Cognition, Value Perception and Purchase Intention of Organic Food—Evidence from China’s Organic Milk Market

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Abstract: Organic agriculture is of great significance to human health and the ecosystem, and the consumption of organic food is considered a kind of pro-environment behavior of urban residents. Taking value perception, food safety awareness and environmental awareness as mediating variables, an analytical framework of the influence of “organic” cognition on purchase intention was constructed in this paper, and the empirical test was implemented by the Ologit model based on the micro-survey of organic milk purchase intention of 1113 urban consumers in China. The results show that cognitive level positively affects residents’ value perception and purchase intention of organic food, and value perception plays an intermediary role in the influence of cognition on purchase intention; meanwhile, consumers’ food safety awareness and environmental awareness play a moderating role between cognition and value perception, thus the mediating effect of value perception on the relationship between cognition and purchase intention is also regulated. Therefore, using diversified ways to publicize organic food knowledge is of positive significance to enhance consumers’ “organic” cognitive level and enhance their purchase intention in practice. Providing differentiated products and services, strengthening consumers’ benign social interaction and meeting their diversified value pursuit is crucial for suppliers. Meanwhile, the government and enterprises need to strengthen the popularization and dissemination of environmental protection and food safety knowledge to enhance consumers’ environmental and food safety awareness, improving the social environment of the cultivation of the organic food market.

Keywords: cognition; purchase intention; value perception; food safety awareness; environmental awareness

1. Introduction

With the prominence of environmental and food safety problems, the practice of organic agriculture and organic food have aroused great interest in the past decades [1]. The consumption of organic food is regarded as a kind of pro-environmental behavior because of its benefits to environmental protection, public health and the interests of future generations [2,3], and has gradually become a new fashion trend [4]. Organic farming is now carried out in 178 countries according to relevant reports, and global sales have increased from $7.9 billion in 2000 to $89.7 billion in 2016 [5]. In China, numerous food safety incidents have raised questions about agricultural products that use a lot of pesticides, chemical fertilizers and growth regulators. While consumers pay more and more attention to a healthy diet, economic development and the rising income level of residents have relaxed the budget constraints for consumers to buy organic food. Theoretically, the spring of organic food in China should come. However, the willingness to consume organic food in Chinese consumers, as well as the development power of the organic consumption market in China, is insufficient. The market share and consumer expenditure share of organic food stay relatively low [6,7], which means the organic agriculture industry has remained at a low level of development for a long time in China. In the context that green...
ecology and sustainable development have become the main themes of the times, deeply discussing the main factors that affect consumers’ willingness to buy organic food and analyzing the decision-making logic of consumers’ behavior has great practical significance to enhance consumers’ willingness to buy organic food as well as promote the development of organic agriculture and ensure food safety.

From the current literature, there are abundant research results of organic food consumption behavior. However, as pointed out by Kushwah et al. [8], the mainstream theoretical frameworks of organic food consumption research in academia are the mean chain theory, the expected value attitude theory, the consumption value theory, the planned behavior theory and the health belief model, etc. The main purpose of the research is how to promote the potential motivation of organic food consumption, while the research on the obstacles of organic food consumption is relatively few. Therefore, Kushwah et al. [9] stressed the need to pay more attention to the obstacles and barriers in the organic food consumption market.

Relatively speaking, although research focusing on organic food consumption is relatively rare in China, positive attention has been paid to the obstacles that affect consumers’ green purchase decisions. For example, Wencheng et al. [10] believe that the consumer trust crisis caused by information asymmetry is the main cause of hindering the consumption of organic food. Lin and Minggui [11] confirmed that the negative impact of the trust crisis on consumers’ behavior choices is particularly significant in the food industry. The research of Jian et al. [12] indicates that the limitation of consumers’ green psychological consciousness, individual ability dilemma and perceived risk are key factors hindering consumers’ green consumption behavior. Shijiu et al. [13] believe that the lack of consumer trust is the bottleneck restricting the development of a certified safe food market and that improving consumer trust is the key issue that needs to be addressed to promote market development. Moreover, some scholars have also conducted a preliminary investigation of the influencing factors and the generation mechanism of the trust mechanism [14,15].

Generally speaking, the trust mechanism, as a direction commonly involved in the research of alternative food systems, currently occupies the core of the discussion of “organic food” in China [16], which provides an important reference for the research of this paper. Nevertheless, scholars generally emphasize the negative impact of lack of trust on consumers’ behavior but do not pay enough attention to the obstacles outside of trust, such as consumers’ cognitive level of organic food and the value perception determined by it. Although these factors are mentioned in some literature, it is a pity that most of these studies do not use them as direct explanatory variables for empirical analysis, there is occasionally literature that directly explores the impact of cognition on purchase behavior, but they have no further explanation of the logical mechanism of its influence. For example, Zengjin and Juan [17] and Yinong [18] only mentioned in the conclusion of their studies that consumers’ cognitive level is the key to affecting consumers’ purchase of organic food. A lower level of cognition may reduce consumers’ willingness to buy organic food. Chen et al. [19] empirically tested the impact of consumers’ organic cognition on purchase decisions only from three horizontal dimensions: quality cognition, externality cognition and supply cognition. Playing down the factors other than trust in the study may lead to the neglect of the importance of these factors, and a deep analysis of the influence of other factors such as consumer cognitive level is of great practical significance to the understanding of consumer behavior logic, and is also an important supplement to the existing research.

This paper constructs a theoretical analysis framework of “cognition-willingness”, which includes value perception, food safety awareness and environmental protection awareness as mediating variables, then the micro-survey data of organic milk consumption of 1113 urban consumers in China is used to empirically test the influence of cognition on organic food purchase intention and the logical mechanism behind it. At the same time, to understand the influencing factors of residents’ consumption willingness more comprehensively, this paper also brings their trust level, personal characteristics, family
characteristics and other factors into the analysis framework, trying to provide new ideas for effectively solving the cultivation dilemma of the organic food market.

2. Theoretical Analysis and Hypothesis

2.1. Consumers’ Cognitive Level and Purchase Intention of Organic Food

Organic food usually comes from the organic agricultural production system, and its production and processing have a set of strict “organic” requirements and standards, including unique production conditions, production methods, circulation links and certification management. Compared with ordinary food, “organic” food has more professional and complex product information, and consumers’ mastery of the unique properties and related knowledge of “organic” food is defined as “organic” cognitive level in this paper. Generally, as a social activity that is embedded in the social environment, the relevant knowledge and information of organic food consumption will inevitably be understood by customers in the process of interaction with the consumption environment, then gradually turned into consumers’ own knowledge reserve, which serves as a reference and logical analysis resource for pre-purchase analysis, comparison, judgment and even decision-making. However, due to the influence of many factors, such as environment, education level, life experience and so on, consumers’ organic cognitive level shows obvious heterogeneity.

In the market of organic agricultural products, the level of cognition is an important factor that affects whether consumers pay attention to products or not and will further affect consumers’ willingness to buy. Compared with the lower cognitive level, the higher cognitive level is easier to start the “cognitive channel”, allowing consumers to make rational judgments based on risk and benefit analysis, rather than simply refusing [20]. At the same time, a higher level of cognition is conducive to the establishment of consumer trust in organic food [21]. Organic agricultural products have the characteristics of trust products, the authenticity and purity of their “organic” attributes are known only to suppliers, but it is not easy for consumers to identify. This differentiation of information possession and cognition will directly lead to the inequality of the status of both sides in the transaction relationship, and further strengthen consumers’ sense of uncertainty. This experience will make them anxious in decision-making, and they will actively search for product-related information through various channels, such as product brand, certification, conditions of origin, sales channels, consumer evaluation and so on, to avoid risks. This kind of “information acquisition” provides analytical materials and decision-making basis for consumers’ rational cognitive system, while consumers’ “organic” cognitive level will affect the formation of consumer trust by restricting the efficiency of information analysis. Compared with consumers with lower cognitive level, consumers with a higher cognitive level tend to have a higher efficiency of information processing, and usually possess a higher the level of trust based on information processing. In the organic food market, trust is the key to determine consumers’ decision to buy organic food [22]. Consumers have lower risk perception and stronger purchase intention when they possess a higher level of trust [23].

Based on this, this paper first assumes that:

**Hypothesis 1 (H1).** consumers’ “organic” cognitive level positively affects the purchase intention of organic food.

2.2. The Mediating Effect of Consumers’ Value Perception

Consumers’ value perception refers to consumers’ perceptual preference and evaluation of whether the specific attributes of the product help or hinder achieving their goals and intentions in the process of product consumption. Referring to the research of Sheth [24], this paper holds that the value perception of organic food consumers mainly includes two dimensions: environmental value and health value.

The first is the value of environmental protection. The emergence of organic agriculture is mainly to improve and protect the environment, it can reduce soil erosion and
degradation, reduce agricultural non-point source pollution and maintain biodiversity. Therefore, the consumption of organic food is regarded as a kind of pro-environmental behavior. Related research [25] has also confirmed that consumers’ preference for organic food often exceeds their original intention of consumption, it is actually because of their green consumption concept or elite image. Second, due to the special requirements of the production environment and production process of organic food, consumers often associate it with health, safety and pleasant taste [26,27]. In the context of prominent food safety risks, consumers are willing to pay a premium for it, mainly due to the health and safety brought by its high quality, which is consumers’ basic requirement for organic food. As pointed out by Marchand and Walker [28], individuals seek a more sustainable lifestyle not only because they are environmentally conscious and understand their role in the environment, but also because they expect to gain personal benefit or utility through the consumption or use of products.

However, consumers’ value perception is affected by consumers’ awareness of organic food. Based on the random utility theory, the utility that consumers get from product consumption does not come from the product itself, but from the specific attributes of the product [18]. Organic food is a kind of credence product, its specific properties are not easy to be recognized by consumers even after consuming [29]. Therefore, the perception of the value of organic food consumption mainly comes from the understanding and trust of its “organic” attribute. Understanding and trust are the antecedent variables of value perception and purchase intention, that is, the higher the level of consumers’ awareness and trust of the product, the higher their perception of the value of the product [30]. At the same time, the research based on the “quality-value-purchase intention” model (QVB) shows that value perception is a key factor for consumers to consider when making organic food purchase decisions. The research of Chijima et al. [1] further confirmed that value perception has a significant positive impact on consumers’ purchase of organic food. Therefore, the essential reason why different consumers’ organic cognition leads to the difference in purchase intention lies in whether consumers can perceive the value they want from consumption. The willingness to buy will occur only when consumers have an adequate value perception. In summary, the following hypotheses were put forward in this paper:

**Hypothesis 2a (H2a).** consumers’ “organic” cognition level positively affects consumers’ environmental protection value perception.

**Hypothesis 2b (H2b).** consumers’ “organic” cognitive level positively affects consumers’ health value perception.

**Hypothesis 3a (H3a).** consumers’ environmental protection value perception plays an intermediary role in the influence of consumers’ “organic” cognition on their purchase intention.

**Hypothesis 3b (H3b).** consumers’ health value perception plays an intermediary role in the influence of consumers’ “organic” cognition on their purchase intention.

### 2.3. The Regulating Role of Environmental Protection Awareness and Food Safety Awareness in Consumers’ Cognitive Influence on Value Perception

Environmental protection consciousness refers to people’s consciousness of constantly adjusting their economic activities and social behavior to protect the environment. Consumers with higher awareness of environmental protection are often able to understand the current situation and consequences of environmental deterioration more clearly, understand the importance and urgency of environmental protection and may give a higher evaluation of the environmental value of organic food, while consumers with lower awareness of environmental protection have a relatively vague understanding, and their perception of the value of environmental protection may be more negative. Food safety awareness refers to the degree of consumers’ attention to food safety issues, which also reflects the extent to
which consumers attach importance to diet health. Consumers with stronger food safety awareness are more skeptical about the safety of conventional food and can feel the value of the health properties of organic food more deeply [13]. Hence, even at the same level of organic cognition, the value perception of consumers with different food safety awareness and environmental awareness will be different. Based on this, the following assumptions were put forward in this paper:

**Hypothesis 4a (H4a):** consumer environmental protection awareness positively affects environmental protection value perception.

**Hypothesis 4b (H4b):** consumer food safety awareness positively affects health value perception.

**Hypothesis 5a (H5a):** consumer environmental protection awareness plays a regulating role between “organic” cognition and environmental protection value perception.

**Hypothesis 5b (H5b):** consumers’ food safety awareness plays a regulating role between “organic” cognition and health value perception.

Based on the hypotheses of H3a, H3b and H5a, H5b, this paper further infers that consumers’ food safety awareness and environmental protection awareness may also have a moderating effect on the intermediary effect of value perception between “organic cognition” and purchase intention. That is, with strong food safety awareness and environmental protection awareness, the indirect impact of “organic” cognition on purchase intention through the intermediary role of value perception is correspondingly enhanced; on the contrary, with weak food safety awareness and environmental protection awareness, the indirect effect of “organic” cognition transmitted through value perception on purchase intention is correspondingly weakened. Based on this, the following assumptions are further put forward:

**Hypothesis 6a (H6a):** consumers’ awareness of environmental protection will regulate the intermediary role of environmental value perception between “organic” cognition and purchase intention.

**Hypothesis 6b (H6b):** consumers’ food safety awareness will regulate the intermediary role of health value perception between “organic” cognition and purchase intention.

From the above, this paper summarizes the theoretical framework model in Figure 1.
3. Research and Design

3.1. Data Sources and Model Selection

The questionnaire survey method was used to obtain the sample data as the main variables of this study are difficult to measure through the public statistical data. The items in the questionnaire were appropriately revised and adjusted based on the existing maturity scale to ensure the effectiveness of the measurement results. The survey was mainly distributed through the “questionnaire Star” website (https://www.wjx.cn). A presurvey was conducted by using the opportunity of the internship survey of undergraduate students of grades 2017 and 2018 majoring in rural regional development in Southwest University before the formal questionnaire was issued. Four representative provinces (municipalities directly under the Central Government) of China were selected in the eastern, central and western regions after further optimizing and perfecting the items of the questionnaire; among them, the eastern provinces (cities) include Beijing, Shanghai, Guangdong and Jiangsu, the central provinces (cities) include Hubei, Hunan, Jiangxi and Anhui and the western provinces (cities) include Sichuan, Chongqing, Shaanxi and Yunnan. One hundred questionnaires were distributed in the central cities of each province (city) and a total of 1200 questionnaires were sent out, then 1062 valid questionnaires were collected. In addition, 200 questionnaires were distributed offline by the summer survey team of graduate students majoring in Agricultural Economic Management of Southwest University to compensate for the omission of data from non-online consumers: 189 valid questionnaires were collected. A total of 1251 valid samples were obtained in this survey.

According to the survey, among the 1251 samples, 1113 expressed willingness to buy organic milk, accounting for 89%, and only 138 samples have no intention to buy organic milk at all, accounting for 11%, indicating that organic food is increasingly becoming the favorite object of Chinese consumers. Compared with “the intensity of the purchase intention “, the question of “whether the willingness to buy is possessed” is not important, and it is of little significance to use the Heckman model to test in stages. Therefore, this paper focuses on the intensity of the purchase intention: a small number of samples with no purchase intention were excluded in the empirical study, and 1113 samples were used in the regression analysis. According to the previous hypotheses and empirical research experience, the dependent variable (purchase intention) was set to the classified ordered continuous variable \([1–5]\), and the ordered Logit model (Ologit) was used to estimate in this paper.

3.2. Measurements of the Variables

3.2.1. The “Organic” Cognitive Level of Consumers

The level of “organic” cognitive reflects consumers’ mastery of organic food-related knowledge. Referring to the general practice of the existing research, five items were set to investigate and determine consumers’ understanding of “organic food” in this paper, which involves the production conditions, certification management and other aspects of organic food. The items come from the official publicity materials of the China National Certification and Accreditation Regulatory Commission on “Popularization of knowledge about Organic products”. They are: “Which one possesses the best quality among green food, pollution-free food and organic food?”,”Are there any clear requirements for the producing environment (air quality, soil, irrigation water) of organic food?” “Which department is responsible for the management, supervision and comprehensive coordination of organic product certification nationwide?” “How many years is the organic certification certificate valid according to international practice and Chinese standards?” “Which kind of traceability system does China implement for organic food?”

One point is awarded for each correct answer in the questionnaire, the score interval is \([0, 5]\) and represents the cognitive level of “organic food” of the sample consumers.
3.2.2. The Value Perception of Consumers

As mentioned above, consumers’ value perception of organic food mainly includes two dimensions: health value perception and environmental protection value perception. Because of the unique properties of organic food, health orientation and hedonism are the main motivations of organic food consumption [31]. Therefore, the measurement of health value perception of products includes two aspects: health benefits and physical and mental pleasure. Using the scale setting of Shijiu et al. [14] for reference, it was measured by two items: “How does it taste” and “Whether the consumption is good for health”. The item “Do you think the consumption of organic agricultural products is conducive to the protection of the ecological environment?” was raised to measure the value perception of environmental protection.

3.2.3. Consumers’ Purchase Intention, Food Safety Awareness and Environmental Awareness

The item “do you have a strong willingness to buy organic milk?” was raised to measure consumers’ willingness to buy. The item “do you often pay attention to or talk about food safety issues?” was raised to measure consumers’ food safety awareness, while the item “do you often pay attention to or talk about environmental issues?” was raised to measure consumers’ environmental awareness.

3.2.4. Control Variables

Individual characteristics: The research of Hongge et al. [32] was used for reference, and the following individual characteristics variables were selected: (1) Gender: generally speaking, female consumers pay more attention to the quality of daily life and diet health and safety and have a stronger willingness to spend on organic food. (2) Age: the older population tends to have a more conservative consumption attitude, and usually have a lower motivation to consume organic food due to the high price of it. (3) Occupation: occupation represents different social identities of consumers, and also presents different consumption mentality and styles in life, which may affect their consumption of organic food. (4) Level of social trust: trust is an important variable that affects decision-making. With reference to the existing research, the item “in today’s society, the vast majority of people are trustworthy, do you agree?” was raised to measure the level of social trust of consumers.

Familial characteristics: (1) Level of family income: the price is generally considered to be the main obstacle to the consumption of organic food [33] and income level is an important factor in consumer behavior decision-making. Therefore, when examining the consumption of organic food, the personal financial resources reflected in the individual’s ability to pay must be considered [34]. In general, the level of income has a positive impact on consumers’ purchase behavior of high-quality and high-price goods. (2) Family structure (mainly examining whether there are elderly people or children): families with elderly people and children usually pay more attention to the health and safety of food consumption, and their willingness to buy organic food is stronger.

Regional characteristics (refers to the location of consumers in eastern, central and western China): due to the different levels of economic and social development in different regions and the differences in consumers’ ideologies, it may have a certain impact on the purchasing behavior of organic food.

4. Empirical Results and Analysis

4.1. Descriptive Statistical Analysis

As mentioned above, in the context that the food safety problem has not been completely solved and the construction of ecological civilization is vigorously promoted in China, organic agriculture and organic food have received more and more attention, but consumers have little willingness to buy organic food. Preliminary statistics show that the overall level of consumers’ willingness to buy organic milk is still low and shows obvious
heterogeneity. The mean and standard deviation of other variables are shown in Table 1. There is a significant positive correlation among the core variables, purchase intention, “organic” cognitive level, value perception, food safety awareness and environmental protection awareness. The correlation coefficient is shown in Table 2, which preliminarily supports the relevant hypotheses of this study.

**Table 1.** Definition of variables and statistical description.

| Variables                     | Definition of the Variables                                                                 | Mean     | Standard Deviation |
|-------------------------------|-----------------------------------------------------------------------------------------------|----------|--------------------|
| **Dependent variable**        | Purchase Intention                                                                          | 2.260    | 0.948              |
| **Key explanatory variable**  | “Organic” cognitive level                                                                     | 3.110    | 1.111              |
| **Mediating variable**        | Health value perception                                                                      | 3.235    | 0.762              |
| **Moderator**                 | Food safety awareness                                                                        | 4.986    | 1.323              |
| **Control variable**          | Gender                                                                                       | 0.721    | 0.449              |
|                               | Age                                                                                          | 2.082    | 0.900              |
|                               | Occupation                                                                                   | 0.654    | 0.476              |
|                               | Social trust level                                                                           | 4.722    | 1.283              |
|                               | Family (per capita) annual income level                                                      | 5.133    | 1.834              |
|                               | Family structure                                                                             | 0.798    | 0.402              |
|                               | Area                                                                                         | 2.006    | 0.815              |

**Table 2.** Correlation coefficient matrix of the core variables.

|                                | Purchase Intention | “Organic” Cognitive Level | Environmental Value Perception | Health Value Perception | Food Safety Awareness | Environmental Awareness |
|--------------------------------|--------------------|---------------------------|--------------------------------|-------------------------|-----------------------|------------------------|
| Purchase Intention             | 1                  |                           |                                |                         |                       |                        |
| “Organic” cognitive level      | 0.116***           | 1                         |                                |                         |                       |                        |
| Environmental value perception | 0.293***           | 0.147***                  | 1                              |                         |                       |                        |
| Health value perception        | 0.265***           | 0.220***                  | 0.450***                       | 1                       |                       |                        |
| Food safety awareness          | 0.189***           | 0.135***                  | 0.284***                       | 0.374***                | 1                     |                        |
| Environmental awareness        | 0.187***           | 0.151***                  | 0.270***                       | 0.367***                | 0.806***              | 1                      |

Note: The robust standard errors are in the brackets; *, **, and *** represent significance at the statistical level of 10%, 5%, and 1%, respectively.
4.2. Tests of the Hypotheses

The test results of the hypothesis of this paper are shown in Tables 3 and 4.

Table 3 (1) reports the direct relationship between the level of consumers’ “organic cognition” and their willingness to buy organic food. The results of regression analysis show that after controlling variables such as family characteristics and individual characteristics, the level of consumers’ organic cognition has a significant positive impact on their willingness to buy, and the significance level test of 5% was passed, so the H1 has been verified.

Among the control variables, the level of social trust and family structure significantly affect the willingness to buy. It shows that families with a higher level of social trust and families with the elderly and children are more willing to buy organic food through the significance level test of 1%. The influence of food safety awareness and occupation on purchasing intention is also significant, it indicates that families with a higher food safety awareness or civil servants’ families are more willing to buy organic food through the significance level test of 5%. Age was significantly negatively correlated with purchase intention and passed the significance level test of 1%. In addition, gender, awareness of environmental protection, family income, regional characteristics and other variables are correlated with the purchase intention of organic food—the test results are basically consistent with the hypothesis.

| Variables                  | (1) H1 | (2) H2a | (3) H2b | (4) H3a | (5) H3b | (6) H3a | (7) H3b |
|----------------------------|--------|---------|---------|---------|---------|---------|---------|
| “Organic” cognitive level  | 0.129 ** | 0.170 *** | 0.256 *** | 0.094 *  | 0.089 *  |         |         |
| Environmental value        |        |         |         |         |         |         |         |
| perception                | 0.129 ** | 0.170 *** | 0.256 *** |         |         |         |         |
| Health value perception    | 0.129 ** | 0.170 *** | 0.256 *** |         |         |         |         |
| Environmental awareness    | 0.090  | 0.130 *  | 0.165 ** | 0.077  | 0.058  | 0.070  | 0.052  |
| (0.070)                    | (0.076) | (0.072) | (0.070) | (0.072) | (0.071) | (0.071) | (0.072) |
| Food safety awareness      | 0.140 ** | 0.275 *** | 0.304 *** | 0.078  | 0.094  | 0.078  | 0.095  |
| (0.067)                    | (0.076) | (0.071) | (0.068) | (0.067) | (0.068) | (0.068) | (0.067) |
| Gender                     | −0.089 | 0.146  | 0.076  | −0.117 | −0.105 | −0.124 | −0.110 |
| (0.118)                    | (0.124) | (0.122) | (0.119) | (0.118) | (0.119) | (0.118) | (0.118) |
| Age                       | −0.223 *** | −0.019 | −0.017 | −0.232 *** | −0.224 *** | −0.229 *** | −0.221 *** |
| (0.067)                    | (0.071) | (0.060) | (0.068) | (0.067) | (0.068) | (0.068) | (0.067) |
| Occupation                 | 0.298 ** | 0.050  | 0.150  | 0.275 ** | 0.261 ** | 0.279 ** | 0.266 ** |
| (0.118)                    | (0.122) | (0.114) | (0.120) | (0.119) | (0.120) | (0.119) | (0.119) |
| Social trust level         | 0.179 *** | 0.173 *** | 0.340 *** | 0.151 *** | 0.129 *** | 0.149 *** | 0.128 *** |
| (0.044)                    | (0.049) | (0.054) | (0.044) | (0.045) | (0.044) | (0.045) | (0.045) |
| Family structure           | 0.363 *** | 0.027  | 0.224 * | 0.387 *** | 0.367 *** | 0.367 *** | 0.356 *** |
| (0.134)                    | (0.142) | (0.131) | (0.142) | (0.136) | (0.142) | (0.136) | (0.136) |
| Family income              | 0.043  | 0.071 ** | 0.102 *** | 0.033  | 0.032  | 0.026  | 0.026  |
| (0.034)                    | (0.033) | (0.033) | (0.034) | (0.034) | (0.034) | (0.034) | (0.034) |
| Area                       | 0.086  | 0.111  | 0.015  | 0.050  | 0.082  | 0.065  | 0.095  |
| (0.070)                    | (0.071) | (0.066) | (0.070) | (0.070) | (0.071) | (0.070) | (0.070) |
| Wald X²                    | 94.9   | 124.9  | 238.1  | 136.3  | 113.3  | 139.6  | 114.6  |
| Prob > X²                  | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pseudo R²                  | 0.0353 | 0.0554 | 0.0647 | 0.0536 | 0.0448 | 0.0547 | 0.0457 |
| Observations               | 1113   | 1113   | 1113   | 1113   | 1113   | 1113   | 1113   |

Note: The robust standard errors are in the brackets; *, **, and *** represent significance at the statistical level of 10%, 5%, and 1%, respectively. Wald X² represents the combined test statistics of parameters. Pseudo R² represents virtual decision coefficients.
The test results of H2a and H2b are shown in Table 3 (2) and (3). After controlling for the demographic variables, consumers’ “organic” cognitive level is significantly positively correlated with value perception of environmental protection and health value perception. The results in Table 3 (4) and (5) show that consumers’ value perception of environmental protection and health value perception is significantly positively correlated with purchase intention. Table 3 (6) and (7) put consumers’ “organic” cognitive level, value perception of environmental protection and health value perception into the regression model at the same time, that is, after controlling for the influence of cognitive level on purchase intention, the positive effects of value perception of environmental protection and health value perception are still significant, indicating that the indirect effect of consumers’ “organic” cognition level on purchase intention through value perception has reached a significant level. Therefore, the simple intermediary effect of consumer value perception is significant, and the H3a and H3b are supported.

For the estimated results of H4a and H4b, as shown in Table 4 (1) and (2), consumers’ environmental awareness and food safety awareness have significant positive effects on value perception of environmental protection and health value perception respectively, and the significance level test of 1% was passed. For H5a, the empirical study puts consumers’ “organic” cognitive level and environmental protection awareness into the model regression at the same time. The estimated results in Table 4 (3) and (4) show that consumers’ “organic” cognitive level and environmental protection awareness are significantly positively correlated with the value perception of environmental protection.
After the interaction between the two was further introduced, the impact of consumers’ “organic” cognitive level and environmental protection awareness is not significant, while the effect of its interaction is significant at 10% of the statistical level, indicating that consumers’ awareness of environmental protection plays a significant role in regulating the “organic” cognitive level of consumers and their perception of the value of environmental protection. For H5b, the same test method was adopted in this paper. The results of Table 4 (5) and (6) show that consumers’ food safety awareness also plays a significant role in regulating consumers’ “organic” cognitive level and health value perception. That is, in the case of high food safety awareness, consumers’ “organic” cognitive level has a stronger positive impact on health value perception, while in the case of low food safety awareness, the positive impact of consumers’ “organic” cognitive level on health value perception is weakened.

Finally, as shown in Table 5, consumers’ “organic” cognitive level has a strong indirect effect on purchase intention through value perception with high environmental awareness and food safety awareness, and the indirect effect is weak when environmental protection awareness and food safety awareness are insufficient. The intermediary effect of consumer value perception on the relationship between “organic” cognitive level and purchase intention is regulated by environmental awareness and food safety awareness, that is, the regulated intermediary effect is produced, and H6a and H6b were verified.

Table 5. The mediating effect values of value perception at different levels of regulatory variables.

|                      | Coefficient | Standard Error | 95% Confidence Interval | Environmental Awareness | Food Safety Awareness |
|----------------------|-------------|----------------|-------------------------|-------------------------|----------------------|
| Mediating effect of   | 0.027       | 0.008          | (0.013, 0.047)          | M – SD                  |                      |
| environmental        | 0.032       | 0.006          | (0.02, 0.046)           | M                       |                      |
| value perception      | 0.035       | 0.09           | (0.019, 0.058)          | M + SD                  |                      |
| Mediating effect of   | 0.006       | 0.007          | (−0.007, 0.02)          | M – SD                  |                      |
| health value          | 0.02        | 0.006          | (0.009, 0.036)          | M                       |                      |
| perception            | 0.036       | 0.008          | (0.022, 0.054)          | M + SD                  |                      |

Note: M represents the Mean of the regulating variables, SD represents the standard deviation of the regulating variables.

To sum up, all the hypotheses of this paper have been empirically supported.

4.3. Robustness Test

The core explanatory variables were redefined in this paper to test the robustness of the estimated results. According to the existing research, “organic” cognition can be divided into objective and subjective latitudes. Compared with the objective “cognitive” level, the subjective cognitive level is consumers’ subjective perception of their knowledge level [35]. Although the two have different influence paths on behavior decision-making, the influence direction is the same. Therefore, this paper first used consumers’ subjective cognitive level to replace the original objective “organic” cognitive level, and the corresponding item is “how much do you know about organic food knowledge?” At the same time, consumers’ recognition of the environmental protection value of organic agriculture was used to replace the variable of consumers’ perception of environmental protection value, and the corresponding item is “do you think organic agricultural production is conducive to the protection of the ecological environment?” The “overall evaluation of consumers” was used to replace the perceived variable of the health value of consumers, and the corresponding item is “how does your family evaluate organic milk in general after consuming?” Consumers’ food safety risk perception was used to replace food safety awareness, with the item “do you think the food safety problem is serious now?” Consumers’ willingness to pay for environmental protection was adopted to replace environmental protection awareness, with the item “are you willing to make your own contribution to environmental protection?”
The regression analysis was carried out again on this basis, and the new estimated results are shown in Tables 6 and 7. The results show that there is a significant positive correlation between subjective consumers’ “organic” cognitive level and purchase intention, and there is still a significant mediating effect between consumers’ “organic” cognitive level and purchase intention, while the interaction between consumers’ environmental protection awareness, food safety awareness and consumers’ “organic” cognition is positively correlated with value perception. The substitute variables of consumers’ value perception of environmental protection and health value perception still have a significant mediating effect between consumers’ “organic” cognitive level and purchase intention. The estimated results are basically consistent with those in Tables 3 and 4, indicating that the estimated results of the model are relatively robust.

Table 6. Robustness Test (I).

| Variables                  | (1) H1 | (2) H2a | (3) H2b | (4) H3a | (5) H3b | (6) H3a | (7) H3b |
|----------------------------|-------|--------|--------|--------|--------|--------|--------|
| “Organic” cognition        | 0.128 ** | 0.158 *** | 0.245 *** | 0.098 * | 0.091 * |       |        |
| Environmental value        |       |        |        |        |        |        |        |
| perception                 | (0.052) | (0.052) | (0.050) |        |        |        |        |
| Health value perception    |       |        |        |        |        |        |        |
|                            | 0.609 *** |        | 0.597 *** |        |        |        |        |
|                            | (0.086) | (0.087) |        |        |        |        |        |
| Wald $X^2$                 | 100.3 | 129.5 | 232.9 | 141.8 | 118 | 145.5 | 120 |
| Prob $> X^2$               | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Pseudo $R^2$               | 0.0366 | 0.0565 | 0.0643 | 0.0541 | 0.0456 | 0.0554 | 0.0467 |
| Observations               | 1113 | 1113 | 1113 | 1113 | 1113 | 1113 | 1113 |

Note: The robust standard errors are in the brackets; *, **, and *** represent significance at the statistical level of 10%, 5%, and 1%, respectively. Wald $X^2$ represents the combined test statistics of parameters. Pseudo $R^2$ represents virtual decision coefficients.

Table 7. Robustness Test (II).

| Variables                  | (1) $H4a$ | (2) $H5a$ | (3) $H5a$ | (4) $H4b$ | (5) $H5b$ | (6) $H5b$ |
|----------------------------|----------|----------|----------|----------|----------|----------|
| “Organic” cognition        | 0.136 *** | 0.140 | 0.135 *** | −0.176 |       |        |
| Environmental awareness    | 0.221 *** | 0.209 *** | 0.211 | (0.051) | (0.233) | (0.191) |
| Food safety awareness      | (0.051) | (0.051) | (0.137) |        |        |        |
| “Organic” awareness level *|       |        |        |        |        |        |
| Willingness to pay for environmental protection | 0.001 | | | | | |
| “Organic” cognitive level * Food safety risk perception | | | | | | |
| Wald $X^2$                 | 82.3 | 92.6 | 92.8 | 87.8 | 94.56 | 100.1 |
| Prob $> X^2$               | 0 | 0 | 0 | 0 | 0 | 0 |
| Pseudo $R^2$               | 0.0306 | 0.033 | 0.033 | 0.0325 | 0.0349 | 0.0358 |
| Observations               | 1113 | 1113 | 1113 | 1113 | 1113 | 1113 |

Note: The robust standard errors are in the brackets; *, **, and *** represent significance at the statistical level of 10%, 5%, and 1%, respectively. Wald $X^2$ represents the combined test statistics of parameters. Pseudo $R^2$ represents virtual decision coefficients.

5. Conclusions and Revelations

5.1. Conclusions

(1) Consumers’ “organic” cognitive level positively affects their purchase intention and value perception. This paper found that in the organic food market, cognition, as the basis for the analysis of consumers’ logical thinking, is an important factor in
determining their willingness to buy, and the improvement of consumers’ cognitive level is conducive to promoting the cultivation of the organic food market; on the contrary, consumers’ lack of “organic” cognition will limit their willingness to buy and hinder the development of the organic food market.

(2) Value perception plays an intermediary role in the influence of consumers’ “organic” cognitive level on their purchase intention. Compared with consumers’ cognition, value perception is a more direct factor that affects consumers’ willingness to buy. The difference in purchase intention caused by different levels of consumers’ cognition is realized to a certain extent by affecting consumers’ perception of value.

(3) Environmental protection awareness and food safety awareness play a moderating role between consumer perception and value perception. Under the condition of higher environmental protection awareness and food safety awareness, consumer cognition has a stronger positive impact on value perception, while under the condition of insufficient environmental protection awareness and food safety awareness, cognition has less influence on value perception. Thus, the intermediary effect of consumer value perception on the relationship between consumer cognition and purchase intention is also regulated by consumers’ environmental awareness and food safety awareness in the same direction. That is, it produces a regulated intermediary effect.

5.2. Practical Revelations

(1) Cognition is closely related to willingness, and consumers’ lack of “organic” cognition is an important obstacle to the cultivation of the organic food market at present. Therefore, it is necessary to publicize the knowledge of organic food to consumers through diversified ways, including its unique production conditions, production modes, circulation and certification managements, to enhance people’s understanding of the unique properties of organic food. For single organic food suppliers, in addition to further strengthening the information transmission functions such as authentication, brand and traceability system, it is needed to give full attention to the role of modern information technology to achieve real-time information sharing with consumers, display the relevant information of organic food more intuitively, reduce consumers’ sense of uncertainty and enhance their cognition of organic food.

(2) To a large extent, the influence of cognition on purchase intention is achieved through the intermediary role of consumers’ value perception, so it is important to improve consumers’ “organic” cognitive level. The key to keep them paying the bill is to provide differentiated products and services to strengthen consumers’ benign social interaction, and to meet consumers’ diversified value pursuit. For example, through the establishment of a virtual online community with consumers’ participation, consumers can widely communicate, obtain information and knowledge related to organic food consumption, express their own comments and views and gain friendship and recognition on the network platform, enhancing the sense of social participation and community belonging, and effectively enhancing the level of consumers’ sense of value.

(3) As consumers’ awareness of environmental protection and food safety play a moderating role between cognition and value perception, and ultimately affect consumers’ willingness to buy, there are obvious differences between Chinese consumers’ awareness of environmental protection and food safety at present, as revealed by the results. Therefore, it is necessary for the government and enterprises to strengthen the popularization and dissemination of environmental protection and food safety knowledge, enhance consumers’ awareness of environmental protection and food safety and improve the social environment of the cultivation of the organic food market.

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