Antecedents of Trust in Organic Foods: The Mediating Role of Food Related Personality Traits

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Abstract: The current study focuses on identifying the factors responsible for building trust in organic foods. This study also attempted to establish the mediating role of food-related personality traits in building such trust. The quantitative data was collected from the Liaoning province of China through a structured questionnaire (n = 420). Established scales were adopted for measuring constructs. The Structural Equation Modeling (SEM) was used to test the hypotheses. The results indicated that consumer trust towards retailers was found to be highly significant in creating trust of customers regarding organic food products, followed by information on the label. The trust of consumers towards food manufacturer was also found to be a significant predictor, while the perceived knowledge of customers about organic food products was found to be a weak contributor towards building trust. Furthermore, food-related personality traits were found to mediate the hypothesized model. This study extends the literature on trust in organic food consumption by intending to provide a detailed analysis of the factors that build trust in organic food consumption in China. The findings of this study will help producers, retailers, and marketers to identify the appropriate strategies to establish and improve the consumer trust in organic food.

Keywords: trust; organic foods; food neophobia; food involvement

1. Introduction

The organic food sector has experienced unprecedented growth all around the globe, and a recent research report from the Research Institute of Organic Agriculture FiBL-IFOAM confirms a consistent increase in the volume of the global organic food market [1]. According to Ecovia Intelligence, the global food and beverages sales have reached 90 billion USD, from 15 billion USD over two decades ago [1]. According to data from Biofach China, the sales revenue from the organic food and beverages market in China has reached 1.81 billion USD [2]. Organic farmland has increased by 15% in 2016 globally and the major contribution toward this increase came from Australia, i.e., the addition of 5 million hectares. China also reported a significant increase of 42% in organic farmland in 2016 [1]. The organic market is estimated to be 5.9 billion euros in China, which makes it the fourth biggest market for organic products [1]. There has also been a reported significant increase in the area of organic culture in China, reaching 2.3 million hectares in 2016, compared to 1.61 million hectares in 2015, thus, China occupies the third place in world regarding the area of organic agriculture [1]. Although organic food consumption accounts for only 1.01% of the overall food consumption in China, however, this percentage has grown almost three times since 2007, that is, 0.36% [2]. This heightened boost in the consumption as well production of organic food and beverages has been attributed to intensifying safety concerns of consumers about food consumption. According to a consultancy report from McKinsey, 72% of Chinese consumers have...
concerns about the food they consume, suspecting threats to their health resulting from consumption of food [3]. The Chinese organic food industry has witnessed accelerated growth because a number of food scandals have created severe safety concerns among consumers in China. These food scandals include sale of decayed meat, presence of sewage oil in food, unhygienic pork and beef, and several cases of adulteration and fraud. The largest of all was the melamine scandal, which appeared for the first time in 2008, and then in 2010. These food scandals made food consumption in China very risky and consumers started to search for alternative safe food consumption options which ultimately led consumers toward organic food consumption. The results from a survey conducted by Nielsen exhibit that 40 to 50% of Chinese consumers showed their willingness to purchase natural, organic and sustainable products [4]. Moreover, rapid socioeconomic development in China has led to modernization of agro food production systems. Thus, the Chinese government has promoted industrial agricultural practices by using synthetic chemicals to enhance these production systems and has been very successful. However, due to the lack of awareness among farmers about the proper use of these chemicals, the agricultural products become polluted with chemicals. These malpractices have led to gradual deterioration of health as well as the environment [5]. As a result, the organic food, which is claimed to be free from these chemicals, is getting more popular throughout the world in general and, in China, in particular. In every retail store in China, there is a separate corner for organic foods. The Chinese government paid serious attention to these food-safety concerns and started different projects related to organic food, green food, non-harmful products and good agricultural practices (GAP) which ensures the handling and storage of food with minimal chances of microbial hazard.

It has become mandatory for a producer to obtain an organic label from government authorized certification bodies. Certification and Accreditation Administration of the People’s Republic of China (CNCA) is a government agency responsible for administering the organic accreditation and certification. Further, task of actual implementation of organic certification is carried out by China Quality Certification Center (CQC), which is an affiliate of Administration of Quality Supervision, Inspection and Quarantine (AQSIQ). Although the organic market in China is considered to be in the process of healthy growth it is still undergoing numerous problems however, which include lack of supervision, absence of self-discipline, naive of repute, and competition chaos [6]. The standards observed by CNCA are regarded as stricter than standards being observed in other countries, but still a trust deficit exists in the Chinese organic food market owing to the continuous food safety shocks, for example, use of fake organic raw material by China Kweichow Moutai Co. [7]. Such types of incidents have caused distrust among consumers and their concerns have become serious. The consumption of food is a matter in which one cannot verify that the claims about the food being consumed have been fulfilled or not, therefore, the possibility of consumers’ distrust grows manifold. Consumers exhibit distrust in organic food, expecting that organic food labels can be fake or attained without fulfilling the required standards and, in general, they do not trust in the government’s ability to maintain these standard [8].

However, a study conducted in reference [9] revealed that consumers’ willingness to pay for organic soymilk was highest for those brands which were certified by U.S agencies. Prior literature has established the role of trust in shaping the consumers’ behaviors to purchase the organic food [5,10–14]. However, very few studies focus on factors that can build consumer’s trust in organic food [15]. Based on the above analysis, the objective of this study is to explore the antecedents of trust in organic food consumption in China. Although the organic food market is expected to have a promising future in China, consumers’ distrust in the certification bodies and organic labels, however, create barriers in adoption of organic food consumption. In addition, China is considered a low trust society as compared to the developed world [16,17]. Findings of this study will help producers, retailers and marketers to identify the appropriate strategies to establish and improve the consumer trust in organic food. It may be observed that very little consideration has been given to an in-depth examination of consumer trust in organic food and its influencing factors, with an exception of study conducted in reference [18] which revealed factors like food safety awareness, purchase convenience, evaluation of
government regulation policy etc. were found to be influencing Chinese consumers’ trust in organic milk. Thus, the importance of trust increases many fold for effective marketing of organic food in China. Thus, the main objective of this study is to find out the factors which are responsible for trust building regarding organic food in China. This study extends the literature on trust in organic food consumption by intending to provide a detailed analysis of the factors that build trust in organic food consumption in China. The study also investigates the role of food related personality traits that influence trust in organic food in China.

2. Literature Review and Hypotheses Development

The previous decade has witnessed dramatic growth in the consumption of organic food [19]. This exponential growth in consumption of organic food has attracted numerous researchers to unravel the motives behind consumption of organic food. Previous studies have revealed many socio-psychological determinants of organic food consumption, which include health consciousness, environmental concern, societal concerns and animal welfare consciousness [19–23].

Although sales volume of organic food depicts a heightened interest of consumers in the food that is naturally grown without using pesticides and other harmful chemicals, however, consumers still demand authentic indicators which lessen the risks associated with their consumption of food products [24]. Yue, Liu [25] identified risks that consumers may perceive while consuming organic food and categorized them as risks related to product performance, monetary risks, risks associated with time and service related risks. This perception of risk associated with food consumption highlights the importance of trust in the organic food consumption. The literature has established the role the trust in explaining the food consumption behavior of consumers because it serves as a ‘shortcut’ to deal with a gigantic amount of information to which consumers are exposed to, when they are engaged in purchasing [26]. Further, trust is specifically important in the current case under investigation, because, in the current food industry make up, the consumers have limited information and exposure with production or preparation of food, as well as the relationship with food producers and processors has been diminished [27]. Previous studies in the literature has verified a strong relationship between trust in organic food and purchase intention of organic food [5,13,28,29].

Bearing in mind, the primary role of trust in shaping the consumption intention of organic food consumption, the researchers have not only limited themselves to the investigation of relationship between trust and organic food consumption, but they have also endeavored to disentangle the factors important for building consumer trust in organic food [12,13,30–32]. However, the number of similar studies on Chinese market is limited because organic food market in China is still in its infancy. Although it is growing at a remarkable pace, it is, however, still a very small proportion of the overall food market. The continuously rising food scares are shaking the trust of consumers in organic food products. According to Wu et al. (2014) [8], consumers exhibit distrust in organic food in China and they have doubts in organic food labels. So, the current situation calls for deeper analysis of predictors of trust in organic food consumption in China. Consumers are well aware of the safe food in China but they have inadequate information about the idea of safe food and they cannot identify the relevant labels appropriately [33]. Further, Xie, Wang [34] also found that only 44.8% of the respondents, in Eastern China, were able to define the organic food properly.

Another study conducted by Chen [35] explored three different types of trust, that is, supplier-level, industry-level and general trust, for their influence on consumer perceptions of food safety in China. More recently, Yin, Chen [18] concluded that consumer trust in different brands of organic milk was different in the Chinese market. Further, they found that age, educational level, food safety knowledge, assessment of government regulation policy and purchase convenience are important predictors of trust in organic food. To the best of our knowledge, the literature on antecedents of trust in organic food still lacks detailed investigation. Therefore, this study is aimed at exploring the factors that build trust in organic food.
Trust in the context of food may be defined as “an expression of the alternative to have to make an individual decision, and just assume that food is safe” [36]. Therefore, it was argued that the customer will put every effort, in order to search for options that to reduce the concerns over the food safety [37]. Previous studies have revealed different factors which become a source of trust for consumers. Organic labeling has gained importance as being a tool for building trust in consumers about the quality of food which they are consuming [12]. Numerous studies may be cited which have confirmed the role of certification and labeling in building consumers’ interest in organic food [38,39]. Miller and Cassady [40] concluded that consumers’ knowledge about nutritional value of food under consideration for consumption is linked with frequent use of food labels, which may include nutrition labels, ingredient lists, and health and nutrition claims. Further studies also confirmed that an organic food with a label is considered rich in flavor and more enticing compared to the same product without a label [41,42]. Moreover, it has also been found that products with organic labels are perceived by consumers as healthier in comparison to the products without the organic label [43,44]. Recently, in reference [45] they found the relationship between organic food consumption and subjective well-being may be a result of label effect. Thus, a review of the literature provides a reason to explore the role of revealed information presented in the organic label in building the trust of consumers. Therefore, it is hypothesized that:

Hypothesis 1 (H1). The revealed information on the label of organic food has a significant positive effect on building trust of consumers.

The trust in organic food depends on the level of knowledge of the consumer about organic food, which means that more knowledgeable consumers will trust more in organic food products [31,32]. Following reference [46], this study defines perceived knowledge of consumers about organic food as “consumers’ knowledge of organic food quality and related understanding.” There are several studies arguing that the knowledge of consumers about organic food has positive impact on purchase intention, as well as their attitude [47–49]. Cheung, Lau [50] concluded that organic food knowledge is one of the important factors which have an influence on the attitude of consumers, in Taiwan, toward organic food consumption. Similarly, another study confirms the role of organic food knowledge in shaping the purchase intention of generation Y, toward organic food in Malaysia [51]. The knowledge of consumers about organic food is considered to be the critical factor in building trust among consumers [52]. The knowledge of consumers about organic food reduces their uncertainty, and helps to improve their understanding, about organic food [31]. Therefore, based on the above discussion, in the current study it is expected that the perceived knowledge of consumers about organic food is a significant predictor of trust in organic food. Thus, the next hypothesis may be formulated as:

Hypothesis 2 (H2). The perceived knowledge of consumers about organic foods has a significant positive effect on the trust building of consumers.

The consumers’ trust in retailers has a significant influence on their purchase intention and commitment [53]. The organic food industry has gradually shifted its focus from customized sales stores to large supermarkets [54]. Thus, retailers are a critical variable that moderates the assessment of organic products (Brenna Ellison et al., 2016) [41]. The consumer trust in retailers, in the context of organic food, has been referred as the confidence that consumers have in retailers regarding quality of products [55]. There was an absence of trust in organic food retailers because consumers were not confident about the components of organic food [56–59]. Trust of consumers in retailers of organic food is a source to lessen the sense of uncertainty with respect to organic food traits, such as its composition, taste, and health-concerned characteristics [55]. Aertssens, Verbeke [60] concluded that consumer perception about retailers may be improved through enhanced availability of organic products, and it may lead to enhanced trust. Thus, it may be proposed that trust in retailers also helps in building the trust of consumers on organic food. So, it is postulated that:
Hypothesis 3 (H3). The trust of consumers in retailers has a significant positive effect on building consumer’s trust in organic food.

The consumers sometime do not trust retailers but may trust the source of the product i.e., the manufacturer or producer of the product. As mentioned earlier, in the present scenario, the food industry has been configured in a way that consumers have a small amount of information about the process of food preparation as well as the relationship between consumer and producer has been weakened [27]. Therefore, consumers may even have doubts in the claims which are made by organic food producers regarding quality, taste, naturalness, health related and environmental benefits. In the current era, food producers have attempted to gain the trust of consumers through the development of a brand and advertising it in a manner that creates a customized and peculiar image of the product in the mind of consumers. Thus, in this study the consumer trust in brands has been incorporated as a proxy for consumer trust in manufacturers of organic food. There are a plethora of studies that deal with the significant role of brands in shaping the food consumption behavior of consumers in general [61,62]. Ding et al. (2011) [22] found that trust in food manufacturers contributes positively to the trust development in genetically modified food products. The trust in retailers, producers, farmers and regulating bodies can serve as trust in organic food [30]. The trust in food producers is directly related to safety perceptions of the organic food [35]. However, only a few studies have investigated the role of brand in shaping the organic food consumption behavior [63]. Therefore, it is interesting to explore the role of trust in brand (manufacturer) in building trust in organic food in the case of Chinese society which has transformed into a brand conscious society in the previous few decades. Thus, it is hypothesized that:

Hypothesis 4 (H4). The trust of consumers in manufacturers has a significant positive effect on trust building in organic food.

Food consumption behavior has always been an intricate subject because there are numerous factors which may have an influence on the decision making process of consumers [64]. An individual’s personality is regarded as an important element which has a significant influence on shaping the behavior of individuals to the point that personality traits symbolize stable characteristics that can affect individuals’ actions in various settings [65–69]. More specifically, Keller and Siegrist [70] concluded that an individual’s personality might have a significant contribution in shaping food choices. In previous literature on food consumption, studies may be found which have focused on exploring the relationship between an individual’s personality and eating and dietary patterns, and the relationship between an individual’s personality and choice for organoleptic traits of food [71–80]. Grebitus, Steiner [28] concluded that an individual’s personality is a decisive factor in shaping consumer’s willingness to pay for organic versus conventional tomatoes. Thus, in the current study the role of food related personality traits is being explored for their possible mediation in the independent and dependent variables.

The current strand of research aims to explore the role of food related personality traits of food neophobia and food involvement, as mediators between the independent variables and dependent variable. The food neophobia has been defined as “the extent to which consumers are reluctant to try novel foods” [81]. The personality trait of food neophobia has already been used to measure the level of willingness to try some novel food products [82]. There are numerous studies which have investigated the role of food neophobia in forming consumption intention for a specific food in various backgrounds and settings. For instance, food neophobia has been explored frequently in determining the tourists’ dining choices and it turned out to be a barrier in consumption of local food products by the tourists [83–89]. In the same vein, food neophobia has been investigated in the context of organic food consumption and it was found to have a moderating effect in the relationship between some of the food choice motives and consumer attitudes toward organic food [90]. Based on the above evidences present in the literature on food consumption motives, food neophobia is expected to mediate the relationship between independent and dependent variables. So, it is hypothesized that:
Hypothesis 5 (H5). Food neophobia partially mediates the relationships between revealed information, perceived knowledge, retailer trust, manufacturer’s, and supplier’s trust, with trust in organic food.

The next food related personality trait under investigation is food involvement. The food involvement measures the level of involvement of the consumer while acquiring, purchasing, using and disposal of the food products [91]. Food involvement has been explored in various contexts in the case of food consumption [92-97]. Consumers with high food involvement were found to make better judgment among food items in their sensual assessments and hedonic rankings [93]. Highly involved consumers show “healthy behavior” as compared to consumers with low involvement [98]. More recently, food-related motivation may compensate for poor numeracy skills when dealing with nutrition labels [92]. As organic food is well known for its health-related implications, it is therefore expected that consumers with high food involvement will be more inclined towards organic food consumption. In the context of organic food consumption, the study conducted by Mei-Fang Chen (2007) [88] revealed that food involvement moderates the relationship between some of the food choice motives and consumers’ attitudes toward organic food. Based on the discussion, food involvement is highly relevant in the context of organic food consumption because organic food is considered as a healthy and environmentally friendly alternative to conventional food. So the next hypothesis may be postulated as:

Hypothesis 6 (H6). Food involvement partially mediates the relationships between revealed information, perceived knowledge, retailer trust, and manufacturer’s trust, with trust in organic food.

3. Methodology

The quantitative data was collected from Liaoning Province of People’s Republic of China using a structured questionnaire. The validated scales were adopted and then adapted to measure various constructs. The “Revealed Information” was measured on a scale developed by Doll and Torkzadeh [99]. The “Perceived Knowledge” was measured by using the scale developed by Chen [100]. The Trust was measured by using scales items from Krystallis and Chryssohoïdis [101] and Siegrist [102]. The consumer trust on retailer trust and consumer trust on food manufacturers was measured by using the scale developed by De Jonge, Van Trijp [30]. The “Food Neophobia” and “Food Involvement” were measured based on the scale developed in reference [81], Bredahl, Grunert [103] and Bell and Marshall [93] respectively. The response was measured on a seven-point Likert scale. The proposed conceptual model is given in Figure 1.

![Conceptual framework](image_url)

Figure 1. Conceptual framework.
The questionnaire was developed in English and then translated into Chinese with the help of researchers. The semantic equivalence was ensured while translating the questionnaire from English to Chinese language [104]. The convenience and simple random sampling technique were used. The questionnaire was uploaded on online data collection software, and the link of the questionnaire was sent to the respondents through email, official email groups and social media tools like wechat and qq. The questionnaire was sent to almost 650 respondents and got 420 responses showing a response rate of 64.61%, out of which 405 responses were used for statistical analysis. The descriptive analysis reveals the demographic characteristics of the respondents as 49% male and 51% female. The respondents’ education level was 26.5% bachelors, 52.8% masters and 20.7% PhDs or PhD Scholar.

The Statistical Package for Social Science (SPSS) and Analysis of a Moment Structures (AMOS) were used to analyze the data. The reliability was checked for each construct, and values of cronbach’s alpha were above 0.7 cutoff level as suggested by Hair, Black [105]. The convergent validity was checked through composite reliability which were acceptable as between the range of 0.854 to 0.926. The factor loadings of the items range from 0.70 to 0.88. The average variance extracted values range from 0.595 to 0.664.

The two-step approach was followed as suggested by Hair, Black [105]. First, the measurement model and then the structural model was analyzed to test the hypotheses through AMOS. The detailed values can be found in Table 1. The model fit indices for measurement model were GFI 0.91, AGFI 0.88, TLI 0.94, CFI 0.86 and RMSEA 0.062. For the structural model, the goodness of fit indices was AGFI = 0.91, NFI = 0.94, CFI = 0.95 whereas, RMSEA = 0.048. All these values show a good fit for the measurement and structural models (see e.g., [106,107]). The mediating effect was tested through the Baron and Kenny approach as well as through bootstrapping for robustness.

Table 1. Reliability and Validity Measures.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Factor Loadings</th>
<th>Items</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>RI 1</td>
<td>0.70</td>
<td>Organic labeling provides correct information on organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RI 2</td>
<td>0.73</td>
<td>Organic labeling provides timely information on organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RI 3</td>
<td>0.79</td>
<td>Organic labeling provides sufficient information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RI 4</td>
<td>0.79</td>
<td>I am satisfied with the information that organic labeling provides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK 1</td>
<td>0.83</td>
<td>I’m personally very knowledgeable about organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK 2</td>
<td>0.70</td>
<td>The average person in China is very knowledgeable about organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK 3</td>
<td>0.75</td>
<td>The government is very knowledgeable about organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PK 4</td>
<td>0.85</td>
<td>Science is very knowledgeable about organic foods</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT 1</td>
<td>0.83</td>
<td>Food retailers have sufficient knowledge and skills to guarantee the safety to food products</td>
<td>0.88</td>
<td>0.88</td>
<td>0.61</td>
</tr>
<tr>
<td>RT 2</td>
<td>0.79</td>
<td>Food retailers always comply with the regulations related to food safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT 3</td>
<td>0.75</td>
<td>Food retailers are concerned about the safety and health of consumers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT 4</td>
<td>0.77</td>
<td>If I were to encounter any problems with food quality or safety, food retailers can handle the problems promptly and fairly</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT 5</td>
<td>0.77</td>
<td>Food retailers are honest about the safety of food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MT 1</td>
<td>0.83</td>
<td>Food producers have sufficient knowledge and skills to guarantee the safety to food products</td>
<td>0.90</td>
<td>0.90</td>
<td>0.65</td>
</tr>
<tr>
<td>MT 2</td>
<td>0.77</td>
<td>Food producers always comply with the regulations related to food safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MT 3</td>
<td>0.75</td>
<td>Food producers are concerned about the safety and health of consumers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MT 4</td>
<td>0.83</td>
<td>If food producers found to have hidden safety problems in food production, food producers can take the initiative to recall the products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MT 5</td>
<td>0.84</td>
<td>Food producers are honest about the safety of food</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1. Cont.

<table>
<thead>
<tr>
<th>Construct</th>
<th>Factor Loadings</th>
<th>Items</th>
<th>α</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FI 1</td>
<td>0.81</td>
<td>Cooking or barbequing is not much fun.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FI 2</td>
<td>0.83</td>
<td>Talking about what I ate or am going to eat is something.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FI 3</td>
<td>0.83</td>
<td>I like to do When I travel, one of the things I anticipate most is eating.</td>
<td>the food there</td>
<td>0.92</td>
<td>0.92</td>
</tr>
<tr>
<td>FI 4</td>
<td>0.88</td>
<td>I do most or all of the clean up after eating.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FI 5</td>
<td>0.78</td>
<td>I enjoy cooking for others and myself.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FI 6</td>
<td>0.81</td>
<td>I do most or all of my own food shopping.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FI 7</td>
<td>0.79</td>
<td>I care whether or not a table is nicely set.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FN 1</td>
<td>0.79</td>
<td>I am constantly sampling new and different foods.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FN 2</td>
<td>0.77</td>
<td>I do not trust new foods.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FN 3</td>
<td>0.88</td>
<td>If I do not know what is in a food, I won’t try it.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FN 4</td>
<td>0.88</td>
<td>I am afraid to eat things I have never had before.</td>
<td></td>
<td>0.90</td>
<td>0.90</td>
</tr>
<tr>
<td>FN 5</td>
<td>0.81</td>
<td>I will eat almost anything.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T 1</td>
<td>0.83</td>
<td>The food industry is very knowledgeable about organic foods.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T 2</td>
<td>0.75</td>
<td>I trust those who sell certified organic foods indeed sell quality organic foods.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T 3</td>
<td>0.87</td>
<td>I trust a quality organic food label or logo.</td>
<td>0.87</td>
<td>0.87</td>
<td>0.63</td>
</tr>
<tr>
<td>T 4</td>
<td>0.73</td>
<td>I trust the institutions certifying organic food products.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: RI. Revealed Information; PK. Perceived Knowledge; RT. Retailer Trust; MT. Manufacturer Trust; FI. Food Involvement; FN. Food Neophobia; T. Trust.

4. Results

The results reveal that retailer trust was a significant contributor towards building the trust of consumers on organic food with an estimate value of 0.22. The information provided on the label as revealed information was also found to be a significant contributor towards building trust of consumers on organic food with an estimate value of 0.21. The knowledge consumers possess found to be a weak but significant predictor of trust in organic food with an estimate value of 0.16. The food manufacturers’ trust was also found to be significant in building trust in organic food with an estimate value of 0.20. The path coefficients and significance values can be found in Table 2 and Figure 2. The mediating role of food-related personality traits were analyzed through Baron and Kenny’s approach (Baron and Kenny 1986) [106] by direct effect without mediator and indirect effect with the mediator (Table 3) and Figure 3. Results reveal that food-related personality traits partially mediate throughout the whole model which means that food-related personality traits were found to play an important role in the trust building of consumers in organic food products.

Table 2. Path coefficients and hypotheses testing.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
<th>Estimate</th>
<th>Significance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>The revealed information on the organic food label impacts positively on building trust of consumers on organic food products.</td>
<td>0.21</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>The perceived knowledge of consumers is positively related to trust building of consumers about organic food.</td>
<td>0.16</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>Retailer trust positively impact on building consumer trust in organic food products.</td>
<td>0.22</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H4</td>
<td>The food manufacturer trust significantly impacts on the trust building in organic food products.</td>
<td>0.20</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H5, 6</td>
<td>Food related personality traits partially mediate the relationship between revealed information and trust.</td>
<td>0.16</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H5, 6</td>
<td>Food related personality traits partially mediate the relationship between perceived knowledge and trust.</td>
<td>0.10</td>
<td>0.014</td>
<td>Supported</td>
</tr>
<tr>
<td>H5, 6</td>
<td>Food related personality traits partially mediate the relationship between retailer trust and trust.</td>
<td>0.17</td>
<td>0.001</td>
<td>Supported</td>
</tr>
<tr>
<td>H5, 6</td>
<td>Food related personality traits partially mediate the relationship between food manufacturer’s trust and trust.</td>
<td>0.15</td>
<td>0.001</td>
<td>Supported</td>
</tr>
</tbody>
</table>
Table 3. Mediation analysis.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Direct without Mediator</th>
<th>Direct with Mediator</th>
<th>Indirect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revealed Personality traits Trust</td>
<td>0.21 ***</td>
<td>0.16 ***</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>Perceived Personality traits Trust</td>
<td>0.16 ***</td>
<td>0.10 **</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>Retailer Personality traits Trust</td>
<td>0.22 ***</td>
<td>0.17 ***</td>
<td>Partial Mediation</td>
</tr>
<tr>
<td>Food Manufacturer Personality traits Trust</td>
<td>0.20 ***</td>
<td>0.15 ***</td>
<td>Partial Mediation</td>
</tr>
</tbody>
</table>

Significance Level: 0.001 ***, 0.05 **, 0.01 *.

![Figure 2. Structural Model without mediator.](image)

5. Mediation Analysis

The mediation effect of food-related personality traits was first checked through Baron and Kenny’s approach [108] and found partial mediation effect (Table 3). Second, the mediation effect of food-related personality traits was ensured using bootstrapping approach and significance values are given below. The Table 4 clearly shows that food-related personality traits partially mediate in the model. The constructs were individually checked through two traits separately. The revealed information was checked, first through food neophobia and then through food involvement; and both were found to have partial mediation effect between revealed information and trust. The same partial mediation effect of both personality traits was observed between all other variables with trust.

Table 4. Bootstrapping results.

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Significance Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revealed information → Food Neophobia → Trust</td>
<td>0.035</td>
</tr>
<tr>
<td>Revealed information → Food Involvement → Trust</td>
<td>0.009</td>
</tr>
<tr>
<td>Perceived Knowledge → Food Neophobia → Trust</td>
<td>0.007</td>
</tr>
<tr>
<td>Perceived Knowledge → Food Involvement → Trust</td>
<td>0.10</td>
</tr>
<tr>
<td>Retailer Trust → Food Neophobia → Trust</td>
<td>0.003</td>
</tr>
<tr>
<td>Retailer Trust → Food Involvement → Trust</td>
<td>0.006</td>
</tr>
<tr>
<td>Food Manufacturer Trust → Food Neophobia → Trust</td>
<td>0.005</td>
</tr>
<tr>
<td>Food Manufacturer Trust → Food Involvement → Trust</td>
<td>0.007</td>
</tr>
</tbody>
</table>
The current study was aimed at determining the factors responsible for building consumers’ trust in organic food. In the previous literature, numerous studies may be found which have verified a strong relationship between consumers’ trust and organic food purchase intentions and behaviors [12–14]. However, very little attention has been paid to the factors which are responsible for building consumers’ trust in organic food [18]. Therefore, the major contribution of the study lies in exploring the antecedents of consumers’ trust in organic food consumption, as insights into these factors will be valuable in establishing and improving trust in organic food. The findings revealed that information on the label of organic food consumption is a significant antecedent of consumers’ trust in organic food. This finding lends support to previous studies [52,109], which have established a relationship between organic label and trust in organic food. However, this study is contradictory to the results of the study conducted in reference [32], where it has been argued that most of the consumers believe that the label of organic food may be put on certain products to charge higher prices only. However, the finding from this current strand of research may be based on the notion that health conscious consumers tend to rely on heuristic cues to make decisions concerned with health, and an organic label has been regarded as a strong heuristic cue [110]. Moreover, it has been observed that the organic label is perceived by consumers as a symbol of quality [111]. Therefore, an organic label, with correct and appropriate information, may be considered as a means through which the problem of information asymmetry, between suppliers and consumers, is addressed [112]. Thus, it may be concluded that organic food with a label, containing proper information, is being regarded as a reliable food choice and organic labeling is a greater source of consumers’ trust in organic food [15,113]. Further, the perceived knowledge of consumers was found to be a significant predictor of trust in organic food. This finding is in alignment with findings of the previous studies [47–49], which have verified the relationship between knowledge of consumers about organic food and organic food consumption intention, as well as attitude. It does also coincide particularly with the findings of the study conducted in reference [52], whereby knowledge of consumers about organic food turned out

**Figure 3.** Structural model with mediators.

**Model Fit Values:** GOFI: NFI 0.98, TLI 0.745, CFI 0.988, RMSEA 0.063, GFI 0.995, AGFI 0.874.

6. Conclusions and Discussion

The current study was aimed at determining the factors responsible for building consumers’ trust in organic food. In the previous literature, numerous studies may be found which have verified a strong relationship between consumers’ trust and organic food purchase intentions and behaviors [12–14]. However, very little attention has been paid to the factors which are responsible for building consumers’ trust in organic food [18]. Therefore, the major contribution of the study lies in exploring the antecedents of consumers’ trust in organic food consumption, as insights into these factors will be valuable in establishing and improving trust in organic food. The findings revealed that information on the label of organic food consumption is a significant antecedent of consumers’ trust in organic food. This finding lends support to previous studies [52,109], which have established a relationship between organic label and trust in organic food. However, this study is contradictory to the results of the study conducted in reference [32], where it has been argued that most of the consumers believe that the label of organic food may be put on certain products to charge higher prices only. However, the finding from this current strand of research may be based on the notion that health conscious consumers tend to rely on heuristic cues to make decisions concerned with health, and an organic label has been regarded as a strong heuristic cue [110]. Moreover, it has been observed that the organic label is perceived by consumers as a symbol of quality [111]. Therefore, an organic label, with correct and appropriate information, may be considered as a means through which the problem of information asymmetry, between suppliers and consumers, is addressed [112]. Thus, it may be concluded that organic food with a label, containing proper information, is being regarded as a reliable food choice and organic labeling is a greater source of consumers’ trust in organic food [15,113]. Further, the perceived knowledge of consumers was found to be a significant predictor of trust in organic food. This finding is in alignment with findings of the previous studies [47–49], which have verified the relationship between knowledge of consumers about organic food and organic food consumption intention, as well as attitude. It does also coincide particularly with the findings of the study conducted in reference [52], whereby knowledge of consumers about organic food turned out
to be a crucial factor in building consumer’s trust in organic food. The reason may be that people do not have proper knowledge about organic food, as the organic food market in China is still at a stage of infancy and there may be a lack of awareness among consumers about organic food and its attributes. It seems that consumers get information and knowledge through the label or from discussion groups or experiences. However, authentic information dissemination regarding organic food seems to be missing both at the government level as well as in the private sector. The trust in retailers was also found to be a significant determinant of trust in organic food and this finding is aligned with reference [55]. In the current study, the trust in retailers was found to be the most significant contributor towards building consumers’ trust in organic food. This finding seems quite logical because, in the case of absence of sufficient information about the product they are looking for; most of the consumers would certainly prefer to shop from a trust-worthy retailer. The trust in the retailer can be established because of previous experiences with that particular retailer. Therefore, in the traditional market system, it is a practice that individuals suggest to others about making purchases from the particular retailer in which they have trust, which continues from generation to generation. Further, the trust in food manufacturers was also found to be significantly associated with building consumers’ trust in organic food and this finding supported the findings of Chen [35]. This finding makes sense, because the consumer perception about a particular brand, coming from a particular manufacturer or producer, has a greater impact on the purchase decision. The nature of organic food is such that claims about being organic cannot be verified by the consumers; therefore, consumers give reasonable consideration to the source of the product. Hence, it may be concluded that trust in food manufacturers or producers is a source of trust in organic food.

It was also found that food-related personality traits mediate the relationship of revealed information, perceived knowledge, retailer trust and food manufacturer trust with trust in organic food. Both traits of “Food Neophobia” and “Food Involvement” were found to have mediation effect in the hypothesized model. Food neophobia measures the reluctance of a consumer to try a new innovative food product or recipe. Therefore, if a customer has a high tendency to try new products, then he/she probably will trust more than a customer who has lower tendencies to buy new food products. Thus, high food neophobia consumers will trust less than the low food neophobic customers. The second personality trait was food involvement, which shows the concern of a customer that how much he/she is involved in purchasing the product. The more involved customer can look for more information and can trust easily, compared to a customer who is less involved in the purchase of a product. As such, more involved customers were found to show healthy behavior or be more conscious about his/her health [98].

7. Implications

The study has several managerial implications for the development of effective strategies to build trust in organic food. Firstly, the label information seems to be an effective antecedent of building trust in organic food products. Therefore, providing relevant information on the label, such as differentiating organic products from conventional products in terms of production, handling and storage, etc. will help in building the trust of consumers. Further, printing of logos from government authorized certification bodies will enhance consumer trust in organic food. In addition, it is important to note that labels entailing sufficient, appropriate and correct information may help suppliers to communicate the benefits and credibility of organic products.

Secondly, retailer trust was found to be a significant factor in building trust of consumers in organic food products. As such, retailers can get the benefits out of this trust and can display organic food products in a way to attract customers. Furthermore, trust in food manufacturers was also found to be a significant contributor towards building trust in organic food products. This finding can help food manufacturers in their brand extension strategies. A conventional food manufacturer who is perceived trustworthy by the consumers can get the benefit out of this trust and can go for product line extension strategy. Furthermore, the consumer knowledge about organic food also has an impact on
building trust in organic food. However, it was found to be the weakest contributor towards trust in organic food. This may be because the organic concept is at nascent stage and many customers are not aware of this concept. Consumers’ knowledge about organic food is based on shared experiences by other people or maybe online blogs, which cannot be considered as an authentic source of information. Therefore, trust-worthy information should be provided by government or organic certification bodies to increase the knowledge of customers about organic food products which, in turn, leads to improved trust. Finally, the current study establishes the role of food-related personality traits in building the trust of consumers about organic food products. To attract high neophobic customers, the novelty of the organic products should be established by differentiating organic products from conventional products which in turn leads to building trust. Highly involved consumers must be interested to have authentic and relevant information about organic food products so providing relevant information can attract these consumers.

8. Limitations

Although the current study offers important implications for the producers, marketers, retailers, suppliers and government policy makers, it has still several limitations. Starting with the first, the current data was collected from the Liaoning province of China, so studies can be expanded in future by collecting data from the different provinces to have more representation of the population.

Further, the convenient and random sampling technique was used, whereas the probability sampling technique ensures more accuracy. In addition, the income was the only criteria used to identify the middle class so, in future studies other classes may be included.

Moreover, the use of the questionnaire for data collection also contains doubts regarding the credibility of responses. Further, the responses may be inaccurate due to low knowledge and awareness about organic food in the Chinese society.

In China, social media seems to have more penetration and is perceived as trustworthy because almost every customer buys products online from different websites. In future, studies can also be planned to explore the impact of online platforms in building trust in organic food. Further, the study can also examine the role of commercial actors of social media in creating the trust of consumers towards organic food.

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