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Factors Influencing Online Purchase Intention of Organic Food among Generation X Consumers in Ho Chi Minh

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Abstract

Purpose: Due to the growing trend of online shopping for organic food in Ho Chi Minh City, Vietnam, this research investigates factors influencing online purchase intention among Gen X consumers, incorporated reasons against organic food purchase, health consciousness, reasons for organic food consumption, attitudes, social influence, and perceived risk. **Research design, data and methodology:** The quantitative method was used to distribute online questionnaires to 500 Gen X consumers in Ho Chi Minh City. The index of item-objective congruence (IOC) and Cronbach's Alpha reliability test of 50 participants were approved before proceeding to the data collection. The data analysis was implemented by confirmatory factor analysis (CFA) including goodness of model fit, reliability and validity. Additionally, structural equation modeling (SEM) was applied for hypotheses testing. **Results:** The results showed that reasons against organic food consumption, reasons for organic food consumption, health consciousness and social influence significantly influence attitudes. Furthermore, reasons against organic food consumption, reasons for organic food consumption and attitudes significantly influence online purchase intention. On the other hand, the relationship between perceived risk and online purchase intention is not supported. **Conclusions:** Academic practitioners and marketers should focus on rational motives to build positive attitude and enhance online purchase intention of organic food.

Keywords: Organic Food Consumption, Generation X, Online Purchase Intention, Attitudes, Perceived Risk

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Organic food refers to food that is certified to have been grown under organic agriculture practices, including avoidance of artificial pesticides, herbicides and fertilizers (Kahl et al., 2012). The modern organic food movement began in the late 1940s in Western Europe and the United States, driven by growing concern about the use of pesticides and herbicides in food. These chemicals, which had been developed during the first half of the 20th century, had led to an increasing output of food (which was highly beneficial), but also raised questions about the sustainability and effects on the environment and human health (Barton, 2018). The organic food movement gained traction during the 1960s and 1970s, when movements such as the hippie movement (in the United States) and the back to the land movement (in Great Britain) began to emphasize the importance of fresh, local, and organic food. The organic food market is also growing rapidly around the world. The

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global market for organic food has risen from US$15.2 billion in 1999 to US$106 billion in 2019. The largest single market for organic food is North America (primarily the United States), which comprised 45% of global organic food sales in 2019 (Wunsch, 2021).

Online shopping is well established in many (though not all) Asian countries. The estimated revenue of e-commerce in Asia is US$1,972,682 million. The biggest volume of ecommerce is in China, which accounted for 78.2% of total online sales revenues in 2021. Estimates indicate that as of 2021, about 53.4% of Asia's population will shop online at least once, a figure expected to rise to 68.3% by 2025 (Statista, 2021). Thus, although online shopping is predominantly in China by volume, it is commonplace throughout the region. E-commerce in Vietnam has had a rapid period of adoption in the past few years, moving from very little online commerce in the mid-2010s to a market estimated at US$14.1 billion today. This makes the country the Southeast Asian's region's fourth largest online market. Furthermore, market penetration is very high, with 78.7% of online users making use of e-commerce (Nguyen, 2021). Thus, the online shopping trend is well established.

Vietnam's organic food market is small but growing, with an estimated market size of US$130 million in 2019 (Nguyen, 2021). Vietnam is also a major organic food producer, with 77,000 hectares and more than 1,022 organic farms participating in the market as of 2017. Generation X refers to person who were born between 1965 and 1980 who are the primary online purchasers of organic food in the country (Organic City, 2020). However, adoption of organic food and beverage, especially packaged food, remains low in Vietnam, primarily due to problems like lack of availability and a high price point. Therefore, this study aims to fill the research gap to identify factors influencing online purchase intention among Gen X consumers, incorporating reasons against organic food consumption, reason for organic food consumption, health consciousness, attitudes, social influence, perceived risk, and online purchase intention.

2. Literature Review

2.1 Reasons Against Organic Food Purchase

Reasons against organic food purchase is grounded in behavioral reasoning theory, which is a theory arguing that conscious decisions are the result of behavioral reasoning, in which reasons for and against the behavior are major influences in the decision (Westaby, 2005). Following this theoretical perspective, a reason is defined as "the specific subjective factors people use to explain their anticipated behavior" (Westaby, 2005). Reasons against are therefore subjective factors that are negative; these are often described as disadvantages or "cons". Reasons against adopting a particular behavior are not viewed as completely preventing the behavior (except in extreme cases). Instead, Westaby (2005) argues that the consumer balances the reasons against adoption of the behavior against the reasons for adoption of the behavior in order to determine if it would be overall beneficial.

Tandon et al. (2020) found a positive relationship between reasons against organic food consumption and attitudes, which they suggested may occur because the specific reasons against (usage and risk barriers) may increase the perception that organic food is a desirable commodity, even if it reduces actual availability. This is supported in part by the findings of Kumar et al. (2021), which showed that the high price of local food had a positive relationship to attitudes (though negative product perception had a negative effect). Reasons against organic food purchase could also potentially have an influence on online organic food purchase intention, based on the outcome of the previous studies that have used this theoretical model to investigate similar consumer decisions (Claudy & Peterson, 2014; Kumar et al., 2021; Talwar et al., 2021; Tan et al., 2021; Tandon et al., 2020, 2021). Therefore, two hypotheses are stated as following:

H1: Reasons against organic food purchase have a significant influence on attitudes toward organic food.

H2: Reasons against organic food purchase have a significant influence on online organic food purchase intention.

2.2 Reasons for Organic Food Purchase

The reason for organic food purchase is once again defined based on behavioral reasoning theory (Westaby, 2005). The basic definition of reasons for a given behavior is that they are the reasons that support the adoption of the behavior (sometimes called advantages or "pros"). This definition follows the definition follows the prior definitions as above. Specifically, it states that the reasons for undertaking a behavior are those that, in the context of the decision, provide a positive reason for adopting the behavior. At the same time, reasons for organic food purchase do not necessarily fully determine whether consumers will choose to adopt the behavior (Westaby, 2005).

Reasons for a given green behavior have also been investigated by several previous studies as an influence on attitude toward the behavior in the context of organic food consumption and other forms of green behavior (Claudy & Peterson, 2014; Kumar et al., 2021; Tandon et al., 2020, 2021). Reasons for the behavior were found in these studies to be a strong positive predictor of attitudes toward the behavior, which is consistent with the previous theoretical

frameworks. In the case of organic food purchase intention, reasons for organic food purchase did have a positive and significant effect, which was also stronger than the effect of the reasons against organic food purchase. Similar to the findings of Talwar et al. (2021), while the effect of reasons for organic food purchase were a significant influence on purchase intentions. Hence, hypotheses are proposed per below:

H3: Reasons for organic food purchase have a significant influence on attitudes toward organic food.

H4: Reasons for organic food purchase have a significant influence on online organic food purchase intention.

2.3 Health Consciousness

There have been various definitions of health consciousness as it relates to organic food consumption. One of these definitions is "the degree to which health concerns are integrated into individual daily activities" (Testa et al., 2019). Testa et al. (2019) considered health concerns such as physical fitness, diet and exercise, which were investigated as playing a daily role in the individual's thoughts and beliefs. However, they did not make a detailed investigation of how such health consciousness emerged or what it meant. Health consciousness is a widely acknowledged belief or value that can influence consumer views and tendencies toward organic food consumption and other food choice decisions. This is one of the most widely studied factors in the choice of organic food, as illustrated by several studies reviewed for this research (Çabuk et al., 2014; Hansmann et al., 2020; Michaelidou & Hassan, 2008; Nguyen & Truong, 2021). Accordingly, this study hypothesizes the significant relationship between health consciousness on online purchase intention per a below hypothesis:

H5: Health consciousness has a significant influence on attitudes toward organic food.

2.4 Attitudes

Although the term 'attitude' is used widely, it is surprisingly difficult to define precisely. The classical definition of the attitude construct in the theory of planned behavior is that it is "the degree to which the person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991). Ajzen (1991) further specifies that the attitude relates not to general questions about the behavior in question (which are broken out into other variables like social norms and perceived behavioral control). Instead, the attitudes in question are specifically about whether the contemplated behavior is likely to meet the individual's needs or accomplish their objectives (Kitcharoen & Vongurai, 2021). In the context of organic food, the attitude can be defined as "the sum of salient beliefs concerning the attributes of organic food, multiplied by the value attached (Aertsens et al., 2011)." Given its consistency in theory, it is not a surprise that this was one of the most commonly investigated relationships in the literature reviews (Aertsens et al., 2011; Al-Swidi et al., 2014; Bhatti et al., 2018). It is anticipated that attitudes and behavioral intentions will have a positive relationship – therefore, consumers with positive attitudes toward consumption of organics are expected to be more likely to form purchase intentions. Hence, H6 is set:

H6: Attitudes toward organic food have a significant influence on online organic food purchase intention.

2.5 Social Influence

Social influence has been defined as a factor in individual decisions in contexts like organic food consumption, as well as more broadly in the context of individual decisions. A general definition is that provided by Walker (2007) referred social influence as "change in an individual's thoughts, feelings, attitudes, or behaviors that results from interaction with another individual or a group. Social influence, however, is the process by which individuals make real changes to their feelings and behaviors as a result of interaction with others who are perceived to be similar, desirable or expert (Fan et al., 2021). As defined by Ketabi et al. (2014), friend roles are a particular form of social influence, including the actions and opinions of a single reference group (friends) which may have a strong effect on the individual's behavior. Thus, one of the exploratory aspects of this research is attempting to disentangle these relationships and evaluate the direct influence of friend roles as the main subjective norm, considering it as an influence on attitudes toward organic food. Based on the above assumption, a following hypothesis is developed:

H7: Social influence has a significant influence on attitudes toward organic food.

2.6 Perceived Risk

A classical definition of perceived risk is that it is "a subjectively-determined expectation of loss; the greater the probability of this loss, the greater the risk thought to exist for an individual" (Mitchell, 1999). There are also several definitions of perceived risk which are specific to the environment of online shopping, making them particularly relevant for this study. One of these definitions is that "perceived risk is a construct of perceived situation with two major components; the probability of a loss and the subjective feeling of unfavorable consequences" (Li & Huang, 2009). This definition emphasizes that perceived

risk relates specifically to the problem of shopping online and the unknown transaction quality of a given retailer. Finally, perceived risk in relation to online shopping can also be defined as "felt uncertainty regarding possible negative consequences of using a product or service" (Wei et al., 2018). Theoretically, perceived risk can be expected to have a negative effect on the purchase intention (Mitchell, 1999). Many studies generally proposed that there would be a negative effect of perceived risk on the behavioral intention, which is in line with theories regarding consumer perceived risk and its effect on the consumer's decision process (Mitchell, 1999; Tham et al., 2019). Hence, a hypothesis per below proposes an insignificant relationship between perceived risk and online purchase intention:

H8: Perceived risk has a significant influence on online organic food purchase intention.

3. Research Methods and Materials

3.1 Research Framework

The conceptual framework is summarized in Figure 1. This conceptual framework incorporates components from the three studies (Ketabi et al., 2014; Tandon et al., 2021; Wei et al., 2018) that form the basis of the theoretical framework, using their operationalized definitions rather than the general theoretical definitions in the foundational theories. While the conceptual framework is based in the theoretical relationships, the hypotheses themselves are stated based on the empirical evidence from primary studies.

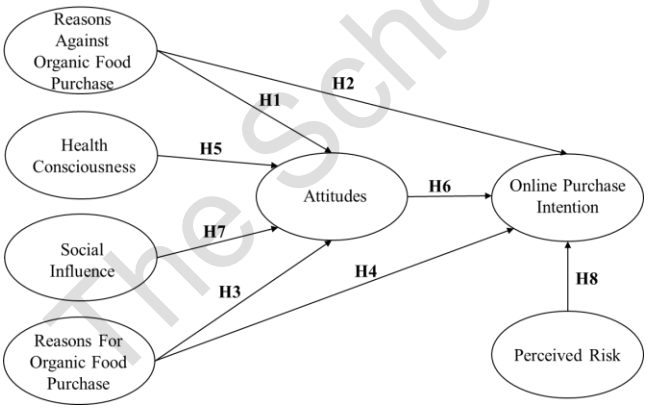

Figure 1: Conceptual Framework

H1: Reasons against organic food purchase have a significant influence on attitudes toward organic food.

H2: Reasons against organic food purchase have a significant influence on online organic food purchase intention.

H3: Reasons for organic food purchase have a significant influence on attitudes toward organic food.

H4: Reasons for organic food purchase have a significant influence on online organic food purchase intention.

H5: Health consciousness has a significant influence on attitudes toward organic food.

H6: Attitudes toward organic food have a significant influence on online organic food purchase intention.

H7: Social influence has a significant influence on attitudes toward organic food.

H8: Perceived risk has a significant influence on online organic food purchase intention.

3.2 Research Methodology

Data for the study is collected using an online survey, composing with screening questions, measuring items of five-point Likert scale and demographic information. The instrument's content validity is tested using item-objective congruence (IOC) index by three experts, resulting all items were passed at a score 0.6 or above. In the pilot testing of 50 participants, internal consistency reliability was measured using Cronbach's alpha, resulting all constructs were approved at a score 0.7 or above (Nunnally & Bernstein, 1994), including Reason Against (RA) = 0.861, Health Consciousness (HC) = 0.708, Reason For (RF) = 0.763, Attitude (ATT) = 0.846, Social Influence (SI) = 0.727, Perceived Risk (PR) = 0.731 and Purchase Intention (PI) = 0.761.

The measurement model was tested using confirmatory factor analysis (CFA). This included tests of convergent validity using composite reliability (CR) and average variance extracted (AVE) measures and tests of discriminant validity. The relationships between variables are tested using structural equation modelling (SEM) in order to assess latent variables and structure.

3.4 Population and Sample Size

The target population of the research is Gen X residents of Ho Chi Minh City, Vietnam, who were born between 1965 and 1980. This target population is used as a proxy for consumers who might engage in online grocery shopping. According to (Soper, 2022), this calculator indicated that given the model structure and the anticipated effect size of 0.2, the recommended minimum sample size was 425 members. The online questionnaire was distributed to approximately 1,000 respondents. As a result, 500 responses were received and passed the data screening.

3.4 Sampling Technique

This study applied are judgmental sampling, convenience sampling and snowball sampling. For judgmental sampling,

Gen X residents of Ho Chi Minh City, Vietnam, who were born between 1965 and 1980 were selected. The convenience sampling was employed to distribute online survey to 500 Gen X consumers during April to July 2022. Snowball sampling method was to encourage respondents to share survey link on their social networks.

4. Results and Discussion

4.1 Demographic Information

Table 1 demonstrated the demographic profile of 500 respondents. The respondents are 298 males and 212 females, representing for 59.6 percent and 42.4 percent respectively. Most respondents were employees of 25.8 percent, followed by self-employed (21 percent) and government agency (19.6 percent). For the frequency of online shopping, the largest group was 202 participants who spent 1-2 times per week made up 40.4 percent, while the least was only 27 participants shop online once in three months or less accounted 5.4 percent. The majority of respondent found about organic food online (39 percent).

Table 1: Demographic Profile

Demographic and General Data (n=500)		Frequency	Percentage
Gender	Male	298	59.6
	Female	202	40.4
Occupation	Students	15	3.0
	Self-employed	105	21.0
	Housework	68	13.6
	Retired	45	9.0
	Government agency	98	19.6
	Employees	129	25.8
	Others	40	8.0
Frequency of online shopping	Everyday	82	16.4
	1-2 times a week	202	40.4
	Once a month	189	37.8
	Once in 3 months or less	27	5.4
How do you find out about organic food?	TV	108	21.6
	Books/ Magazine	56	11.2
	Friends/ Family	96	19.2
	Online	195	39.0
	Others	45	9.0

4.2 Confirmatory Factor Analysis (CFA)

In this study, the measurement model was tested using confirmatory factor analysis (CFA). This included tests of convergent validity using composite reliability (CR) and average variance extracted (AVE) measures and tests of discriminant validity. Furthermore, internal consistency reliability was measured using Cronbach's alpha (CA). Cronbach's alpha coefficient values are greater than 0.7 (Nunnally & Bernstein, 1994), therefore, the internal consistency of each item in CFA is approved. According to Fornell and Larcker (1981), factor loading of all loading items were greater than 0.50 and mostly were above 0.70, ranging from 0.778 to 0.906. The results of CR in this study were all higher than 0.7, ranging from 0.701 to 0.791. The results of AVE were also above 0.5, ranging from 0.577 to 0.691. As shown in Table 2, all estimates of CFA were significant.

Table 2: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Reasons Against (RA)	Tandon et al. (2020)	5	0.909	0.801-0.825	0.755	0.691
Health Consciousness (HC)	Tandon et al. (2020)	4	0.922	0.811-0.823	0.701	0.602
Reasons For (RF)	Tandon et al. (2020)	6	0.932	0.798-0.833	0.724	0.625
Attitude (ATT)	Nguyen et al. (2019)	4	0.949	0.808-0.835	0.739	0.619
Social Influence (SI)	Nguyen et al. (2019)	3	0.854	0.781-0.897	0.703	0.577
Online Perceived Risk (PR)	Wei et al. (2018)	3	0.854	0.815-0.825	0.724	0.628
Purchase Intention (PI)	Wei et al. (2018)	4	0.883	0.778-0.906	0.791	0.642

Notes: *** $p < .001$; Cut-off criteria include CR > .700 and AVE > .500 (Hair et al., 2016)

In the measurement model, the goodness of fit for the was measured by CMIN/DF, GFI, AGFI, NFI, CFI, TLI, and RMSEA. The model showed acceptable fit with no adjustment required. Subsequently, convergence validity and discriminant validity were also verified in the measurement model as shown in Table 3

Table 3: Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values
CMIN/DF	≤ 5.0 (Wheaton et al., 1977)	3.56
GFI	≥ 0.85 (Kline, 2011)	0.920
AGFI	≥ 0.85 (Kline, 2011)	0.921
NFI	≥ 0.85 (Kline, 2011)	0.945
CFI	≥ 0.85 (Kline, 2011)	0.950
TLI	≥ 0.85 (Kline, 2011)	0.943
RMSEA	≤ 0.08 (Pedroso et al., 2016)	0.0631
Model Summary		**Acceptable Model Fit**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation
Source: Created by the author.

In Table 4, Fornell and Larcker (1981) indicated that the testing for discriminant validity was evaluated by computing the square root of each AVE. The result in this study showed the value of discriminant validity is larger than all inter-construct/factor correlations, therefore, the discriminant validity is supportive. Furthermore, multicollinearity's problem can be inspected through correlation coefficient. the factor correlations in Table 4 did not surpass 0.80. Accordingly, the problem of multicollinearity is not issued (Studenmund, 1992).

Table 4: Discriminant Validity

	RA	HC	RF	ATT	FRI	PR	PI
RA	**0.831**						
HC	0.754	**0.776**					
RF	0.789	0.695	**0.791**				
ATT	0.784	0.682	0.783	**0.787**			
FRI	0.752	0.745	0.751	0.648	**0.760**		
PR	0.759	0.746	0.772	0.757	0.716	**0.792**	
PI	0.762	0.755	0.761	0.782	0.624	0.725	**0.801**

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

The SEM process produces both unstandardized and standardized regression coefficients, which can be used to identify the significance and hypotheses testing (Byrne, 2016). Goodness of fit tests are used to evaluate structural model. In Table 5, all values present model fit with no adjustment required including CMIN/DF = 3.60, GFI = 0.910, AGFI = 0.910, NFI = 0.950, CFI = 0.951, TLI = 0.933 and RMSEA = 0.060.

Table 5: Goodness of Fit for Structural Model

Index	Acceptable Values	Statistical Values
CMIN/DF	≤ 5.0 (Wheaton et al., 1977)	3.60
GFI	≥ 0.85 (Kline, 2011)	0.910
AGFI	≥ 0.85 (Kline, 2011)	0.910
NFI	≥ 0.85 (Kline, 2011)	0.950
CFI	≥ 0.85 (Kline, 2011)	0.951
TLI	≥ 0.85 (Kline, 2011)	0.933
RMSEA	≤ 0.08 (Pedroso et al., 2016)	0.060
Model Summary		**Acceptable Model Fit**

Remark: CMIN/DF = The ratio of the chi-square value to degree of freedom, GFI = Goodness-of-fit index, AGFI = Adjusted goodness-of-fit index, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker-Lewis index, and RMSEA = Root mean square error of approximation
Source: Created by the author.

4.4 Research Hypothesis Testing Result

In Table 6, the hypotheses were accepted based on the direction of the relationship (as stated within the hypothesis itself) and the significance of the relationship at the accepted value of $p < 0.01$ (Hair et al., 2016).

Table 6: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	p-value (t)	Result
H1: RA→ATT	0.260	<.001	Supported
H2: RA→PI	0.302	<.001	Supported
H3: RF→ATT	0.288	<.001	Supported
H4: RF→PI	0.264	<.001	Supported
H5: HC→ATT	0.255	<.001	Supported
H6: ATT→PI	0.238	<.001	Supported
H7: SI→ATT	0.166	.001	Supported
H8: PR→PI	-0.131	.001	Not Supported

Source: Created by the author.

The hypotheses testing results from Table 6 can be extended per followings:

H1 confirms that reasons against organic food purchase have a significant influence on attitudes toward organic food with the standardized coefficient value of 0.260.

H2 approves the significant relationship between reasons against organic food purchase and online organic food purchase intention, accounting the standardized coefficient value of 0.302.

H3 found that reasons for organic food purchase have a significant influence on attitudes toward organic food, accounting the standardized coefficient value of 0.288.

For **H4**, reasons for organic food purchase significantly influence online organic food purchase intention in this study with the standardized coefficient value of 0.264.

H5 approves the significant relationship between health consciousness and attitudes toward organic food as the standardized coefficient value of 0.255.

H6 supports that attitudes toward organic food have a significant influence on online organic food purchase intention with the standardized coefficient value of 0.238.

H7 affirms that social influence has a significant influence on attitudes toward organic food with the standardized coefficient value of 0.166.

In **H8**, perceived risk has no significant influence on online organic food purchase intention as the results found no support with the standardized coefficient value of -0.131.

5. Conclusions and Recommendation

5.1 Conclusion and Discussion

Research objectives are met to investigate factors influencing online purchase intention among Gen X consumers in Ho Chi Minh City, Vietnam. The data were collected from 500 Gen X consumers. For research methodology, CFA was assessed in SPSS AMOS statistical software to ensure validity, reliability and goodness of fit. Hypotheses testing were proven in the SEM via structural

model. The results showed that reasons against organic food consumption, reasons for organic food consumption, health consciousness and social influence significantly influence attitudes. Furthermore, reasons against organic food consumption, reasons for organic food consumption and attitudes significantly influence online purchase intention. On the other hand, the relationship between perceived risk and online purchase intention is not supported.

The findings can be discussed based on theoretical and practical implications. Firstly, several studies have investigated the relationship of reasons against a given behavior and attitudes toward it, in contexts like general green consumption (Claudy & Peterson, 2014; Kumar et al., 2021; Talwar et al., 2021; Tan et al., 2021; Tandon et al., 2020, 2021). Thus, this finding supports the link between the reasons against the behavior and the attitudes toward the behavior. Additionally, the result found that there is a significant influence of reasons against organic food purchase on purchase intention (Tandon et al., 2020, 2021).

Secondly, reasons for a given green behavior have also been investigated by several previous studies as an influence on attitude toward the behavior and online purchase intention in the context of organic food consumption and other forms of green behavior (Claudy & Peterson, 2014; Kumar et al., 2021; Talwar et al., 2021; Tan et al., 2021; Tandon et al., 2020, 2021). Reason for organic food purchase can be varied such as health concern, convenience and affordable price. Therefore, reasons for the purchase dictate positive or negative attitude and online purchase intention.

Thirdly, health consciousness is significantly related to attitudes. The evidence strongly presented that health consciousness of Gen X have a positive effect on attitude toward organic food consumption (Tandon et al., 2020). Fourthly, attitudes toward organic food have a significant influence on online organic food purchase intention as consistent with previous literatures (Aertsens et al., 2011; Al-Swidi et al., 2014; Bhatti et al., 2018). Thus, it is anticipated that consumers with positive attitudes toward consumption of organics are expected to have online purchase intention. Next, the influence from friends or other important persons. Ketabi et al. (2014) indicated that friend roles as social influence has a strong effect on the attitudes toward organic food.

Lastly, this study found perceived risk has no significant influence on online organic food purchase intention. The result goes the same direction per the prediction. Several studies had a consensus on a negative effect of perceived risk on the behavioral intention, which can be explained the risk on online purchase involves freshness, hazardous materials and information privacy (Mitchell, 1999; Tham et al., 2019). However, this study found insignificant relationship between perceived risk and purchase intention which can be assumed that the risk perception on organic food consumption is low.

5.2 Recommendation

For recommendations, academic practitioners, online retailers and marketers should focus on rational motives to build positive attitude and enhance online purchase intention of organic food. Based on the results of this study, the first recommendation is to emphasize reasons for organic food consumption, health consciousness and social influence to establish favorable attitudes toward organic food consumption. Organic food can be perceived as beneficial to the health and can minimize risk of long-term illness. Furthermore, one of the characteristics of modern life is the use of the Internet for communication and consumption activities, which is now widespread. Online food shopping can be a convenient choice for busy working people. Marketers can strategize marketing communication to point out the key benefits of organic food consumption. In addition, the marketing campaign should involve health influencer and referral program (as social influence) to arouse online purchase intention.

Secondly, reasons against organic food consumption should be minimized as it resides negative logic towards such product. General speaking, even though organic food has viewed as a wise choice among Gen X consumers which most of them in social working class are health concern, organic food is perceived as high price and optional. This perception can be changed through knowledge sharing or informative article stressing the difference in term of price point and other health benefits of such products. In addition, organic food in many study links to green behavior of customer. Hence, environmental factor should be examined to raise the moral of public. In terms of research, environment factors should be included to the framework to investigate its impact on online purchase intention of organic food.

Lastly, despite consumer adoption of both organic food and online shopping are relatively new trends in Vietnam, there has not been much research into how Vietnamese online shoppers respond when faced with a credence good such as organic food, which requires a high level of trust in certification, knowledge about health and environmental effects, and other information to make a decision. Therefore, the usability of the technology, and more on the factors that may influence consumers toward – or against – buying organic food online. The future scholar can fill this gap in the research to assess ecommerce adoption for online fresh food purchase.

5.3 Limitation and Further Study

There are several limitations of the study, which were imposed either to ensure the theoretical basis was both manageable and well-grounded or for methodological reasons. In terms of theoretical scope limitations, there are a wide variety of potential influencing factors in online shopping and organic food consumption. This study was limited to only few factors due to the need to ensure the research was methodologically manageable and to avoid requiring too much time from participants. Furthermore, as the study's timeline does not allow for a longitudinal study which would be needed to adequately report both intentions and behaviors. Accordingly, qualitative study should be further conducted to compare the results. Another limitation is that as the questionnaire was distributed only in Vietnamese, it is likely that some residents of Ho Chi Minh City may be excluded due to inadequate language knowledge. Finally, the study's research being cross-sectional means that the findings may be outdated quickly, particularly if consumers rapidly grow more comfortable with online shopping as has happened during the COVID-19 pandemic.

References

Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J., & van Huylenbroeck, G. (2011). The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *British Food Journal, 113*(11), 1353-1378. https://doi.org/10.1108/ 00070701111179988

Ajzen, I. (1991). The theory of planned behavior. *Orgnizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Al-Swidi, A., Huque, S. M. R., Hafeez, M. H., & Shariff, M. N. M. (2014). The role of subjective norms in theory of planned behavior in the context of organic food consumption. *British Food Journal, 116*(10), 1561-1580. https://doi.org/10.1108/BFJ-05- 2013-0105

Barton, G. A. (2018). *The global history of organic farming.* Cambridge University Press.

Bhatti, A., Saad, S., & Gbadebo, S. M. (2018). Convenience risk, product risk, and perceived risk influence on online shopping: Moderating effect of attitude. *International Journal of Business Management, 3*(2), 1-11.

Byrne, B. M. (2016). *Structural Equation Modelling with AMOS: Basic Concepts, Applications, and Programming* (3rd ed.). Routledge.

Çabuk, S., Tanrikulu, C., & Gelibolu, L. (2014). Understanding organic food consumption: Attitude as a mediator. *International Journal of Consumer Studies, 38*(4), 337-345. https://doi.org/10.1111/ijcs.12094

Claudy, M. C., & Peterson, M. (2014). Understanding the underutilization of urban bicycle commuting: A behavioral reasoning perspective. *Journal of Public Policy and Marketing, 33*(2), 173-187. https://doi.org/10.1509/jppm.13.087

Fan, X., Duangekanong, S., & Xu, M. (2021). Factors Affecting College Students' Intention to Use English U-learning in Sichuan, China. *AU-GSB E-JOURNAL*, *14*(2), 118-129. https://doi.org/10.14456/augsbejr.2021.20

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research, 18*(1), 39-50. https://doi.org/10.2307/3151312

Hair, Jr. J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). *A primer on partial least squares structural equation modeling (PLS-SEM)*. Sage Publications.

Hansmann, R., Baur, I., & Binder, C. R. (2020). Increasing organic food consumption: An integrating model of drivers and barriers. *Journal of Cleaner Production, 275*(10), 1-62. https://doi.org/10.1016/j.jclepro.2020.123058

Kahl, J., Baars, T., Bügel, S., Busscher, N., Huber, M., Kusche, D., Rembiałkowska, E., Schmid, O., Seidel, K., Taupier-Letage, B., Velimirov, A., & Załęcka, A. (2012). Organic food quality: A framework for concept, definition and evaluation from the European perspective. *Journal of the Science of Food and Agriculture, 92*(14), 2760-2765. https://doi.org/10.1002/jsfa.5640

Ketabi, S. N., Ranjbarian, B., & Ansari, A. (2014). Analysis of the Effective Factors on Online Purchase Intention through Theory of Planned Behavior. *International Journal of Academic Research in Business and Social Sciences, 4*(4), 374-382. https://doi.org/10. 6007/ijarbss/v4-i4/808

Kitcharoen, K., & Vongurai, R. (2021). Factors influencing customer attitude and behavioral intention towards consuming dietary supplements. *AU-GSB E-JOURNAL*, *13*(2), 94-109.

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd ed.). The Guilford Press.

Kumar, S., Talwar, S., Murphy, M., Kaur, P., & Dhir, A. (2021). A behavioural reasoning perspective on the consumption of local food. A study on REKO, a social media-based local food distribution system. *Food Quality and Preference, 93*(1), 1-13. https://doi.org/10.1016/j. foodqual.2021.104264

Li, Y. H., & Huang, J. W. (2009). Applying Theory of Perceived Risk and Technology Acceptance Model in the Online Shopping Channel. *World Academy of Science, Engineering and Technology, 53*(5), 919-925.

Michaelidou, N., & Hassan, L. M. (2008). The role of health consciousness, food safety concern and ethical identity on attitudes and intentions towards organic food. *International Journal of Consumer Studies, 32*(2), 163-170.

Mitchell, V. (1999). Consumer perceived risk: conceptualisations and models. *European Journal of Marketing, 33*(1/2), 163-195. https://doi.org/10.1108/03090569910249229

Nguyen, D. T., & Truong, D. C. (2021). The Impact of Psychological and Environmental Factors on Consumers' Purchase Intention toward Organic Food: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business, 8*(1), 915-925. https://doi.org/10.13 106/jafeb.2021.vol8.no1.915

Nguyen, H. V., Nguyen, N., Nguyen, B. K., Lobo, A., & Vu, P. A. (2019). Organic food purchases in an emerging market: The influence of consumers' personal factors and green marketing practices of food stores. *International Journal of Environmental Research and Public Health, 16*(6), 1-17. https://doi.org/10.3390/ijerph16061037

Nguyen, M. N. (2021, April 1). *E-commerce in Vietnam - statistics & facts.* Statista. https://www.statista.com/topics/5321/e-commerce-in-vietnam/

Nunnally, J. C., & Bernstein, I. H. (1994). The Assessment of Reliability. *Psychometric Theory, 3,* 248-292.

Organic City. (2020, May 22). *Organic food market in Southeast Asia.* https://www.organicityeu.com/organic-food-market-in-southeast-asia

Pedroso, R., Zanetello, L., Guimaraes, L., Pettenon, M., Goncalves, V., Scherer, J., Kessler, F., & Pechansky, F. (2016). Confirmatory factor anlaysis (CFA) of the crack use relapse scale (CURS). *Archives of Clinical Psychiatry, 43*(3), 37-40.

Soper, D. S. (2022, May 24). *A-priori Sample Size Calculator for Structural Equation Models.* Danielsoper. www.danielsoper.com/statcalc/default.aspx

Statista. (2021, June 1). *Digital markets - eCommerce Asia.* https://www.statista.com/outlook/dmo/ecommerce/asia

Studenmund, A. H. (1992). *Using Econometrics: A Practical Guide.* Harper Collins.

Talwar, S., Kaur, P., Yadav, R., Sharma, R., & Dhir, A. (2021). Food waste and out-of-homedining: antecedents and consequents of the decision to take away leftovers after dining at restaurants. *Journal of Sustainable Tourism, 1*(1), 1-26. https://doi.org/10.1080/0966 9582.2021.1953512

Tan, L. L., Abd Aziz, N., & Ngah, A. H. (2021). Examining Green Hotel Patronage Intention from the Perspective of Behavioural Reasoning Theory. *International Journal of Business and Society, 22*(2), 901-921. https://doi.org/10.33736/ijbs.3766.2021

Tandon, A., Dhir, A., Kaur, P., Kushwah, S., & Salo, J. (2020). Behavioral reasoning perspectives on organic food purchase. *Appetite, 154*(6), 104786. https://doi.org/10.1016/ j.appet.2020.104786

Tandon, A., Jabeen, F., Talwar, S., Sakashita, M., & Dhir, A. (2021). Facilitators and inhibitors of organic food buying behavior. *Food Quality and Preference, 88*(8), 104077. https://doi.org/10.1016/j.foodqual.2020.104077

Testa, F., Sarti, S., & Frey, M. (2019). Are green consumers really green? Exploring the factors behind the actual consumption of organic food products. *Business Strategy and the Environment, 28*(2), 327-338. https://doi.org/10.1002/bse.2234

Tham, K. W., Dastane, O., Johari, Z., & Ismael, N. B. (2019). Perceived Risk Factors Affecting Consumers' Online Shopping Behaviour. *The Journal of Asian Finance, Economics and Business, 6*(4), 246-260. https://doi.org/10.13106/jafeb.2019.vol6.no4.249

Walker, L. S. (2007). Social Influence. In Ritzer, G. (Ed.), *The Blackwell Encyclopedia of Sociology* (pp. 1-4). John Wiley and Sons. https://doi.org/10.1002/9781405165518. wbeoss154.pub2

Wei, Y., Wang, C., Zhu, S., Xue, H., & Chen, F. (2018). Online purchase intention of fruits: Antecedents in an integrated model based on technology acceptance model and perceived risk theory. *Frontiers in Psychology, 9*, 1-11. https://doi.org/10.3389/fpsyg.2018.01521

Westaby, J. D. (2005). Behavioral reasoning theory: Identifying new linkages underlying intentions and behavior. *Organizational Behavior and Human Decision Processes, 98*(2), 97-120. https://doi.org/10.1016/j.obhdp.2005.07.003

Wheaton, B., Muthen, B., Alwin, D. F., & Summers, G. (1977). Assessing Reliability and Stability in Panel Models. *Sociological Methodology, 8*, 84-136. http://dx.doi.org/10.2307/270754

Wunsch, N. G. (2021, February 17). *Worldwide sales of organic food from 1999 to 2019.* Statista. https://www.statista.com/statistics/273090/worldwide-sales-of-organic-foods-since-1999/