

# Study on Relationship Between Consumer Behavior and Green Product Demand

Lihua Huang

Fuzhou University of International Studies and Trade  
Fuzhou, China 350200

Wei Zhao

Dhurakij Pundit University  
Bangkok, Thailand

**Abstract**—The recent ten years has witnessed the constant deepening of reform and opening up in China. People have continuously improving requirement for material life standard, and consumer behavior also has higher requirement against green product demand. The relationships, such as consumer behavior–green product demand relation, environmental literacy–green purchasing mentality relation, green purchasing mentality – fashion color purchase intention relation, green purchasing mentality – perceived purchasing risk– green purchasing intention relation, green purchasing psychology – green purchasing cognition relation, and green purchasing attitude – green emotion relation, are the key points for the research.

**Keywords**—consumer behavior; green product; green demand

## I. INTRODUCTION

Chinese people go abroad one after another with the development of tourism in recent two years, and their environmental protection awareness and consumption concept have been gradually influenced with their new understanding of foreign ecological environment and material demand. Consumers also pay attention to the key problems, such as construction materials, house furnishings, electrical apparatus, daily consumables and foodstuff. Especially, food safety has become a problem in people's diet subtly which cannot be ignored. Exposures of such problems are made to the public one after another: seafood products containing "malachite green", "tony red" duck's egg causing trouble, and "melamine" milk powder event, bun produced by illegal workshops, deep-fried dough sticks added with washing powder, squid soaked with formalin, all these are threatening people's health all the time. As a result, green recognition is the important knowledge to be possessed by the consumers prior to purchasing the articles, such as the place of production, processing method, environmental standard, shelf life, etc. Moreover, we are often informed of the news that a child has had leukemia, caused by excessive chemical materials, such as formaldehyde, contained in the decoration materials of the house. Consequently, people pay more and attention to environmental recognition of green products.

## II. CURRENT SITUATION OF GREEN PRODUCT DEMAND

### A. Insufficient Supply of Green Product

China's Green Economy is still in the initial stage to some extent with small market occupancy, high cost, as it is developed later than that of western countries, so it cannot satisfy the demand of consumers of all ranks and classes, and consumers' purchasing enthusiasm is reduced greatly.

### B. Inadequate Recognition of Green Product

1) *Insufficient recognition of green product*: Currently, the green product still cannot satisfy market supply, and quite a lot of consumers haven't accepted or used green products, so there is no comprehensive understanding of the production, packaging, and transportation of green products, let alone the recognition of them, which has critical impact on consumers' intention to buy such products.

2) *Shortage of green product information resources*: Consumers are unable to learn about the characteristics, properties and value of the green products because of deficient green product information, and there is no time for consumers to compare green products with the similar ordinary products, making the consumers incapable of judging the value of green product, reducing the will of consumers to buy green products.

3) *Inaccurate description of green product property*: The value of green product is often exaggerated. As a result, consumers' reliance on the products and their purchase intention has been impacted. We have to find out the source causing environmental problems, so that consumers may be willing to buy and trust the green products. People can enjoy the green service with the improvement of environmental protection recognition and the understanding of importance of green marketing and green product to people's life.

## III. RELATIONSHIP BETWEEN CONSUMER BEHAVIOR AND GREEN PURCHASE

### A. Relation Between Environmental Literacy and Green Purchasing Mentality

According to the data, it can be known by sorting the comprehensive environmental literacy, green purchasing

mentality and perceived purchasing risk that, environmental literacy and green purchasing mentality are the causes and variables of consumers' purchase intention, which originates from people's attention to environmental protection. Li Weibing and Chen Mei (2017) carried out the empirical analysis of impact on residents' environmental protection awareness by absolute income and relative income using the GSS2C013 data. The regression result shows that, absolute income level has positive correlation with residents' environmental protection awareness without considering the relative income effect. However, the coefficient of absolute income level and residents' environmental awareness decreases significantly although they have positive influence once the relative income effect is considered. In addition, relative income level also has positive correlation with residents' environmental awareness. Wang Guomeng and Li Jianxin (2010) et al researched the relationship among individual values, environmental attitude and consumer purchasing behavior, finding that environmental attitude has a positive influence on consumer purchasing behavior. In the research of environmental awareness connotation and its role, Lv Jun and Liu Limei (2006) hold the opinion that environmental awareness reflects the mentality of people, which is the sense of environmental identity. With the effect of such mentality, people will pay attention to the environment and ecological balance consciously, and will maintain the development of ecological system, fight against the behaviors relating to any environmental damage or pollution with vigorous energy.

With respect to the consumers, Bai Shizhen (2017) et al believed that different gender, income level and education background of the consumers have the same significant influence on green agricultural product recognition and premium will, while great differences exist between green agricultural product recognition and purchasing behavior, and between the premium will and purchasing behavior.

Currently, some scholars have researched consumers' green purchasing mentality from the perspective of environmental literacy and have gained certain achievements. Scholar Li Qian (2008) discussed green consumers' green purchasing mechanism starting from the consumer psychological characteristics using literature sorting method, thinking that there is a relationship among environmental literacy, environmental knowledge green, environmental attitude, consumer mentality, green purchasing recognition, green purchasing emotion and purchase intention.

It can be found via summarizing the above research data that, environmental literacy and green consuming mentality are two different concepts, but we can know the relation between the dimensionality of various aspects of environmental literacy and various stages of green purchasing mentality. Therefore, the attention to environment and environmental attitude of environmental literacy as well as the green purchasing mentality recognition and green purchasing emotion are selected to put forward the influence on green purchasing mentality by environmental literacy:

- The attention to environment has positive influence on green purchasing recognition.
- Environmental attitude has positive influence on green purchasing recognition.
- Attention to the environment has positive influence on green purchasing emotion.
- Environmental attitude has positive influence on green purchasing emotion.

#### *B. Relation Between Green Purchasing Mentality and Fashion Color Purchase Intention*

Domestic and foreign scholars have different opinions with respect to the research of consumer purchasing mentality. Wu Longchang and Wang Jianming (2014) summarized green consuming mentality as green consuming recognition, green consuming emotion, green consuming desire and environmental values according to the formation process of psychology. Hu Jiazi (2011) regarded the values, environmental attention degree, sense of individual efficiency and environmental knowledge as psychological factors. Holm and Kildevang (1996) reached a conclusion through investigation and analysis that, consumers' recognition, awareness and the living or working environment, living habit and the people surrounding them have significant influence. A psychological bridge is established between purchasing recognition, purchasing emotion and purchase intention thanks to the research of the influence of environmental factors and consumer purchasing mentality on purchase intention:

- Green purchase recognition has positive influence on green purchase intention.
- Green purchasing emotion has positive influence on green purchase intention.

#### *C. Relation Between Green Purchasing Mentality, Perceived Purchasing Risk and Green Purchase Intention*

The green consuming mentality is a complex psychological process prior to making decision by the purchasers when the green consumers purchase green products. As an intermediary variable, perceived purchasing risk is an indispensable factor while researching the relationship between the purchasing mentalities and purchase will. Garretson and Clow (1991) considered that the perceived purchasing risk of consumers' green recognition originates from the attitude and behavior factors of product and circumstances. The research may contain three aspects of product, consumer and circumstances as the perceived risk is an adjusting variable. First, the characteristics, production origin, quality and brand value can generate deviation of consumer perception. The second is purchaser's recognition, price and demand of the products. Third, the origin of products, purchasing circumstances can influence purchasers' mentality to different degrees. Currently, there are many loopholes in the supervision and control of green products, which make the consumers have doubts and

misgivings prior to purchasing the products, and have influenced the consumers' purchase intention. Hence, the perceived risk is the important psychological factor influencing the purchase intention. The perceived risk may weaken or change the purchase intention of consumers who have high recognition of green consumption, or weaken or change the consuming behavior with positive green purchase intention:

- Perceived purchasing risk plays the role of negative adjustment between green purchasing recognition and green purchase intention. There is positive relation between green purchasing recognition and green purchase intention when the perceived purchasing risk is not high.
- Perceived purchasing risk plays the role of negative adjustment between green purchasing emotion and green purchase intention. There is positive relation between green purchasing emotion and green purchase intention when the perceived purchase intention is not high.

#### *D. Relation Between Green Purchasing Mentality and Green Purchasing Cognition*

The green purchase has many similar titles, including "pro-environmental purchase", "environmental friendly purchase" called by some scholars in addition to "green purchase" called by most of the scholars. But from the current domestic and foreign literatures, it is commonly referred to as "green purchase", which has been recognized by the majority of researchers. So far, the researchers haven't offered a clear definition. It can be known by summarizing the views of Mainieri and Shmm that, green purchase should refer to the consideration and purchasing activity of consumers towards relevant environmental protection properties and characteristics of products in the process of purchasing. In special circumstances, it refers to the purchasing behavior of environmental friendly products or green products. The research is carried out on the influence of environmental literacy and green purchasing mentality on green purchase intention. Therefore, with respect to this concept, it prefers the psychological recognition process prior to procurement.

There is positive influential relation between green recognition and green purchase intention. Zhang Lan, Hu Lei, Sun Maohua and Cao Guanying (2017) pointed out through the research of residents' recognition factors and purchase intention of pure electric vehicles in metropolises that, brand recognition and perceived quality have positive influence on consumers' purchase intention. Li Yong, Hu Dongwen, Ma Xiaoyang (2014) concluded through research that people have different green recognitions, few green recognition channels, and the labels and understanding rate of green products are less than 30%. Such green recognition has impacted the consumers' purchase intention significantly.

#### *E. Relation Between Green Purchasing Attitude and Green Emotion*

Green emotion and purchasing have already had the relation of dependence for a long time. As early as 1960s, "Father of Advertisement" David Ogilvy carried out systematic analysis of consumer demand, which was divided into functional demand and emotional demand according to the demand level, and put forward that multiple measures should be taken to add emotional factors to the products under the precondition that consumer function was satisfied. In his opinion, the homogeneous phenomenon of products is more and more outstanding, and the relation between product acceptance and the emotional value attached to the product is increasingly close. Lin Jianye (2017) pointed out through research that, emotional factor variables, beautiful modeling, social interaction, and brand fidelity have positive influence on green purchasing attitude.

### IV. CONCLUSION

At present, people have had certain knowledge about green recognition with the government's education and propaganda of environmental protection knowledge. But there is still wide gap between China and the western developed countries, such as European countries, America and Japan, with respect to this respect, which are reflected in the following: First, the production technology is lagged behind. The green product recognition in China is insufficient with low standard, so the green product quality cannot be guaranteed. Second, consumers are short of green product knowledge, resulting in that they are unable to recognize the quality of green product objectively, and their purchasing power of green product is reduced. Third, the production is too dispersed to form large industrial chain, and the production scale is unable to reach the market demand. Hence, large amount of works are still needed to make the consumers trust the green product and reach the purchase intention.

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