

Working Paper 2023.2.1.20 - Vol 2, No 1

# ẢNH HƯỞNG CỦA NHẬN THỨC GIÁ TRỊ, NHẬN THỨC RỦI RO TỚI Ý ĐỊNH TIÊU DÙNG THỰC PHẨM HỮU CƠ TẠI VIỆT NAM

Phạm Thị Hà<sup>1</sup>

Sinh viên K60 Quản trị kinh doanh – Khoa Quản trị kinh doanh Trường Đại học Ngoại thương, Hà Nội, Việt Nam

## Đặng Thị Hằng

Sinh viên K60 Kế toán Kiểm toán – Khoa Kế toán Kiểm toán Trường Đại học Ngoại thương, Hà Nội, Việt Nam

## Nguyễn Thị Xuân Mùi

Sinh viên K60 Tài chính quốc tế – Khoa Tài chính ngân hàng Trường Đại học Ngoại thương, Hà Nội, Việt Nam

## Thân Thị Thu Phương

Sinh viên K60 CLC Tiếng Trung thương mại – Khoa Ngôn ngữ Trung Quốc Trường Đại học Ngoại thương, Hà Nội, Việt Nam

## Nguyễn Hoài Nam

Sinh viên K56 Quản trị kinh doanh – Khoa Quản trị kinh doanh Trường Đại học Thương Mại, Hà Nội, Việt Nam

## Phan Thị Thu Hiền

Giảng viên Khoa Kế toán Kiểm toán Trường Đại học Ngoại thương, Hà Nội, Việt Nam

## Tóm tắt

Dữ liệu được thu thập từ 206 người tiêu dùng chủ yếu trên địa bàn Hà Nội nhằm chỉ ra ảnh hưởng của nhận thức giá trị, nhận thức rủi ro tới ý định tiêu dùng thực phẩm hữu cơ của người tiêu dùng Việt Nam. Bằng phương pháp PLS-SEM, ảnh hưởng tích cực của nhận thức giá trị và ảnh hưởng tiêu cực của nhận thức rủi ro tới ý định tiêu dùng thực phẩm hữu cơ của người

<sup>&</sup>lt;sup>1</sup>Tác giả liên hệ, Email: k60.2114210031@ftu.edu.vn

dân đã được chỉ ra. Trên thực tế, khi người tiêu dùng nhận thức được những giá trị mà việc tiêu dùng thực phẩm hữu cơ đem lại là tốt cho bản thân, gia đình, ý định tiêu dùng loại thực phẩm này của họ sẽ càng được nâng cao. Ngược lại, nếu họ nhận thấy được những rủi ro của các loại thực phẩm hữu cơ, ý định tiêu dùng của họ sẽ bị suy giảm. Bên cạnh đó, vai trò điều tiết của biến Xu hướng cũng được tìm ra trong nghiên cứu này. Khi tiêu dùng thực phẩm hữu cơ trở nên phổ biến, ý định tiêu dùng thực phẩm hữu cơ của người tiêu dùng cũng sẽ được nâng cao. Dựa trên kết quả nghiên cứu, các doanh nghiệp thực phẩm có thể tham khảo để đưa ra những định hướng mới trong tương lai hoặc các nhà nghiên cứu sau có thể nghiên cứu lặp lại để kiểm tra kết quả nghiên cứu.

**Từ khóa:** Lý thuyết xác nhận kỳ vọng, nhận thức giá trị, nhận thức rủi ro, thực phẩm hữu cơ, ý định tiêu dùng.

## IMPACT OF PERCEIVED VALUE AND PERCEIVED RISK ON PURCHASE INTENTION OF ORGANIC FOOD IN VIETNAM

#### Abstract

This study aims to identify impact of perceived value, perceived risk on purchase intention of organic food of Vietnamese consumers. Data is obtained from 206 consumers, especially in Ha Noi. The reliability of measures and model testing were tested by using Cronbach's Alpha coefficient, measurement model, and structural model. Based on PLS-SEM method, positive impact of perceived value and negative impact of perceived risk on intention of organic food consumption of Vietnamese consumers is found through expectation, confirmation and satisfaction. In fact, if consumers realize values of organic food consumption for themselves and their families, intention of organic food consumption, intention of organic food consumption will be decreased. In addition, a moderating role of trend is also found in this study. With the popularization of organic food consumption, consumers' intention to consume organic food will also increase. Finally, food companies can use research's results to determine their new strategy in the future, or researchers can re-study to verify the research's results.

**Keywords**: expectation - confirmation theory, organic food, perceived value, perceived risk, purchase intention.

#### 1. Introduction

In recent years, food hygiene has always been a concern for the whole society. There have been many food poisoning incidents in Viet Nam, specifically: according to a report of the Ministry of Health, there are 54 food poisoning cases resulting in 1,359 people who get food poisoning, of which 18 died (Trang, 2022). As a result, health protection is at the forefront of consumers; so the consumption of clean and healthy foods has increased, leading to the consumption of organic foods.

Retail sales from organic food have truly reflected the growth of this food consumption trend in the world. In 2000, sales from the organic agriculture market reached only \$18 billion. However, in 2018, it had increased about 6 times, exceeding \$100 billion. This indicates the rapid growth of this new market. According to the latest data released by the

Institute for Organic Agriculture (FiBL) and the Global Organic Organization IFOAM, in 2021, the market size reached 125 billion Euros, which is nearly 4 billion euros (about 3%) increasing from 2020. In which, with 48.6 billion euros, the U.S. holds the position of the world's leading market, following by Germany (15.9 billion euros) and France (12.7 billion euros). On average, Swiss spends about 425 Euros on organic food. This is the world's largest consumer of this product. The consumption of organic food has also grown tremendously in Denmark with 13 percent of organic food market share. It is the highest in the world, following by Australia (11.6 % and Luxembourg (11%) (Helga Willer, 2023).

According to Kamiński, 2021, organic food is defined as food produced using organic farming methods, which include the use of natural inputs such as compost and cover crops, and the exclusion of pesticides and synthetic fertilizers. Organic foods are also subject to strict regulations regarding modified genetics and antibiotic use in animal agriculture. In Viet Nam, revenue is estimated to be over 2 million Euros (2014), but in the next 2 years, it has increased into 18 million Euros (2016) (Helga Willer, 2023). Compared to other organic food markets around the world, it is still small. However, the two-year growth rate has shown an increasing trend of demand for this food and the potential for the organic food market in Vietnam. The trend of organic food consumption is a new but it is a thriving trend, which has attracted researchers. Many studies have been conducted in Viet Nam about the intention of organic food consumption. They commonly mentioned factors: price, attitude, beliefs, environmental knowledge, health, etc; but there is few studies about the impact of perceived value and perceived risk. Therefore, our study aims to add two factors that impact on purchase intention of organic food. At the same time, this study also provides the basis for enterprises to develop effective business strategies and the government to make appropriate policies to promote the development of this potential market.

#### 2. Theoretical framework

#### 2.1. Perceived value theory



Figure 1. Perceived Value Model Source: Sweeney and Soutar (2001)

Studies have shown that perceived value is the main factor affecting consumer's buying attitude (Kim, Woo and Nam 2018). Perceived value refers to the consumer's overall assessment of a product's utility and it is based on perceptions of what is received and what is given (Zeithaml, 1988). According to Sweeney and Soutar (2001), perceived value includes quality, emotion, price and social value. Sheth, Newman and Gross (1991) argued that perceived value included functional, social, emotional, and conditional values.

#### 2.2. Perceived risk theory



#### Figure 2. Perceived Risk Model

#### Source: Jacoby and Kaplan (1972)

Perceived risk refers to the nature and degree of risk that consumers perceive when considering a particular purchase decision (Cox and Rich 1964). (Mitchell and Vassos 1997) suggests that because consumers are often more motivated to avoid losses than to maximize utility in their purchases, perceived risk has a strong impact on explaining the behavior of consumers. The consumer's behavior involves risk because the actions of the purchase "will produce consequences which he cannot anticipate with anything approximating certainty and some of which at least are likely to be unpleasant" (Baumer, 1960).

#### 2.3. Expectation - Confirmation theory



Figure 3. Expectation – Confirmation Model

#### Source: Oliver (1977)

The expectation - confirmation theory (ECT) of Oliver R. L. (1977) (Oliver, 1980) posits that expectation, along with perceived performance, affects consumers' satisfaction when they use products and services. This effect is mediated by a positive or negative disconfirmation between expectations and performance. If perceived performance of a product is greater than expected (positive disconfirmation), it will lead to satisfaction. If perceived performance of a product is lower than expected (negative disconfirmation), that can lead to dissatisfaction. In addition, the theory suggests that perceived performance directly affects satisfaction (Oliver, 1980). Finally, satisfaction affects intention or behavior.

#### 2.4. Relationship between health benefit and environmental benefit with social value

With increasing public health awareness, more and more consumers are starting to think about consuming healthy food (Huang et al., 2022). This has also been fueled by an increase in marketing of organic and healthy foods, where many consumers fear being obese. Organic food is grown without the use of synthetic pesticides, fertilizers and other chemicals commonly used in conventional farming. Therefore, organic food is said to be healthier than conventionally farmed food. Choosing organic food is seen as a way of prioritizing personal health and well-being, which is a social value behavior.

Over the past few decades, consumers have become more aware of the environmental impact in their purchasing decisions (Kim and Chung, 2011). By choosing to consume organic food, individuals are contributing to a large movement to protect the environment, which is a socially appreciated behavior.

Thus, it was hypothesized that:

#### Hypothesis 1: Health benefit positively impacts social value.

*Hypothesis 2: Environmental benefit positively impacts on social value.* 

#### 2.5. Relationship between product attribute with perceived quality

Product attributes are the features and uses of a product to satisfy customer needs. To distinguish and identify a product, product attribute plays an important role in the customer evaluation process. In a study of the motivations of organic food buying behavior (Davies, Titterington, and Cochrane 1995) revealed that along with environmental and health-

conscious concerns, safety, quality concerns and purchase motives were also attributed to specific product attributes, such as nutritional value, taste, freshness and price. Nigerian consumers believe that organic food is healthier, tastier, has no harmful effects, and is of better quality than inorganic food (Monroe and Krishnan, 1985). The nutritional properties of organic food have given it a competitive advantage over conventionally produced goods (Michaelidou and Hassan 2010).

Thus, it was hypothesized that:

Hypothesis 3: Product attributes positively impact on perceived quality.

# 2.6. Relationship between emotional appeal, perceived price, perceived quality and social value with perceived value

Emotional value is defined as the feelings or emotions caused by a product or service (Sheth et al., 1991). These emotions (positive or negative) vary in situations and individuals, which can influence consumer behavior. In addition, (Seegebarth, Behrens, Klarmann, Hennings, and Scribner, 2016) considers emotional value as a personal perception of the value of that product. Recent research has shown that these emotional values lead to organic food consumption (Testa, Sarti, and Frey, 2019).

Perceived price is the monetary value of a product that has a significant influence on a customer's decision-making process. High prices have been pointed out as one of the reasons that hinder customers in making purchasing decisions (Perrini et al., 2010). Therefore, perceived price negatively affects perceived value. (Dodds, Monroe, and Grewal, 1991) highlighted the negative effect of perceived price on perceived value.

Perceived quality is conceptualized as "the consumer's judgment about a product's overall excellence or superiority" (Zeithaml, 1988), which affects positively on perceived value (Oxfam, 2002). Many past research studies suggested that perceived quality has a positive impact on perceived value (Grewal et al., 1998; Hartline and Jones, 1996; Teas and Agarwal, 2000; Zeithaml, 1988). (Dodds et al., 1991) defined perceived value as "a cognitive trade-off between perceived quality and sacrifice". Therefore, perceived value is one of the determining factors of perceived value.

Social value is defined as the benefits produced through an individual's association with one or more social groups when choosing a product (Rahnama, 2016). As a result, consumers often tend to consume products that are positively recognized in their social groups and strengthen their social status (Vindigni, 2002). Recent studies have also suggested that social values have a positive influence on consumers' organic food consumption behavior (Khan and Mohsin, 2017).

Thus, it was hypothesized that:

*Hypothesis 4: Positive emotional appeal contributes to higher perceived value, while negative emotional appeal reduces perceived value.* 

Hypothesis 5: Perceived price has an adverse effect on perceived value.

Hypothesis 6: Perceived quality has a direct impact on perceived value.

Hypothesis 7: Social value positively impacts on perceived value.

2.7. Relationship between food neophobia with consumer psychological risk

Neophobia refers to the fear or reluctance to try new, unfamiliar foods (Fischler, 1988), (Pliner and Hobden, 1992). Neophobia reflects a natural human tendency to dislike or be suspicious of novel foods s (Pliner and Salvy, 2006) (Knaapila, et al., 2007) (Dovey, P.A., Gibson, and Halford, 2008). (Asperin, Philips, and Wolfe, 2011) defined Neophobia as a personality trait that exists in every human being, which influences the willingness to try and consume new foods.

Thus, it was hypothesized that:

#### Hypothesis 8: Food neophobia increases psychological risk.

#### 2.8. Relationship between psychological risk and financial risk with perceived risk

Financial risk is defined as the probability of monetary loss associated with the purchase a product (Horton, 1976). Financial composition refers to a customer's net financial loss (Horton, 1976), which includes the possibility of product failure and may require repair or replacement. (Nhung et al., 2023) points out that Vietnamese consumers need a basis to ensure to buy organic products that they accept to pay extra, more expensive than conventional products. However, consumers may be more worried about the risk that the value of organic food is not worth the money they spend.

Psychological risk refers to the concern that purchasing a product will conflict with the consumer's self-image (Kim and Lennon, 2000), which causes frustration or disappointment from that purchase. In other words, it is the possibility that consumers will experience mental stress as a result of their buying behaviors. Thus, psychological risk increases consumers' perceived risk of organic food, making them less inclined to consume organic food.

Thus, it was hypothesized that:

Hypothesis 9: Psychological risk increases perceived risk.

Hypothesis 10: Financial risk increases perceived risk.

#### 2.9. Relationship between perceived value and perceived risk with expectation

Perceived value plays an important role in exchange activities, considering that consumers evaluate the utility of products based on what they receive from what they give (Wu, Chen, Chen, and Cheng, 2014). (Lam, Lau, and Cheung, 2016) see perceived value of green products as the types of benefits or values that consumers can receive from green products compared to what they sacrifice for price and search time to make their purchasing decisions. It also plays an essential role in influencing purchasing intentions, purchasing decisions and actual consumption (Yee, San, and Khoon, 2011) (Zhuang, Cymiskey, Xiao, and Alford, 2010). For green products, (Lam, Lau, and Cheung, 2016) found that perceived value is a positive force of purchase intention.

Perceived risk is related to the expectation of loss from any purchase of organic food (Peter and Ryan, 1976). (Bäckström, Pirttilä-Backman, and Tuorila, 2004) find that people will worry about the risks associated with their food. If consumers have a high perceived risk, they may have lower expectation with the quality and value of organic products, and they tend to stay away from organic products. Therefore, it leads to a decline in the organic food production industry, as consumers lack trust to buy and use organic products.

### FTU Working Paper Series, Vol. 2 No. 1 (11/2023) | 7

Thus, it was hypothesized that:

Hypothesis 11: Perceived value positively impacts on expectation.

Hypothesis 12: Perceived risk negatively impacts on expectation.

#### 2.10. Relationship between expectation with confirmation

If consumers have high expectation for organic products, they will tend to trust and be willing to buy them. However, if consumer's expectation is not met or organic products do not meet quality standards, consumers may lose trust and will have no confidence in organic products.

Thus, it was hypothesized that:

#### Hypothesis 13: Expectation positively impact on confirmation.

#### 2.11. Relationship between confirmation with satisfaction

Liu et al,.(2020) believes that there is positive or negative disconfirmation of customer expectation through the performance of the product or service. With user experience from using the system, thoughts and attitudes can change. Contrary to customer expectation, customer evaluation of performance will affect perceived of expectation – disconfirmation (Liu et al. 2020).

Thus, it was hypothesized that:

Hypothesis 14: Confirmation has a favorable impact on satisfaction.

#### 2.12. Relationship between satisfaction with purchase intention

Satisfaction is the response of the consumer, the measure of satisfaction is pleasant or unpleasant. (Oliver, 2009). (Johnson, 1996) described two basic concepts of satisfaction are specific transactions and accumulation. A particular transaction satisfaction is a momentary assessment of a particular transaction experiencing a product or service, while accumulated satisfaction describes the total consumption experience of a product so far. Consumer satisfaction has been conceptualized on both sides (e.g., emotion) and cognitive response (Westboork and Oliver, 1991).

Purchase intention is considered to be intermediate between satisfaction and actual loyalty (Evanschitzky and Wunderlich, 2006) (Oliver, 2009), and different from repurchase behaviour (Mittal and Kamakura, 2001). A positive association between satisfaction and purchase intention is well established in the literature (Kassim and Abdullah, 2010), (Johnson, Herrmann, and Huber, 2006), (Mazursky and Geva, 1989), (Szymanski and Henard, 2001), (Walsh et al., 2008).

Thus, it was hypothesized that:

Hypothesis 15: Satisfaction has a direct impact on purchase intention.

#### 2.13. Moderating of Trend and Government's food production support work

One reason for consumers buy organic products is the satisfaction of finding new trends in health food products (Roitner-Schobesberger, Darnhofer, and Vogl, 2008); (Sangkumchaliang and Huang, 2012). In this sense, the consumption of organic food has become a trend (Falguera, Aliguer, and Falguera, 2012). Consumers perceived organic food as fashionable (Costa et al., 2014; Petrescu and Petrescu-Mag, 2015) and buy it because it is considered such (Sharma and Singhvi, 2018)

The government can intervene in food production through subsidies in agriculture and preferential policies, as well as by controlling the use of poultry and livestock medicines, fertilizers and pesticides, maintaining and building agricultural land and living environment ecosystems (Scalvedi and Saba, 2018), called "Government's food production support work". If people are satisfied with government support and monitoring of agricultural products, the trust in the production process and quality of organic food is strengthened, which increase the willingness to consume organic food (Chai, Meng, and Zhang, 2022).

Thus, it was hypothesized that:

Hypothesis 16: Trend moderates from expectation to purchase intention.

Hypothesis 17: Government's food production support work moderates the impact from expectation to purchase intention.





Source: Proposed by authors

#### 3. Research method

Based on quantitative method and using the questionnaire to collect data, this study analyzed the data by PLS-SEM method. A survey is conducted with 215 people participating in. From January, 2023 to March, 2023, 206 valid answers were collected, achieving response rate at 95.81%.

In this study, SPSS 20 and SmartPLS 4 are used to test the research model and hypothesis. Firstly, our research uses SPSS to make descriptive statistics of variables and test

the reliability of the scale by Cronbach's Alpha coefficient. Next steps for implementing the PLS-SEM method include measurement model and structural model assessment (Hair et al., 2017). According to Shiau et al (2019), in this case, PLS-SEM method is used because of relatively small sample size. To measure variables in the study model, the scales inherited from previous studies.

| Variable                  | Indicators   | Source of scales          | Encode |  |
|---------------------------|--|---------------------------|--------|--|
| Health Benefit            | <ul><li>HB1. Organic food is beneficial for health.</li><li>HB2. Organic food is produced in natural way.</li><li>HB3. I feel safe as organic food is free from chemical infusions.</li></ul>  | (Sumi and Kabir,<br>2018) | HB     |  |
| Environmental<br>Benefit  | <ul><li>EB1. Organic food is more environment-<br/>friendly.</li><li>EB2. Organic food is produced from<br/>organic manure.</li><li>EB3. Organic food is produced by using<br/>natural pesticides.</li></ul>   | (Sumi and Kabir,<br>2018) | EB     |  |
| Perceived Social<br>Value | <ul><li>SV1. Organic food helps me to feel accepted by others.</li><li>SV2. Organic food improves the way I am perceived.</li><li>SV3. Organic food makes a good impression on other people.</li><li>SV4. Organic food gives me social approval.</li></ul> | (Seegebarth et al., 2016) | SV     |  |
| Product<br>Attributes     | oduct<br>ributes PA1. Organic food is a natural product.<br>PA2. Nutrient value is more in organic<br>food.<br>PA3. Organic food is tastier  |                           | PA     |  |

Table 1. Variable, indicators, source of scales

|                                 | PQ1. I think quality of organic food is superior to traditional   | (Sumi and Vahir  | PQ       |  |
|---------------------------------|---|--|----------|--|
| Perceived<br>Quality            | PQ2. Positive image of organic food inspires me to buy organic food.  | (Sunn and Kaon, 2018)                                    |          |  |
|                                 | PQ3. Organic food is better substitute than conventional food   |  |          |  |
|                                 | PP1. Price of organic food is affordable.   |  |          |  |
| Perceived Price                 | PP2. Less price difference from traditional food.   | (Sumi and Kabir, 2018)                                   | PP       |  |
|                                 | PP3. Paying more for organic food is worthy.  |  |          |  |
|                                 |   |  |          |  |
| Emotional                       | EA1. Organic food helps you cope with stress.   | (Japutra et al.,   |          |  |
| Appeal                          | EA2. Organic food cheers you up.  | 2022)  | Ln       |  |
|                                 | EA3. Organic food makes you feel good.  |  |          |  |
|                                 | PV1 I find positive value in terms of   |  |          |  |
| Porceived Velue                 | benefits and costs of organic food.   | (Sumi and Kabir,   | PV       |  |
| reiteiveu value                 | PV2. High price of organic food creates great value to me.  | 2018)  |          |  |
|                                 | FR1. I believe the value of organic food is more than the money I spend.  |  |          |  |
| Financial Risk                  | 5 1   |  |          |  |
| Financial Risk                  | FR2. I believe the value that organic food<br>brings is worth the money I spend.  | (Herrera and<br>Blanco, 2011)                            | FR       |  |
| Financial Risk                  | <ul><li>FR2. I believe the value that organic food brings is worth the money I spend.</li><li>FR3. I fear the value that organic food brings is not worth the money I spend.</li></ul>  | (Herrera and<br>Blanco, 2011)                            | FR       |  |
| Financial Risk                  | <ul><li>FR2. I believe the value that organic food brings is worth the money I spend.</li><li>FR3. I fear the value that organic food brings is not worth the money I spend.</li><li>FN1. I am constantly sampling new and different foods.</li></ul>   | (Herrera and<br>Blanco, 2011)                            | FR       |  |
| Financial Risk<br>Food Nephobia | <ul><li>FR2. I believe the value that organic food brings is worth the money I spend.</li><li>FR3. I fear the value that organic food brings is not worth the money I spend.</li><li>FN1. I am constantly sampling new and different foods.</li><li>FN2. I do not trust new foods.</li></ul>  | (Herrera and<br>Blanco, 2011)<br>(Ayyub et al.,          | FR<br>FN |  |
| Financial Risk<br>Food Nephobia | <ul> <li>FR2. I believe the value that organic food brings is worth the money I spend.</li> <li>FR3. I fear the value that organic food brings is not worth the money I spend.</li> <li>FN1. I am constantly sampling new and different foods.</li> <li>FN2. I do not trust new foods.</li> <li>FN3. If I do not know what is in a food, I won't try it.</li> </ul> | (Herrera and<br>Blanco, 2011)<br>(Ayyub et al.,<br>2018) | FR<br>FN |  |

|                                 | had before.   |                               |    |  |
|---------------------------------|---|-------------------------------|----|--|
|                                 | FN5. I will eat almost anything   |                               |    |  |
| Physiological<br>Risk           | PS1. I am afraid that my purchase may<br>make me feel uncomfortable.<br>PS2. I am afraid of feeling dissatisfied or | (Fandos and<br>Flavián, 2011) | PS |  |
|                                 | frustrated.   |                               |    |  |
|                                 | PR1. I believe that consuming organic food is risky because it may not live up to my expectations.                  |                               |    |  |
| Perceived Risk                  | PR2. I believe that consuming organic food<br>is risky because the production process<br>may not be standardized.   | (Chang and Chen, 2008)        | PR |  |
|                                 | PR3. I believe that consuming organic food<br>is risky because it can be time consuming<br>to verify the origin.    |                               |    |  |
|                                 | GP1. Supervise the use of livestock and poultry drugs.  |                               |    |  |
| Governments                     | GP2. Supervise the use of pesticides and fertilizers.   |                               |    |  |
| food Production<br>support work | GP3. Protect farmland ecological environment.   | (Ogorevc et al.,<br>2020)     |    |  |
|                                 | GP4. Improve rural living environment.  |                               |    |  |
|                                 | GP5. Support agricultural science and technology research and development.  |                               |    |  |
|                                 | GP6. Agricultural subsidies   |                               |    |  |
| Trond                           | TR1. Organic food is trendy.  | (Japutra et al.,              | TR |  |
| IIChu                           | TR2. Organic food is in fashion.  | 2022)                         |    |  |
|                                 | EX1. If I use organic food, I will get more health benefits than traditional food.                                  | (Alzahrani and                |    |  |
| Expectation                     | EX2. If I use organic food, I feel better.  | Seth, 2021)                   | EX |  |
|                                 | EX3. If I use organic food, I will have less negative impact on the environment than traditional food.              |                               |    |  |

\_\_\_\_

| Confirmation          | <ul><li>CO1. My organic food experience was<br/>better than I expected.</li><li>CO2. Consumption of organic food meets<br/>my expectations.</li></ul>  | (Chen, 2012)        | СО |
|-----------------------|--|---------------------|----|
| Satisfaction          | <ul><li>SA1. I'm interested in organic food.</li><li>SA2. My choice of organic food consumption is right.</li><li>SA3. I will recommend organic food to my family, friends.</li></ul>  | (Chen, 2012)        | SA |
| Purchase<br>Intention | <ul> <li>PI1. I am willing to purchase organic foods if they are available.</li> <li>PI2. I intend to buy organic foods if they are available.</li> <li>PI3. I plan to consume organic foods if they are available for purchase.</li> <li>PI4. I try to consume organic foods if they are available for purchase.</li> </ul> | (Jose et al., 2021) | PI |

Source: Proposed by authors

#### 4. Results

#### **Descriptive statistics**

#### Statistics by age

The results show that the percentage of individuals who are at the age of from 18 to 25 years old comprises the highest level of 67% (equivalent to 138 people). In contrast, the lowest level relates to individuals under 18 years old with 1% (equivalent to 2 people). The distribution rate is different. Individuals under 18 years old do not participate much in the shopping and consumption process because they are relied on their guardians. However, individuals who are at the age of 18 years old and older participate more in the shopping and consumption process, this is reason why they are selected more for our survey.

#### Statistics by income

The results show that the majority of individuals have income under 5 million VND, with a rate of 51%. The second proportion including individuals with their income from 10 to 30 million VND makes up 21.8%, followed by people with income from 5 to 10 million VND (11.7%). Individuals with income from 30 to 50 million VND and income over 50 million VND account for the lowest percentage with 7.3% and 8.3%, respectively. This ratio is

relatively consistent with the age ratio of individuals participating in the survey (from 18 to 25 years old).

#### Assessment of the measurement model

First, the Outer Loading coefficient is considered to eliminate variables that do not guarantee convergence validity (Hair et al., 2019). Based on Henseler et al., (2009), variables with an Outer Loading coefficient being less than 0.7 should be removed from the model because convergence validity is not guaranteed. Table 2's results show that all of variables have minimum Outer Loading coefficient of each item greater than or equal to 0.7. Moreover, average variance extracted (AVE) (Table 2) of all the variables is greater than 0.5; so the scales ensure convergence validity.

|    | Outer Loading (Minimum) | CA    | rho_A | CR    | AVE   |
|----|-------------------------|-------|-------|-------|-------|
| PI | 0.784                   | 0.84  | 0.845 | 0.893 | 0.675 |
| CO | 0.883                   | 0.761 | 0.772 | 0.893 | 0.806 |
| SA | 0.826                   | 0.793 | 0.793 | 0.879 | 0.707 |
| EA | 0.71                    | 0.878 | 0.88  | 0.912 | 0.675 |
| EB | 0.75                    | 0.766 | 0.85  | 0.857 | 0.667 |
| EX | 0.761                   | 0.73  | 0.754 | 0.847 | 0.65  |
| FN | 0.816                   | 0.811 | 0.822 | 0.888 | 0.725 |
| FR | 0.719                   | 0.724 | 0.739 | 0.878 | 0.783 |
| GP | 0.788                   | 0.917 | 0.926 | 0.935 | 0.706 |
| HB | 0.747                   | 0.762 | 0.817 | 0.861 | 0.676 |
| PA | 0.757                   | 0.751 | 0.758 | 0.858 | 0.668 |
| PS | 0.855                   | 0.733 | 0.768 | 0.88  | 0.787 |

Table 2. Outer loading, Cronbach's Alpha, rho\_A, Composite Reliability, AVE

| PP | 0.794 | 0.777 | 0.792 | 0.867 | 0.685 |
|----|-------|-------|-------|-------|-------|
| PQ | 0.831 | 0.786 | 0.79  | 0.875 | 0.7   |
| PR | 0.839 | 0.806 | 0.807 | 0.885 | 0.72  |
| PV | 0.895 | 0.759 | 0.759 | 0.892 | 0.806 |
| SV | 0.837 | 0.877 | 0.879 | 0.916 | 0.731 |
| TR | 0.874 | 0.708 | 0.709 | 0.873 | 0.774 |

#### Source: SmartPLS 4

To examine the reliability, Cronbach's Alpha, rho\_A, Composite Reliability are used (Hair et al, 2019). The results in Table 1 show that these values are in range of from 0.708 to 0.912, ensuring composite reliability of factors (Hair et al, 2019). In addition, this study uses Heterotrait-monotrait Ratio of Correlations (HTMT) with HTMT < 0.9 to assess discriminant vilidity (Henseler et al, 2015). The results show that the heterotrait-monotrait ratio (HTMT) is less than 0.9, so these factors are independent of each other.

#### Structural model assessment

The R-Square coefficient shows that PI, SA, PQ, PV are explained 71.5%, 95%, 73.1%, and 83.2%, respectively. This is a good result because the variables strongly explain variation of PI, SA, PQ, PV. Next, CO, EX, PS, PR, SV are explained 66.2%, 60.9%, 41.4%, 57.1%, 24.2%, respectively, which indicates that these variables relatively explain variation of the above scales.

The research team found that the impacts of EX on CO, CO on SA, and SA to PI were statistically significant because p-value = 0 < 0.05. The impact factors of EX to CO, CO to SA and SA to PI are more than 0, indicating that these impacts are positive impacts. Thus, the research team found that consumer's expectation has an positive impact on consumer confirmation, thereby positively affecting consumer's satisfaction and creating positive impact on people's intention to consume organic food.

The impact of PV and PR on EX has the same p-value as 0<0.05, indicating that these impacts are statistically significant. The impacts factors of PV-to-EX and PR-to-EX are relatively high, equivalent 0.374 and 0.401, respectively, which indicates that these impacts are positive impacts. In fact, when consumers are aware of the values that organic food consumption is good for themselves and their families, their intention to consume this food will be enhanced. In contrast, if consumers have a high perceived risk, they may have lower expectation with the quality and value of organic products, and they tend to stay away from organic products. Therefore, they do not have confidence in purchasing and using organic food.

The impacts of EA, PP, PQ, and SV on PV with p-value of 0.016; 0.00; 0.002 and 0.00<0.05, respectively; so these impacts are statistically significant. The impact factors of these impacts all bear a positive sign, indicating that they all act in the same direction on PV. It can be confirmed that the higher emotional value, perceived price, perceived quality and social value, the higher the consumer's awareness of the intention to consume organic food is also increasing.

In addition, the authors' group also found that PS and FR's impacts on PR with p-value values of 0 and 0.001<0.05, respectively, should be statistically significant. PS's and FR's impact factors on PR are 0.437 and 0.254, respectively, indicating that these were positive impacts. Indeed, financial and psychological risks are two types of risks that consumers encounter when they make a decision to buy a certain product, so it is reasonable that financial and psychological risks increase with the perception of people's risks.

The impact of EB on SV has p-value=0.162>0.05, indicating that the impact is not statistically significant, or EB has no impact on SV. In contrast, the impact of HB on SV has p-value=0<0.05, indicating that the impact is statistically significant. Impact factor is 0.323, with a positive sign, which indicates that this is positive impact. It can be confirmed that, when people are aware that organic food consumption has health benefits for themselves and their families, its social value will also be enhanced.

The impact of the PA on the PQ with p-value=0<0.05 shows statistically significant. The relatively high impact factor, equivalent 0.662, indicates that this is a positive impact. In fact, as consumers identify more product attributes, they increase their awareness of the quality of the product.

Finally, the impact of FN on PS has p-value=0<0.05, indicating this is statistically significant. Impact factor, equivalent 0.551, having a positive and relatively high sign indicates that this is positive impact. The research team found that consumers often experience "new type of food consumption fear syndrome" due to concerns over hygiene and food safety issues, so this "fear" increases with consumer's psychological risk.



Figure 5. Model Reliability Results

#### Source: SmartPLS 4

On the impact of two moderating items on purchasing behavior of organic food consumption, the authors found that the impacts of GP on PI, CO, and SA with p-value were all greater than 0.05, respectively. Therefore, they are not statistically significant. Thus, it can be argued that the Government's Production Support Work has no moderating role to affect consumers' buying of organic food from expectations. However, the impacts of TR on PI, CO, and SA, respectively, have P-values of 0.003; 0.00; 0.00<0.05, respectively, indicating these are statistically significant. Impact factors are 0.255; 0.306 and 0.289, all of which are more than 0, indicating that these are positive impacts, respectively. In summary, TR has the strongest impact on CO. It can be argued that the Trend plays a moderating role in influencing consumers' buying of organic food from expectation.

#### 5. Discussion and Conclusion

Consistent with the proposed hypothesis, the research's results have demonstrated that perceived value have positive impact and perceived risk have negative impact on purchase intention of organic food in Viet Nam through expectation, confirmation and satisfation. This result is relatively consistent with the study of Golob et al., (2018), Wang et al., (2019) when these authors assert the relationship between behaviour and purchase intention of organic food (but they use Theory of Planned Behaviour). This result is also consistent with the reality that if consumers have a high perceived value of organic food, they will have higher expectations for the quality and value of the product.

On the other hand, when consumer perceive risks related to finance and psychology in consuming organic food, their expectations will decrease day by day. In addition, if consumer expectation is not met or organic products do not meet quality standards, consumers may lose truth and will not trust organic products. This can have a negative impact on the organic food production industry and the organic certification industry.

In Viet Nam, purchase intention of organic food is currently more and more popular because of its health benefit and environmental/social value. So, purchase intention is also constantly improved to develop sustainable purchasing.

This study also finds a moderating role of trend on the impact of perceived value and perceived risk on purchase intention of organic food in Viet Nam. When there is a consumption trend, consumers will have expectations of quality and value standards of the products they purchase. If there is a positive consumption trend for organic food, this can impact consumers' organic food purchase intention. Besides, other moderating variable – Government's Production Support Work – is discarded; so in Viet Nam, also in other developed countries and areas such as USA, Europe,..., government do not have policy for oganic food to improve. But in the future, government will have some policies to support it because of its benefits for personal health and environment.

In summary, this research has gained an important place in the theoretical world because of its significant contributions to the social and environmental literature. This study analyzes the impact of perceived value and perceived risk on purchase intention of organic food in Viet Nam through perceived value, perceived risk and expectation - confirmation theory. Since then, food companies can use research as a basis for reference and determine new directions to improve environmental/social value for their businesses, thereby promoting sustainable purchasing. In addition, government can use this research to consider and discuss because of organic food's benefits. Besides, the research has systematically established a solid foundation in both theory and practice for latter studies to inherit and develop about organic food purchasing in Viet Nam in the future.

#### References

Asperin, A. E., Philips, W. J., & Wolfe, K. (2011), "Exploring Food Neophobia and Perceptions of Ethinic Foods: The Case of Chinese and Thai Cuisines", *International CHRIE Conference*.

Baumer, R. A. (1960), "World, Consumer Behavior as Risk Taking - Dynamic Marketing for a Changing World", *American Marketing Association*, pp. 389-98.

Chai, D., Ting, M. & Dong, Z. (2022), "Influence of Food Safety Concerns and Satisfaction with Government Regulation on Organic Food Consumption of Chinese Urban Residents", *Foods*, Vol. 11 No. 19, pp. 29-65.

Chang, H.H. & Su, W.C. (2008), "The Impact of Online Store Environment Cues on Purchase Intention: Trust and Perceived Risk as a Mediator", *Online Information Review*, Vol. 32 No. 6, pp. 818–41.

Chen, Y. (2012), "Why Do Consumers Go Internet Shopping Again? Understanding the Antecedents of Repurchase Intention", *Journal of Organizational Computing and Electronic Commerce*, Vol. 22 No. 1, pp. 38–63.

Cox, D.F. & Stuart, U.R. (1964), "Perceived Risk and Consumer Decision-Making—The Case of Telephone Shopping", *Journal of Marketing Research*, Vol. 1 No. 4, pp. 32–39.

Davies, Anne, Albert J. Titterington, & Clive Cochrane. (1995), "Who Buys Organic Food? A Profile of the Purchasers of Organic Food in Northern Ireland", *British Food Journal*, Vol. 97 No. 10, pp. 17–23.

Dodds., William, B., Kent, B., Monroe. & Dhruv, G. (1991), "Effects of Price, Brand, and Store Information on Buyers' Product Evaluations", *Journal of Marketing Research*, Vol. 28 No. 3, pp. 307–19.

Dovey, T., P.A., S., Gibson, E. & Halford, J. (2008), "Food neophobia and 'picky/fussy' eating in children: A review", *Appetite*, pp. 181–193.

Evanschitzky, H., & Wunderlich, M. (2006), "An examination of moderator effects", *Journal of Service Research*, Vol. 8 No. 4, pp. 30-45.

Falguera, V., Aliguer, N. & Falguera, M. (2012), "An integrated approach to current trends in food consumption: moving toward functional and organic products?", *Food Control*, Vol. 26 No. 2, pp. 274-281.

Fandos, H., Carmina. & Carlos, F.B. (2011), "Consequences of Consumer Trust in PDO Food Products: The Role of Familiarity", *Journal of Product and Brand Management*, Vol. 20 No. 4, pp. 82–96.

Fischler, C. (1988), "Food, self and identity", *Social Science Information*, Vol. 27, pp. 275-293.

Grewal, D.R., Krishnan., Julie, B. & Norm, B. (1998), "The Effect of Store Name, Brand Name and Price Discounts on Consumers' Evaluations and Purchase Intentions", *Journal of Retailing*, Vol. 74 No. 3, pp. 31–52.

Hartline, Michael, D. & Keith, C. J. (1996), "Employee Performance Cues in a Hotel Service Environment: Influence on Perceived Service Quality, Value, and Word-of-Mouth Intentions", *Journal of Business Research*, Vol. 35 No. 3, pp. 7–15.

Helga, W.B.S. (2023), "The World of Organic Agriculture", FiBL, IFOAM - Organics International.

Horton, Raymond L. (1976), "The Structure of Perceived Risk: Some Further Progress", *Journal of the Academy of Marketing Science*, Vol. 4 No. 4, pp. 94–706.

Huang, Zhen, Yi-Dan Zhu, Jia Deng & Cheng-Lu Wang. (2022), "Marketing Healthy Diets: The Impact of Health Consciousness on Chinese Consumers' Food Choices", *Sustainability*, Vol. 14 No. 4, pp. 20-59.

Japutra, Arnold, Murilo V.B., Elena H.C. & Sebastian M. (2022), "Unraveling the Mechanism to Develop Health Consciousness from Organic Food: A Cross-Comparison of Brazilian and Spanish Millennials", *British Food Journal*, Vol. 124 No. 1, pp. 197–220.

Johnson, M. N. (1996), "Expectations, perceived performance, and customer satisfaction for a complex service: the case of bank loans", *Journal of Economic*, pp. 63-82.

Johnson, M., Herrmann, A. & Huber, F. (2006), "The evolution of loyalty intention", *Journal of Marketing*, Vol. 70 No. 2, pp. 122-32.

Jose, Heerah & Vijay K. (2021), "Emotional or Logical: Reason for Consumers to Buy Organic Food Products", *British Food Journal*, Vol. 123 No. 12, pp. 3999–4016.

Kassim, N. & Abdullah, N. (2010), "The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings: a cross cultural analysis", *Asia Pacific Journal of Marketing and Logistics*, Vol. 22 No. 3, pp. 51-71.

Khan, Shamila N. & Muhammad M. (2017), "The Power of Emotional Value: Exploring the Effects of Values on Green Product Consumer Choice Behavior", *Journal of Cleaner Production*, Vol. 150, pp. 65–74.

Kim, H. & Chung, J. (2011), "Consumer purchase intention for organic personal care products", *Journal of Consumer Marketing*, Vol. 28, pp. 40-47.

Kim, M. & Lennon, S. J. (2000), "Television shopping for apparel in the United States: Effects of perceived", *Family and Consumer Sciences Research*, Vol. 28, pp. 301-330.

Kim, Y.G., Eunju, W. & Janghyeon, N. (2018), "Sharing Economy Perspective on an Integrative Framework of the NAM and TPB", *International Journal of Hospitality Management*, Vol. 72, pp. 109–17.

Knaapila, A., Tuorila, H., Silventoinen, K., Keskitalo, K., Kallela, M., & Wessman, M. (2007), "Food neophobia shows heritable variation in humans", *Psychology and Behavior*, pp. 573-578.

Lam, A. Y. (2016), "Modelling the relationship among green perceived value, green trust, satisfaction, and repurchase intention of green products", *Contemporary Management Research*, Vol. 12 No. 1, pp. 47-60.

Lam, A. Y., Lau, M. M. & Cheung, R. (2016), "Modelling the relationship among green perceived value, green trust, satisfaction, and repurchase intention of green products", *Contemporary Management Research*, pp. 47-60.

Lewin, K. (1936), "Principles of Topological Psychology", *McGraw-Hill Book Company: New York*.

Liu, Fei, Eric T. K. Lim, Hongxiu Li, Chee-Wee T. & Dianne C. (2020), "Disentangling Utilitarian and Hedonic Consumption Behavior in Online Shopping: An Expectation Disconfirmation Perspective", *Information and Management*, Vol. 57 No. 3, pp. 103-199.

Michaelidou, Nina & Louise M. Hassan. (2010), "Modeling the Factors Affecting Rural Consumers' Purchase of Organic and Free-Range Produce: A Case Study of Consumers' from the Island of Arran in Scotland, UK", *Food Policy*, Vol. 35 No. 2, pp. 30–39.

Mitchell, V.W. & Vassiliades, V. (1997), "Perceived Risk and Risk Reduction in Holiday Purchases: A Cross-Cultural and Gender Analysis", *Journal of Euro - Marketing*, Vol. 6 No. 3, pp. 47–79.

Monroe, K. & Krishnan, R. (1985), "The Effect of Price on Subjective Product Evaluations. In Perceived Quality", *Lexington Books*, pp. 209-232.

Nhung et al. (n.d.), "Thực trạng tiêu dùng thực phẩm hữu cơ tại Việt Nam", Available at: https://taichinhdoanhnghiep.net.vn/thuc-trang-tieu-dung-thuc-pham-huu-co-tai-viet-nam-d22798.html.

Ogorevc., Marko., Kaja, P., Renata, S.E., Barbara, K., Miha, D., Nika, M. & Tjaša, B. (2020), "Social Feedback Loop in the Organic Food Purchase Decision-Making Process", *Sustainability*, Vol. 12 No. 10, pp. 41-74.

Oliver, R. (2009), "Satisfaction: A Behavioral Perspective on the Consumer" (2<sup>nd</sup> edition), New York.

Oliver, R. L. (1977), "Effect of Expectation and Disconfirmation on Postexposure Product Evaluations - an Alternative Interpretation", *Journal of Applied Psychology*, Vol. 62 No. 4, pp. 480-486.

Oliver, R. L. (1980), "A Cognitive Model of the Antecedents and Consequences of Satisfaction Decisions", *Journal of Marketing Research*, Vol. 17 No. 4, pp. 460-469.

Oxfam. (2002), "The Tea Market: A Background Study", Oxfam International, London United Kingdom.

Perrini, Francesco, Sandro C., Nicola M. & Antonio T. (2010), "The Impact of Corporate Social Responsibility Associations on Trust in Organic Products Marketed by Mainstream Retailers: A Study of Italian Consumers", *Business Strategy and the Environment*, Vol. 19 No. 8, pp. 12–26.

Peter, J. Paul & Michael J. Ryan. (1976), "An Investigation of Perceived Risk at the Brand Level", *Journal of Marketing Research*, Vol. 13 No. 2, pp. 84–88.

Pliner, P. & Hobden, K. (1992), "Development of a scale to measure the trait of food", *Appetite*, Vol. 19, pp. 105-120.

Pliner, P. & Salvy, S. (2006), "Food Neophobia in Human", *The Psychology of Food Choice*, pp. 75-92.

Rahnama, Hassan. (2016), "Effect of Consumers' Attitude on Buying Organic Products in Iran", *Journal of Food Products Marketing*, Vol. 22 No. 3, pp. 81–97.

Roitner-Schobesberger, B., Darnhofer, I. S. & Vogl, C. (2008), "Consumer perceptions of organic foods in Bangkok, Thailand", *Food Policy*, Vol. 33 No. 2, pp. 112-121.

Sangkumchaliang, P. & Huang, W. (2012), "Consumers' perceptions and attitudes of organic food products in Northern Thailand", *International Food and Agribusiness Management Review*, Vol. 15, pp. 87-102.

Seegebarth, B., Behrens, S., Klarmann, C., Hennings, N. & Scribner, L. (2016), "Customer value perception of organic food: cultural differences and cross-national segments".

*Briti*Bäckström, A., A. M. Pirttilä-Backman & H. Tuorila. (2004), "Willingness to Try New Foods as Predicted by Social Representations and Attitude and Trait Scales", *Appetite*, Vol. 43 No. 1, pp. 75–83.

Scalvedi, M.L. & Anna, S. (2018), "Exploring Local and Organic Food Consumption in a Holistic Sustainability View", *British Food Journal*, Vol. 120 No. 4, pp. 49–62.

Sheth, Jagdish N., Bruce I. Newman & Barbara L. Gross. (1991), "Why We Buy What We Buy: A Theory of Consumption Values", *Journal of Business Research*, Vol. 22 No. 2, pp. 59–70.

Sumi, Razia S. & Golam K. (2018), "Factors Affecting the Buying Intention of Organic Tea Consumers of Bangladesh", *Journal of Open Innovation : Technology, Market, and Complexity*, Vol. 4 No. 3, pp. 24.

Sweeney, Jillian C., & Geoffrey N. Soutar. (2001), "Consumer Perceived Value: The Development of a Multiple Item Scale", *Journal of Retailing*, Vol. 77 No. 2, pp. 03–20.

Teas, R. Kenneth, & Sanjeev A. (2000), "The Effects of Extrinsic Product Cues on Consumers' Perceptions of Quality, Sacrifice, and Value", *Journal of the Academy of Marketing Science*, Vol. 28 No. 2, pp. 78–90.

Testa, Francesco, Silvia, S. & Marco, F. (2019), "Are Green Consumers Really Green? Exploring the Factors behind the Actual Consumption of Organic Food Products", *Business Strategy and the Environment*, Vol. 28 No. 2, pp. 27–38.

Hà Nội mới. (2022), "Năm 2022, cả nước xảy ra 54 vụ ngộ độc thực phẩm", Available at: https://hanoimoi.vn/nam-2022-ca-nuoc-xay-ra-54-vu-ngo-doc-thuc-pham-10393.html

Yee, C. J., San, N. C. & Khoon, C. H. (2011), "Consumers' perceived quality, perceived value and perceived risk towards purchase decision on automobile", *American Journal of Economics and Business Administration*, Vol. 3 No. 1, pp. 47-57.

Zeithaml, Valarie A. (1988), "Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence", *Journal of Marketing*, Vol. 52 No. 3, pp. 2–22.

Vindigni, G. J. (2002), "Organic food consumption: a multi-theoretical", *British Food Journal*, Vol. 104, pp. 624-642.

Westboork, R. A. & Oliver, R. L. (1991), "The dimensionality of consumption emotion patterns and consumer satisfaction", *Journal of Consumer Research*, Vol. 18, pp. 84-91.

Wu, L. Y., Chen, K. Y., Chen, P. Y. & Cheng, S. L. (2014), "Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective", *Journal of*, Vol. 67, pp. 2768-2776.