VIETNAMESE ORGANIC RICE PURCHASING DECISION: WHAT ARE THE ROLE OF HEALTH, AFFORDABILITY, PACKAGE, AND DISTRIBUTION FACTORS?

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Abstract - Green consumption is always a hot topic for the contemporary marketing. Although green consumption has been well-recognized in the developed countries decades ago, this trend is still new in some developing countries. Thus, this study was designed to understand the green consumption in Vietnam, a developing country with great population. Then, main factors that affecting the consumers' purchasing decision for green product, especially the organic rice in the Vietnamese were identified. By using the factor analysis technique, the influences of health, affordability, package, and distribution factors on the consumers' purchasing decision were analysed with 249 Vietnamese consumers. The results demonstrated that affordability concerns have the strongest impact on the decision to buy organic rice, followed by health concerns and package concerns that will gradually decrease with the magnitude of the impact. However, offline distribution does not strongly impact consumers' decision to buy organic rice in Vietnam because customers are turning to online distribution. Based on the research results, some policy implications are proposed for producers, businesses and organizations trading organic rice products in Vietnam.

Keywords - Organic Rice, Purchasing Decision,Vietnam, Health, Affordability

I. INTRODUCTION

Purchasing organic food is a complex process when it comes to people's decision-making. This process involves many factors based not only on good taste or visual appeal but also on consumers' environmental characteristics and where the individual was born and raised (Wheeler, 2008). Organic productions including huge demand for organic rice, it has potential and achieves a high price in the global market (Setiyadi et al., 2017). Research reveals that users buy organic food because they want to avoid the chemicals used in conventional manufacturing (Hazra et al., 2016). The use of pesticides in manufactured products is believed to be associated with unknown and long-term effects on consumer's health (Gomiero, 2018). Demand for organic rice continues to grow; the opportunities are becoming more common in rice market (Sriyanto, 2010; Sumarwan et al., 2013). As a result, many developed countries promote sustainable farming through a shift from to conventional method to the organic method of farming (Gomiero et al., 2011). Nowadays, with the diversified development of agriculture, organic rice is also one of the food sources that make it difficult to make the right choice in each family's meal. Rice is an important and useful industrial crop for half of the world's people, mainly in Asia. It supports a wide range of nutrients, fiber, protein, carbohydrates and vitamins for everyone's body (Nicholls and Altieri 2012). Vietnam is the world's second-largest domestic rice exporter and consumes (Quang and Ha, 2021). Vietnamese consume 14.26 million tons (96 million people, each person 96.6 kg of rice/year) (Ministry of Agriculture and Rural Development, 2021). Organic rice production in Vietnam is increasing sharply due to increasing consumer demand, despite its very high price compared to conventional rice (current organic rice prices in Vietnam range from VND30-70 thousand/kg depending on quality (Organica, 2022). In this study, the author focuses on the factors that positively or negatively affect the decision to buy organic rice inVietnam.

Several research papers on organic foods focus on consumers in the United States and continental Europe (Willer and Lernoud, 2018). Prior studies also found that the quality of organic food are considered a critical factor in the food choice and consumption. Because people are always looking foreating foods with specific flavors, fragrances, textures, or appearances (Clark, 1998; Meiselman and MacFie, 1996).However, studies on factors affecting the decision to purchase organic food in Southeast Asia are limited, especially in Vietnam. So, this study will focus within the setting of Vietnam, a developing Asian nation where the green market is developing quickly.

The literature shows that consumer decisions in purchasing generally go through 5 stages namely, identify demands, find information, buying, evaluate alternatives and post- purchase evaluation (Engel et al., 1995; Kotler and Amstrong, 2001; Hawkins and Mothersbaugh, 2007; Sumarwan, 2011; Tjiptono and Diana, 2019). In fact, consumers often do not go through these five stages, most studies only focus on quality, demographics and tastes (Sumarwan et al., 2013), but the importance of products' health, packaging and distributionchannels were not sufficiently highlighted.

From the above-mentioned research gaps, this research was to understand main factors that influences the organic rice purchasing decision in the case of Vietnam – a developing Asian country. Especially, the authors will investigate the effects of factors like health, packaging, and distribution channels and answer the following researchquestion:

What are the factors affecting organic rice purchasing decisions of citizens in Vietnam?

The paper is organized of five main sections. Section one introduces the problem and describes the primary purpose of this research. Section two is the literature review through behavior and consumption analytics' conceptualization and it is essential for the organization. Section three explains the research methodology. Section four explicits main resutls of exploratory factor analysis (EFA) and multiple regression to answer the research question. Finally, the authors will discuss the results with prior studies, and then give implications for the stakeholders.

II. LITERATURE REVIEW

Purchasing decision of organic rice

Purchasing decision is the process that is formed by the consumer after they has evaluated all the alternatives when choosing a product and has arranged them in a hierarchy. It can be viewed asa special process of cost and benefit analysis. Consumers often buy the best product in their opinion, so it can influence the difference between intention to buy and actual purchase decision. It is the attitude of relatives and friends that will change the purchase decision(Chakraborty, 2017).

According to Honkanen et al. (2006), organic rice is the food produced to a certain standard without the use of pesticides, herbicides, inorganic fertilizers, antibiotics, and growth hormones. Organic foods are officially regulated by the United States Department of Agriculture (USDA). Based on the World Health Organization (WHO), organic food is produced based on natural farming or breeding systems, without using fertilizers and pesticides, herbicides, and antibiotics chief (Davis and Winter, 2006). Therefore, organic rice is also known as natural food or healthyfood.

Health & purchasing decision of organic rice

According to the knowledge of health as nutrition, the health of organic food is identified by its nutritional value. Sometimes called “functional discourse” or “nutrition”, this approach is rooted in the biomedical understanding of health and the scientific domain of human nutrition (Chrysochou et al.,2010). Another research that people tend to purchase organic food more regularly since they are more consideration about family wellbeing (McEachern & McClean, 2002; Pearson et al., 2011; Ureña et al., 2007. The empirical research of Bagher et al. (2018) confirmed that health consciousness has a positive impact on the decision to purchase on organic rice, followed by taste and size of the grain. Based on a literature review by Sivathanu(2015) that nutritional factors in organic rice also affect purchasing behavior. Because conventional rice products have less micronutrient content with better nutritional value than organic rice (Marinari et al., 2006). Hence, when using organic rice, it will be good for the health of consumers. Organic have a better macronutrient profile with lower fat content than other alternatives. Since there isa belief that organic rice has beneficial effects on healthy, it has the potential to become a new trend in the consumer market (Sivathanu, 2015). Thus, we propose the hypothesis H1 asfollow:

H1*: Healthy positivelyaffects on the organicrice purchasing decision.*

Affordability & purchasing decision of organic rice

Price is the cost that consumers has to pay and therefore plays an essential role in their decision. Recent study showed that when consumers choosing a store to purchase, price was frequently cited as a significant influence (Pavlinska, 2022). Therefore, organic product pricesaffectconsumerdemand(Yinetal.,2010).Tran et al. (2019) found that the high selling price hinders consumers' purchasing decisions.If product prices are relatively higher than conventional products, consumers are less likely to purchase them (Kavaliauske and Ubartaite, 2014). Thepriceoforganicricerangesfrom$2.07/kgto$3.25/kg and averages 6kg/month, and the one with low glycemic index content is expensive (Zhen, 2013). Although the prices are high, the customers continue to buy the organic rice if they still can afford for it (which we call as “affordability”) because of the benefits. Similar results were found in Sumarwan et al. (2013) when most consumers (71%) continued to purchase organic rice despite rising prices. Generally, it has been mentioned that consumers are willing to pay high prices for the required attributes they are looking for (Hanis et al., 2012) if they can afford for it. Thus, the hypothesis H2 in this study is as follow:

H2: *Affordability positively affects the organicrice purchasing decision.*

Distribution & purchasing decision of organic rice

Distribution is also an issue that the company must consider at any time; the company must have an excellent strategy to anticipate the limitations of distribution. Timely distribution has the potential to enable consumers to make immediate purchasing decisions (Peter et al., 1999; Munson & Hu, 2010). A distribution channel is a group of interdependent parties involved in delivering a product or service; they are ready to be used or consumed by consumers or businesses (Suharno and Sutarso, 2010). Research

conducted by Paul and Rana (2012) provides empirical evidence that organic rice distribution significantly influences purchasing decisions with common factors being convenience, conspicuous product location and service delivery. Therefore, the hypothesis H3 is asfollow:

H3: *Distribution positivelyaffectsthe organicrice purchasing decision.*

Packaging & purchasing decision of organic rice

Packaging is essential in making shipping easier, protecting and wrapping the product. They also use it for promotional purposes, to differentiate the product from other brands. Packaging also serves as a toolbar to attract potential customers because it tells consumers information about the product and its quality, which leads to more customer attraction (Silayoi and Speece, 2007). According to Dickieson and Arkus (2009), packaging technique or materials used can influence consumer's decision to purchase organic rice. Concerning the previous research at the time of purchase, all purchase decisions are made about 70%. Therefore, packaging means the marketing communication that a client receives when reviewing a product (Rettie & Brewer, 2000). With the previous study that in the case of undecided consumers; the package becomes important in purchasing choice because it conveys information to the consumer during the decision-making time (Silayoi and Speece, 2007). Moreover, the printed information includes all information related to ingredients, prices, and descriptions to help identify the organic rice brand. This helps the customer to make the right decision to purchase the product (Shah et al., 2013). Therefore, the hypothesis H4 in this research is asfollow:

H4: *Package positively affect the organicrice purchasing decision.*

Control variables

The importance of control variable in consumers' purchasing decisions tends to change through individual characteristics such as age, income, education,... so on (Diamantopoulos et al., 2003). So consumption and purchase decision of organic rice have various choices. This was confirming by the findings that women tended to be more health conscious than men (Ureña et al., 2007). Another previous research that the largest percentages of respondents who know about organic rice hold a bachelor's degree (Ibrahim and Sothornnopabutr, 2006). In particular, young people in general with high incomes have a higher decision to buy organic rice products and are willing to pay a higher price for such products as supported by (Ueasangkomsate and Santiteerakul, 2014). Thus, these variables will be included in the study.

Based on the above-mentioned hypotheses, the authors propose the following conceptual framework:

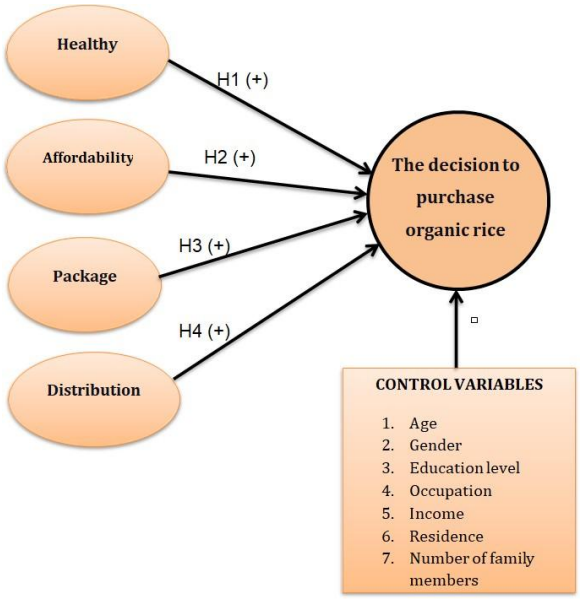

Figure 1: Conceptual framework Source: Collected by the author

III. METHOLOGY

Sampling and Participants

The studyused factor analysis to determine main factors influencing purchasing decision, as this method is considered highly scientific and rational (Evans, 1986). By applying the snowball sampling technique via online questionnaires throughout Vietnam, mainly in Ho Chi Minh City and Hanoi, the survey reached consumers groups from September to November 2022. Fromtheoriginal 75consumers invited by the authors, the responses returned were 268, much larger than the minimum sample suggested by Hair et al. (2010) ($n \geq 28$ observed variablesx5=140).However, only 249 responses were brought into the analysis due to the attention violation.

Out of 249 responses collected, the number of males (46.4%) was slightly lower than that of females (53.6%), which proves that the genders of male and female are pretty. Most of the respondents were in the age group of 30-39 years old. Highly educated individuals were more interested in organic issues, which consist to the literature that green consumers are normally high educated (Nielsen, 2018). A big part of consumers were low income, and in the Southern of Vietnam. Details were depicted in the Appendix 1.

Procedure and Measurement

Prior to the main survey taken from Google Forms' Online Survey system, 20 participants were surveyed for the pre-test. They all were voluntary, mainly to check whether the question could be understood well, and the results did not suggest any corrections.

All the items measuring scales were inherited from the literature, and were included in the section 2 of the questionnaire, whereas section 1 was questions about demographic characteristics. *Healthy*was measured by an eight-item scale of Lockie et al. (2002). An example item for this scale was "I pay attention to the diet health of my family members and myself". For *affordability*, 5-item scale from Fornell and Larcker (1981) was used, with an example item of "Organic rice is affordability my budget". Five items to examine the package impact on purchase decisions on organic rice were used to measure the *Package* factor (Dickieson and Arkus, 2009). Finally, *Distribution* was measured with five items from Paul and Rana (2012). All items were measured on a 5-point Likert scale, ranging from "1 = Totally disagree" to "5=Totally agree" (Mcleod, 2019).

IV. FINDINGS

Descriptive Statistic

Scale	Item	N	Minimum	Maximum	Mean	SD
Purchasing decision	PDI	249	1	5	2.96	1.299
	PD2	249	1	5	3.34	1.198
	PD3	249	1	5	3.51	1.192
Healthy	HC1	249	1	5	4.00	.900
	HC2	249	1	5	4.20	.929
	HC3	249	1	5	4.11	.903
	HC4	249	1	5	4.03	.844
	HCS	249	1	5	4.10	.920
	HC6	249	1	5	3.96	.919
	HC7	249	1	5	3.95	.930
	HC8	249	1	5	4.00	.994
Affordability	A1	249	1	5	3.69	.944
	A2	249	1	5	3.74	.958
	A3	249	1	5	3.68	.984
	A4	249	1	5	4.11	1.024
	A5	249	1	5	3.82	.988
Package	P1	249	1	5	3.71	1.015
	P2	249	1	5	3.96	.983
	P3	249	1	5	3.79	1.065
	P4	249	1	5	3.94	.931
	P5	249	1	5	3.83	1.003
Distribution	D1	249	1	5	3.95	.915
	D2	249	1	5	3.93	.880
	D3	249	1	5	3.80	.997
	D4	249	1	5	3.75	1.144
	D5	249	1	5	3.30	1.308

Table 1: Descriptive Statistics
Source: SPSS 22.0

From Table 1, most items relating to independent variables had received good judgments from consumers as the mean value normally greater than 3.5 (over the 5-point Likert scale). That is, customers tend to agree with the factors that affect their decision to buy organic rice in Vietnam. However, the mean value of the dependent variable (purchase decision) has an approximate range of 2.96-3.51, meaning that customers have a neutral opinion on the purchase decision.

Cronbach's Alpha

Since the scales were inherited from the literature, they may not totally fit to the context of Vietnam. Thus, before conducting the factor analysis process, the authors check the scales' reliability in the context of Vietnam by checking the Cronbach's alpha values. All of the scales had good reliability when the Cronbach's alpha ranging from .702 (Purchase decision) to .865 (Healthy factor) and none of the items has the corrected item-total correlation less than .3. Hence, the scales had good reliability for subsequent steps (Bland, 1997).

Exploratory Factor Analysis (EFA)

Since the items were reliable, they were brought into the analysis with EFA. After 3 times of running the EFA, 3 items of D1, D2, and HC7 were eliminated due to low loadings (<.5) and loading onto two factors.

The final EFA results is illustrated in Table 2. The KMO coefficient was .912 (≥.5), and the Bartlett'stest was significant too (Tabachnick et al., 2001). Five factors were extractedat the Eigenvalue of 1.021.

Furthermore, the total interpreted variance for the factors extracted was 50.186% > 50%; therefore, the EFA result can explain most of the variance. Since items in each factor had changed, Cronbach's alpha values were obtained again and the reliability of scales were good (Table 2)(Fornell and Larcker ,1981).

Factor and items	Loadings				Cronbach's alpha
Healthy					**.854**
HC1. Huge market potentialinVietnam	.665				
HC2. Pay attention to thediethealth	.650				
HC6. I worry about the type and amount of nutrients in the food that I consume every day	.645				
HC8. Organic rice has more vitamins and minerals than conventional rice	.629				
HC3. I am interested in cholesterolandfat.	.620				
HC4. Organic rice has lower chemical residues thanconventionalrice.	.614				
HC5. It scares me to think that most of the food I eat is contaminated with pesticides	.567				
Package					**.860**
P3. Packaging was a big factor in my decision to buyorganicrice		.694			
P4. I trust information like ingredients on organicfoodlabels		.692			
P1. The packaging/appearance of organic food is very appealing to me so I want to buyit		.671			
P2. Packaging material for product packaging is animportantfactor		.646			
P5. I trust the organic certification logo on organicfoodlabels		.567			
Affordability					**.823**
A1. Organic rice istooexpensive			.715		
A4. High price but worth theproductvalue			.696		
A2.Onlysuitableforhigh-incomeconsumerscanbuyorganicrice			.668		
A3. Organic rice is NOT inmybudget			.577		
A5. I am willing to pay a higher price to buy nutritious, natural or safe rice			.527		
Distribution					**.759**
D3. Organic rice is only available in certainspecialtystores				.744	
D4. The stores that I shop regularly don't sell a variety oforganicrice				.622	
D5. I usually buy rice through thesupermarketdistribution				.533	
Purchase Decision					
PD2. How much more are you willing to pay for organic food, compared to conventional alternatives?					.848
PD3. How many times have you consumed organic food in the past 7 days?					.638
PD1. How much have you spent on organic rice in the past 7 days?					.531

Table 2: Results of EFA

Extraction Method: Principal Axis Factoring.
Rotation Method: Varimax with Kaiser Normalization
Source: Collected via SPSS 22.0

Multiple regression analysis

After performing the EFA analysis, scales were calculate the composite value before entering to the multiple regression analysis. With the $F_{(4, 244)} = 4.858$,

p =.001, the ANOVA result showed that the model was good fit with multiple regression analysis. Multicollinearity also did not exist among independent variables since the VIF values were small – Table 3.

Variables	Standardized Coefficients (*β*)	Collinearity Statistics (VIF)	Hypotheses
Healthy	.163**	1.690	Confirm H1
Affordability	-.183**	1.044	Partly confirm H2
Package	.148**	1.785	Confirm H3
Distribution	.088	1.576	Reject H4
Gender	*.327***	1.028	
Age	*-.053*	1.548	
Education	*.095*	1.149	
Income	*-.047***	.822	

Table 3: Results of Multiple regression analysis

*Note:**, *** are p<.05, p<.001 accordingly*

Table 3 also revealed results of multiple regression analysis, in which Healthy, Affordability, and Package had significant impacts on the purchasing decision of organic rice in Vietnamese consumers. More specific, both Healthy and Package concerns have a positive impacts, thus leading to the confirmation for hypotheses H1 and H3. For Affordability factor, although it had a significant impact on the purchasing decision, but this is a negative impact, not positive one as hypothesized in the hypothesis H2, and led to a partially confirmation of H2. Surprisingly, the results rejected hypothesis H4 which meant that Distribution did not show a significant impact on purchasing decision. In addition to the main effects, impacts of control variables were also examined. It was found that only gender and income affected the decision to buy organic rice at the 5% significance level.

V. CONCLUSIVE DISCUSSIONS

The regression results show that **Affordability** has the highest influence to the consumers purchasing decision. However, contrary to expectations, it has negative impactsrather than positive ones on purchasing decision of organic rice in Vietnam. Sumarwan et al. (2013) explicated that 71% consumers in their study would continue to buy the organic rice they usually buy despite rising prices. However, in Vietnamese context, things may a little bit different. The price of organic rice in the Vietnamese market is quite high, making it challenging to suit all classes of consumers, and maybe most of consumers still cannot afford for organic rice.But they may still purchase it even though they can afford for it for long term. This finding is consistent with the assumption that the high price of organic rice make consumers consider it as a luxury products, and worth to try once if possible. Zhen (2013) revealed that the price of organic rice has higher about 10%-15% than the price of conventionally products. Thus, this price may be still good enough to try as a luxury products, although they cannot afford it for long-term.

For the effects of **Healthy,** this is the second most substantial factor that impact on the decision to buy organic rice of Vietnamese consumers. Prior studies argued that people tend to buy organic food more frequently since they pay more attention to family health (McEachern & McClean, 2002; Pearson et al., 2011; Urena, Bernabeu, & Olmeda, 2008). They also purchase organic foods for an expectation of a healthier manufacturing processes (Sangkumchaliang & Huang, 2012), or higher nutritional (Sivathanu, 2015). The literature also contended that health consciousness is a significant driver of organic food purchases in Asia, especially as consumers relate to residues from synthetic chemicals used in agriculture (Roitner et al., 2008). The confirmation of a positive effect of Healthy concern on Vietnamese consumers would also enrich the findings prior studies, and consolidate the importance of Healthy characteristics of organic rice inVietnam.

For **package,** Silayoi and Speece (2007) suggested that the packaging technique or material used can affect consumers' choice of organic rice. In packaging, it could be the structure, the designer (e.g. an empty designer to see the content of the product), the materials, or even the instructions (simple and easy) for the consumer's usage (Dickieson and Arkus, 2009). Package also can build a contact channel between the consumers and business (Rettie & Brewer, 2000) or creating the trust from consumers via certificate endorsement on the package(KementrianPertanian,2008).By supporting Hypothesis H3, this study also consolidate the role of package in convincing consumers to purchase products with a new context of Vietnam.

Surprisingly, **distribution** does not significantly affect the purchasing decision of organic rice in Vietnam, and contrary to findings of Paul and Rana (2012). Paul and Rana (2012) provide empirical evidence that the distribution of organic rice significantly affects purchasing decisions, with

common factors being convenience, conspicuous product location and service provided grant. The availability and market access are recognized to significantly influence consumer purchasing decisions for organic rice (Paul and Rana, 2012). In Vietnam, however, a non-significant effect of distribution might come from many causes. Firstly, althoughorganic rice has been introduced in the Vietnamese market for many years, consumers might still have low familiarity with it.Secondly, the outbreak of Covid-19 pandemic has shifted the shopping habit of consumers from traditional stores with huge distributional channel to online shopping without a specific stores (Kim, 2020). Thus the role of distribution channel might be mitigated.

Academic implications

The study has revealed critical factors influencing the decision to purchase organic rice and documents responsible consumption with an empirical study in the Vietnamese context. Firstly, it consolidate the important roles of affordability, healthy and package in affecting the consumers purchasing behavior (Sumarwan et al., 2013; Sangkumchaliang & Huang, 2012). However, by portraying a negative effect of affordability, and a non-significant effect of distribution, the study has highlighted some venues for future researches, especially in investigating the importance of affordability and distribution in purchasing organic rice, or broader, in purchasing organic products.

Managerial implication

In this research, affordability is the most significant variable to thrive and bring organic rice in Vietnam growing stronger. Consumers consider affordability very important. However, a negative relationship might suggest that businesses can promote organic rice as a luxury products that people should try several times, even though they cannot afford for it in long term. Setting the price strategythat make consumers have the sense of excellent product might be an effective solution.

The following important effect is the health concern; it is the concern for people in health when consuming rice products in every meal. It means that they know the knowledge and resources that organic rice will bring to the consumers, and chemicals and pesticides in the rice will generally affect the health value. To solve this issue, Policymakers should provide more information on healthy value of organic rice to consumers in Vietnam. Besides, the manufacturer needs to invest in modern technology by a friendly process in the organic farming process. The rice product is made from the proper preparation for safety, the nutrients for customers. Organic rice cannot be used with pesticides, herbs, fuel, or chemical fertilizer to ensure the rice is proper. In addition, the customer experience department needs to have the customer's assessment, based on the set-up process to promptly handle and handle thequality.

The next influencing factor is the package concern that affects consumers' decisions about the material and image of the packaging containing organic rice, and they support advertising and plans towards organic rice consumption. The Research Department is encouraged to plan to work with the packaging manufacturer to create bags from organic and high-preservation materials. In addition, business directors need to build trust in customers' hearts, build a set of criteria and ensure product traceability. The design department needs to create labelled branding as a practical measure, the certification logo to help consumers get helpful and reliable information in the organic rice market, and the rice bags should be colored harmonious colors to attractconsumers.

Societal implications

In this study, the findings will help stakeholders in the organic rice industry, such as sellers, farmers, producers,…soon.Theywillunderstandthebasicmodelo fwhatfactorsinfluenceconsumersonthe sale of rice. Buying organic rice leads to more rigorous marketing decisions and strategies. Especially in order to come up with a solution on a global scale, the Government and the Minister of Agriculture should put in place policies that are rigorous in encouraging producers to assist in providing subsidies and enforcing policies creating a favorable environment for the organic rice industry to develop. Create regular seminar programs to promote sustainable agriculture to ensure that organic rice products are sustainable in terms of health quality and affordable forconsumers.

Moreover, the balance of affordability is the deciding factor that people will consume more organic rice to promote the growth of the rice market. Furthermore, the production of organic rice in Vietnam is limited despite Vietnam ranks sixth in the world in terms of rice manufacturing and third in terms of rice exports (VIR, 2022). The authors suggest that the Department of Agricultural Product Processing and Market Development director under the Ministry of Agriculture and Rural Development (MARD) should provide more information about organic rice, helping consumers understand the product's value and consumer perception of actual demand for organic rice. Besides, promoting farmers to deploy more organic rice production models than conventional rice to bring more health to the people. By promoting good organic farming and accepting organic farming following international standards. This can be done by various parties such as governments, non-profit organizations, or other stakeholders such as savvy consumers. As a result, increasing farmers' incomes, value of rice grains, conserving and restoring the environment, and improving the quality of health of the Vietnamese people in the direction of organic.

Limitations and future perspectives

Although this study provides many contributions, it has limitations that require further investigation. First, the research is limited because it only conducted online surveys mainly in Ho Chi Minh City and Hanoi, not representative of other provinces in Vietnam. As a result, there are differences in how consumers in different contexts respond to the nature of consumers in different regions (Hofstede, 2012). The authors recommend that future research should be more extensive, the survey sample should be focused on provinces in Vietnam to clarify which factors affect the decision of consumers to purchase organic rice. Second, the snowball sampling technique was used for data collection. Although this method is very suitable for the authors to select the segment (students, employees,…soon) based on the purpose of the study, it conveys specific problems in sample control when the gender series introduction began (Biernacki and Waldorf, 1981). To account for customer heterogeneity in future studies, the author should use stratified sampling. Third, Vietnamese people now tend to shop more online, this study focuses on offline distribution channels, which has limited the impact on people's decision to buy organic rice in Vietnam. The authors propose that future research should be studied to turn the distribution channel into an online distribution suitable for the 4.0 technologies and globalization.

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APPENDIX

Appendix 1: Socio-demographic Profiles of Respondents

Characteristics	Frequency (n=249)	Percentage (%)
Gender		
Male	116	46.6
Female	133	53.4
Age		
≤ 18	0	0
19-29	21	8.4
30-39	121	48.6
40-49	86	34.5
≥ 50	21	8.4
Education		
Secondary school	0	0
High school	1	.4
Colledge or University	210	84.3
Bachelor	34	13.7
Post-graduated	4	1.6
Occupation		
Student	61	24.5
Employee	90	36.1

Freelancer	76	30.5
Housewife	24	9.6
Children in the family		
Yes	137	55
No	112	45
Monthly Income (VND)		
< 5,000000 VND	45	18.1
5,000,000 VND – 19,000,000 VND	112	45
19,000,000 VND - 29,000,000 VND	69	27.7
≥ 30,000,000 VND	23	9.2
Region		
South	120	48.2
Central	49	19.7
North	80	32.1

★★★