pp. 21-27.
- [9] Liu Zengzeng. Research on the impact of environmental sensitivity on green consumption intention[D]. Zhongnan University of Economics and Law,2020.
- [10] Xiang Jing. Research on the impact of advertising appeal on customers' green purchase intention from the perspective of green marketing[D]. Southwest University of Science and Technology,2023.