

Factors Influencing Consumer Intention to Purchase Organic Food in Ubon Ratchathani Province, Thailand

ปัจจัยที่มีผลต่อความตั้งใจซื้ออาหารเกษตรอินทรีย์ของผู้บริโภคในจังหวัดอุบลราชธานี ประเทศไทย

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Abstract

The trend of consuming organically produced food is highly determined by market demand both domestically and internationally. Therefore, this research aims to reflect on consumers' perceptions and attitudes influencing consumer intention to purchase organic food in Ubon Ratchathani province, Thailand. This research gathers on a survey of 385 respondents in seven difference places where organic food is sold in town. Organic food buyers are majorly female who concentrates in the working age population from 31 years to 50 years old but occasional buyers tend to be younger with age below 31 years old.

Results indicate that the two primary reasons to purchase organic food are an expectation of having a healthier and environmentally friendly means of production. Frequent organic buyers tend to have better education, higher income and are more likely to have at least one infant at home. Furthermore, organic vegetable and fruit, rice and herbal drinks are most highly demanded. However, the lack of knowledge towards organically produced food is one of the major obstacles to increase the market share of organic food in Thailand.

Keywords: Organic Food, Consumer Behavior, Purchase Intention, Ubon Ratchathani

บทคัดย่อ

แนวโน้มของการบริโภคอาหารเกษตรอินทรีย์ถูกกำหนดโดยความต้องการของตลาดทั้งจากในประเทศและต่างประเทศ ดังนั้นงานวิจัยเรื่องนี้มีจุดประสงค์เพื่อสะท้อนให้เห็นถึงการรับรู้และทัศนคติของผู้บริโภคที่มีอิทธิพลต่อการซื้ออาหารเกษตรอินทรีย์ในจังหวัดอุบลราชธานี ประเทศไทย งานวิจัยเรื่องนี้มีผู้ตอบแบบสอบถามทั้งหมด 385 คน ซึ่งได้เก็บแบบสอบถามจากสถานที่จำหน่ายอาหารเกษตรอินทรีย์ 7 แห่งในพื้นที่ ผู้บริโภคอาหารเกษตรอินทรีย์ส่วนมากเป็นเพศหญิง อยู่ในวัยทำงาน อายุระหว่าง 31-50 ปี แต่ผู้บริโภคที่บริโภคอาหารเกษตรอินทรีย์เป็นครั้งคราวจะมีอายุน้อยกว่า 31 ปี

ผลการวิจัยชี้ให้เห็นว่าสองเหตุผลหลักที่ทำให้ผู้บริโภคต้องการซื้ออาหารเกษตรอินทรีย์คือ ความมุ่งมั่นที่จะมีสุขภาพที่ดีขึ้นและกระบวนการผลิตที่เป็นมิตรต่อสิ่งแวดล้อม ผู้บริโภคที่ซื้ออาหารเกษตรอินทรีย์เป็นประจำ มีแนวโน้มที่จะมีการศึกษาในระดับที่ดี มีรายได้สูงและมีความเป็นไปได้อย่างมีบุตรในวัยทารก ยิ่งไปกว่านั้น ผักและผลไม้ ข้าวและน้ำสมุนไพรที่เป็นผลิตภัณฑ์เกษตรอินทรีย์ มีความต้องการทางตลาดสูง อย่างไรก็ตาม การขาดความรู้ความเข้าใจต่อสินค้าเกษตรอินทรีย์ของผู้บริโภค เป็นหนึ่งในอุปสรรคที่ส่งผลต่อการเพิ่มส่วนแบ่งทางการตลาดของอาหารเกษตรอินทรีย์ในประเทศไทย

คำสำคัญ : อาหารเกษตรอินทรีย์ พฤติกรรมผู้บริโภค ความตั้งใจในการซื้อ อุบลราชธานี

Introduction

Advance in agricultural technology and farming practice significantly alter the availability of agricultural products in the past 70years. Increasing production, decreasing seasonal dependence together with rising income level, dramatically change the food consumption pattern. Besides, the rising production and declining food price also bring intense competition in the marketplace, and food safety became a major concern for the government body and legislators. With several high profile food-related disease in both developed economy and emerging market (Henneberry, Piewthongngam, & Qiang, 1999; Tiensin et al., 2005; Wang, Mao, & Gale, 2008), the demand for safety food has grown substantially throughout the world (Michaelidou & Hassan, 2008; Yeon Kim & Chung, 2011).

The global market for organic agricultural products has been expanding rapidly, and it is adjusting from a niche to a mainstream market (Willer & Lernoud, 2016). Global sales of organic food have grown at a healthy rate over the last decade. The market has expanded almost five-fold since 1999. According to the Research Institute of Organic Agriculture (2017), the estimation of the worldwide organic market is at \$US81.6 billion. With the increasing popularity of organic

food, there are also growing interest on the academic studies among the globe to address the consumer perception and consumer behaviors towards organic food consumption (Krystallis & Chryssohoidis, 2005; Thompson, 1998; Żakowska-Biemans, 2011). However, the majority of the studies were concentrated on developed economies such as the United States, European Unions, and Taiwan, studies on organic food consumption in emerging markets are limited.

Though several articles address this topic in Thailand (Pomsanam, Napompech, & Suwanmaneepong, 2014; Roitner-Schobesberger, Darnhofer, Somsook, & Vogl, 2008; Sangkumchaliang & Huang, 2012), but those studies were conducted in the more developed regions such as North and Central parts of Thailand. Studies concerning consumer demand for organic food products in the low-income region are still underdeveloped. Therefore, this research aims to address this missing gap through the study of organic food consumption in the Northeast part of Thailand.

The authors choose Ubon Ratchathani Province to conduct the study due to the following two reasons. First, Ubon Ratchathani Province is the third largest province of Northeast in terms of population; Second, out of all the 20 provinces in Northeast area, Ubon Ratchathani province rank the 3rd in terms of GDP, and the 9th in terms of GDP per capita. The median position of Ubon Ratchathani province in the economic wellbeing and the large population make it a good representative of the Northeast region of Thailand.

Objective

The aim of this study is to shed light on consumer behavior and their attitudes towards purchasing of organic food. More specifically, the main objectives of the study are:

- 1) To increase understanding of consumers' awareness, attitude, and perceptions towards organic food consumption in Ubon Ratchathani province of Thailand
- 2) To identify factors affecting consumer intention to purchase organic food in Ubon Ratchathani province of Thailand
- 3) To provide useful and insightful information to organic food's stakeholders (i.e., organic food producers, organic food sellers, and government) for better understanding of consumer and their purchasing behavior in order to serve the right products with the right marketing strategies.

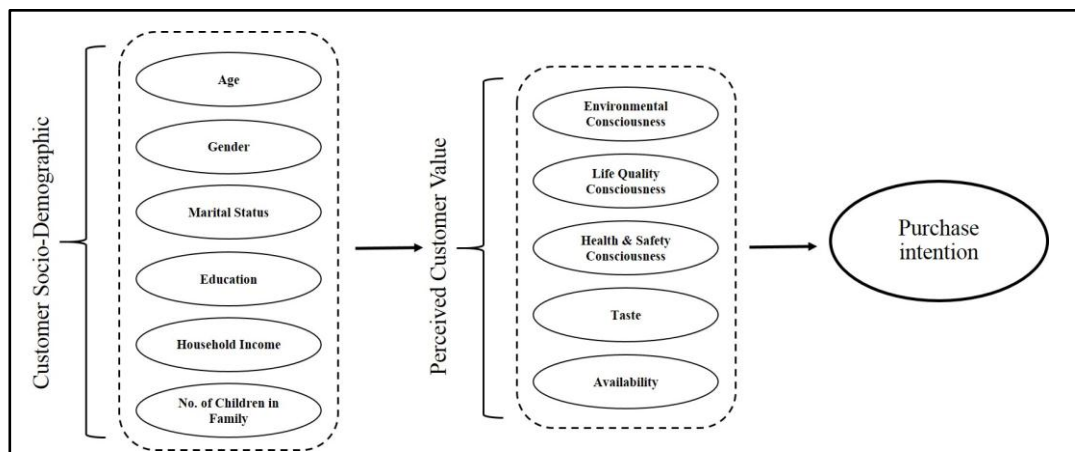
Conceptual Framework

This part presents the conceptual framework developed by the researchers. Smith (2004) stated that the conceptual framework as a set of ideas and principles that aid researchers to properly analyze the problems they are looking at, frame their questions and find relevant literature. This conceptual framework is designed to find the impact of various independent variables on the dependent variable. According to Sekaran (2003), the dependent variable is the primary interest to the researchers, and the independent variables are the ones that either positively or negatively influence the dependent variable. Based on the previous studies identified several factors that influenced consumer purchase intention concerning organic food. However, the researcher intentionally selected five variables (environmental consciousness, life quality consciousness, health and safety consciousness, taste, and availability) from the previous research models to develop the conceptual framework in this study.

This study is aimed at analyzing the important factors influencing consumers purchase intention concerning organic food in Ubon Ratchathani province of Thailand. In developing the conceptual framework, a brief discussion of each chosen factor that may have an influence on consumer purchase intention of organic food is slightly presented in the literature review. The dependent variable of this research model is purchase intention toward organic food, and the independent variables of this study are environmental consciousness, life quality consciousness, health and safety consciousness, taste, and availability.

In conclusion, this research focuses on the factors which influence the intention of consumers to purchase organic food in Ubon Ratchathani province of Thailand. Five factors are drawn from past literature reviews, and all dimensions are mainly related to socio-demographic variables.

Table 1 Conceptual Framework



Literature Review

Through the concept of organic foods are well-known for householders, the general knowledge of organic food still lacks in the society, many people heard about the term “organic” but has little knowledge of the meaning, some are not familiar with the organic label if it does not specifically mark the term “organic” (Roitner-Schobesberger et al., 2008). Moreover, the awareness of organic food and its benefit does not necessarily translate into actual consumption (Briz & Ward, 2009).

Environment and animal welfare concern are reasons for some people to shop organically. Consumers who are concerned about environmental issue and involved in green practices are more likely to buy organic products when organic produces are believed to be environmentally friendly (Chen, 2007; Harper & Makatouni, 2002; Lockie, Lyons, Lawrence, & Grice, 2004; Magnusson, Arvola, Hursti, Åberg, & Sjöden, 2003; Voon, Ngui, & Agrawal, 2011).

Another prevailing reason for organic food consumption is life quality consciousness as people are looking for cleaner and more natural products (Krystallis & Chrysosoidis, 2005; Padel & Foster, 2005; Zanolli & Naspetti, 2002). Especially, consumers who practice healthy lifestyle show their preference for organic food products (Cicia, Del Giudice, & Scarpa, 2002; Gracia & de Magistris, 2007). Closer related to life quality consciousness, consumers’ willingness to pay towards organic food also reflects their health and safety concern. The growing recognition of pesticide on human health and the perceived risk of Agro-biotechnology triggered organic food consumption in both developed and developing countries (Rimal, Moon, & Balasubramanian, 2005; Roitner-Schobesberger et al., 2008; Sangkumchaliang & Huang, 2012; Yin, Wu, Du, & Chen, 2010). Several studies have also found ‘taste’ to be among the most critical criteria in organic food purchases (Kihlberg & Risvik, 2007; Lea & Worsley, 2005; Padel & Foster, 2005). Hill and Lynchehaun (2002) suggest that customer tend to assume the positive association between price and quality and perceive organic food tastes better than conventional.

Aside from the reason for purchase, prior research also identifies that the most critical obstacle for organic food consumption is lack of availability and organic food's relatively higher price compared to conventionally produced food (Fotopoulos & Krystallis, 2002; Magnusson et al., 2003; Zanolli & Naspetti, 2002).

Research Methodology

A questionnaire was designed to gather exploratory data on factors influencing consumer purchase intention of organic food. The questionnaire was pre-tested in English, then translated into Thai and pre-tested again. Before translated back into English to ensure that the questions had retained their original meaning (Roitner-Schobesberger et al., 2008). The questionnaire was divided into three sections. The demographic information of respondents was collected in the first part; in the second part of the questionnaire, the respondent who has indicated that he/she was aware of organic food were asked about their experience regarding organic food consumption. The last part of the questionnaire, the respondent's opinion towards organic food was accessed.

The questionnaire was distributed through June 2018, five supermarket stores and two greenmarkets were selected in Ubon Ratchathani Province for the interview as they are the primary distribution channels for organic food items. Seven members of the team were selected and trained to administer the questionnaire personally to 385 customers. In order to reduce the potential bias in sample selection, the questionnaire was distributed on the random base in three different periods, 10:00 to 12:00 a.m., 14:00-16:00 p.m., and 18:00-20:00 p.m. Though it is not clear that the sample is representative enough for the overall population, this survey still provides a certain ability to reveal the factors affecting organic food consumption in the Northeast part of Thailand.

The collective data were summarized using descriptive statistics. To analyze differences between consumer types, the respondents were divided into four groups: those who did not aware of organic food, those who aware but had never purchased organic food; those who had seldom purchased organic food (less or equal to 2 times per month), those who had frequently purchased organic food (more than 2 times per month). The factors measured in this study are Environmental Consciousness, Life Quality Consciousness, Health and Safety Consciousness, Taste of product, and Availability of product. Each factor has multiple statements to reconfirm the respondent's understanding regarding the factor. Moreover, those factors were subjected to a Principle Component Analysis (PCA).

Conclusion

The demographic data presents the most demographic variables change among groups. Female dominate the purchasing decision in the household among consumers with

knowledge about organic food (55.7% for occasional buyers, and 69.9% for frequent buyers), the result is consistent with the traditional social norm in Thailand as female are required to be responsible for family diet. Moreover, organic food buyers are majorly concentrated in the working age population, ranging from 20 years to 60 years old, but the result indicates that the frequent buyers tend to be older than occasional buyers with 53.5% of the frequent buyers ranging from 31 years to 50 years old compared with 35.4%. Conversely, occasional buyers tend to be younger with 40.7% of occasional buyers below 31 years old.

Concerning education and income, organic food buyers tend to have better education and higher income, especially for frequent buyers, they tend to hold a bachelor's degree or higher (50%), and with income level higher than 20,000 baht per month (45.3%). Moreover, organic buyers are more likely to have at least one infant at home, with 38.4% for frequent buyers and 34.1% for occasional buyers, compare with 12.9% for non-buyers. These findings are largely consistent with prior findings in western economies, suggesting organic consumption, despite gradually gain popularity, still limited to the particular social class range due to the availability issue and premium price (Davies, Titterton, and Cochrane, 1995; Garcia-Yi, 2015; Lockie et al., 2002)

Table 2 *Prefer Organic Products Among Customers*

Variables	Occasional Buyers 167	Frequent Buyers 146
Vegetable	86.20%	86.30%
Meat	28.10%	32.90%
Rice	41.30%	45.20%
Grain	19.80%	29.50%
Herbal Drink	36.50%	50.70%
Ingredient	15.60%	26.70%

The respondents reported as organic buyers were also asked what their preferred organic food category is (See Table 2). The result is consistent for occasional buyers and frequent buyers as vegetable and fruit, rice, and herbal drink ranking the top 3, with vegetable and fruit category listed as the most frequent purchase type (86.2% for occasional buyers, and 86.3% for frequent buyers). Moreover, the organic cooking ingredient is the least favored organic food category, with 15.6% of occasional buyers and 26.7% of frequent buyers report ever purchasing this category.

The respondents, who had purchased organic food, were presented with 42 statements under five categories and asked whether they agree or disagree regarding the statement. The statements were measured in five-point agreement Likert-type scale variables with end-points 1 = strongly disagree and 5 = strongly agree. The factors measured in this study are Environmental Consciousness, Life Quality Consciousness, Health and Safety Consciousness, Taste of product, and Availability of product. Each factor has multiple statements to reconfirm the respondent's understanding regarding the factor. Moreover, those factors were subjected to a Principle Component Analysis (PCA). It yielded four principal components with an eigenvalue greater than 1. Together they explain 62.75% of the variance (Table 3).

The four principal components indicate that there might have four main motives for purchasing organic food: out of environmental concerns, out of life quality preference, out of the health and safety concerns, or because of availability of the organic food. The degree of cohesion within each component showed that all the principal components have an acceptable alpha (more than 0.7 for all components) and thus displays an excellent internal consistency. The component of Taste of product shows a low communality value with less than 0.4 thus excluded from the principal component analysis. Which is contrary to the findings documented in the prior literature (Kihlberg & Risvik, 2007; Lea & Worsley, 2005; Padel & Foster, 2005), suggesting Thai consumers, particularly those located in the Northeast part of Thailand, do not purchase organic products out of the taste concern.

Table 3 Principal component analysis of the motivations for organic food purchase

Principal component analysis of the motivations for organic food purchase				
Principal component name	Percent explained variance	Cronbach's α	Items	Factor Loading
Environmental Consciousness	43.98%	0.878	I dispose of my garbage in different containers	0.862
			I practise environmental conservation tasks such as planting tree, using natural made products and recycled products	0.732
			Unless we do something, environmental damage will be irreversible	0.727
			I prefer organic food over conventional food because I have general knowledge about the organic production	0.711
			I prefer organic food because it is a natural food	0.69
			Organic agriculture enhances soil fertility and biodiversity	0.558
Health and Safety Consciousness	7.29%	0.79	Organic food label and safe food label make me trust that organic foods are safe	0.795
			Organic food label and safe food label are trustworthy	0.781
			People around me generally believe that it is better for health to consume organic food	0.669
			An organic food dish gives me a sense of security	0.483

Life Quality Consciousness	6.65%	0.897	I prefer fresh products to canned or frozen products	-0.773
			I prefer organic food because it is processed without any chemicals	-0.711
			Organic food is fresher than conventional non-organic food	-0.678
			I prefer organic food as no preservatives are used to enhance its shelf life	-0.647
			I prefer organic food as it causes less disease than conventional non-organic food	-0.569
			I prefer organic food because it is more nutritious than conventional non-organic food	-0.522
			Organic food is of superior quality than conventional non-organic food	-0.515
Availability of product	4.84%	0.805	Organic food is easy to find	-0.849
			I aware of organic food from advertising and public relation	-0.767
			Organic food is having many choices of product	-0.746
			I always look for specialty shops to repurchase organic food	-0.69

Table 4 The Significance of Influencing Factors Towards Consumer Intention to Purchase Organic Food

	Number of Respondent	Occasional Buyers	Frequent Buyers	Significance of the difference between the groups
	313	167	146	
Environmental Consciousness	313	3.98	4.15	***
Health and Safety Consciousness	313	4.11	4.25	***
Life Quality Consciousness	313	4.27	4.35	ns
Availability of product	313	4.05	4.09	ns

* Significance *** = $\alpha \leq 0.5$; ns: not significant

The questions' answers are summated to measure the four factors. The result reveals the difference between two different groups of respondents (Table 4). The frequent buyers tend to agree more on the organic agricultural practice as they appear to agree more on the environmental consciousness compare with occasional buyers. Another primary motive for frequent buyers is the health and safety reason, and both factors are significant at the 0.05 level. Though frequent buyers display higher mean on both Life Quality Consciousness and Availability of Product compare with occasional buyers, both factors are insignificant.

Discussion

In line with the profile in other region of Thailand, and developed economies (Briz & Ward, 2009; Chen, 2009; Lea & Worsley, 2005; Rimal et al., 2005; Roitner-Schobesberger et al., 2008), the consumers for organic food in Northeast region of Thailand tend to be older, hold an academic degree, and have a higher income than those not purchasing organic food or have no knowledge about organic food and organic practices. Moreover, among the organic food buyers, age seems to associate with the frequency of purchase, with occasional buyers tend to be younger and frequent buyers tend to be older.

The organic food consumption tends to concentrate on categories such as vegetables and fruits, rice, and herbal drink, which suggest that consumers aware of pesticide adaptation in the regular farming practice and choose organic food categories directly affected by the pesticide problems (Briz & Ward, 2009; Chen, 2007; Magnusson et al., 2003; Zanolli & Naspetti, 2002). The primary motivation for organic food consumption is two-fold. First, people consume organic food majorly concerns on the organic farming practice as its more environmentally friendly, the similar result also addressed in several studies both domestically and internationally (Rimal et al., 2005; Roitner-Schobesberger et al., 2008; Yin et al., 2010). Second, health and safety consciousness also affects people's consumption of organic food. As a result of the investigation of Lockie et al. (2004) on Australian consumers suggest, health is the one aspect consumers are least willing to compromise.

Moreover, unlike prior studies conducted in developed economies, Thai consumers, especially consumers located in North-eastern region of Thailand, does not hold the view that organic food has a superior taste but rather consume organic food out of the concern on the environmentally friendly farming practice and the safety consciousness.

Recommendation/ Implication

The authors provide a recommendation to further research to conduct the survey in the whole region in order to present more accurate result and aggregation as this information will benefit the community, farmers, and those who are interesting in the agricultural business in order to imply the right marketing strategies to the right customers. Moreover, it will enhance insight knowledge and perception of customers for Thai organic food's producers and sellers to generate the highest profit and fulfill customers' satisfaction. In the aspect of academic, it will add up a gap of the past research in Ubon Ratchathani which focused only on customers'

demographic factors affecting to organic food consumption whereby important factors from their perceptions had been omitted.

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