

# An Evaluation of Buying Behaviors and Perceptions of Organic Vegetable Consumers in Chiang Mai Province

Somdech Rungsrisawat

**Abstract**—The purpose of this research is to study of consumer perception and understanding consumer buying behavior that related between satisfied and factors affecting the purchasing. Methodology can be classified between qualitative and quantitative approaches for the qualitative research were interviews from middlemen who bought organic vegetables, and middlemen related to production and marketing system. A questionnaire was utilized as a tool to collect data. Statistics utilized in this research included frequency, percentage, mean, standard deviation, and multiple regression analysis. The result show the reason to decision buying motives is Fresh products of organic vegetables is the most significant factor on individuals' income, with a b of  $-.143$ ,  $t = -2.470$ , the price of organic vegetables is the most significant factor on individuals' income, with a b of  $.176$ ,  $t = 2.561$ ,  $p$  value =  $.011$ . The results show that most people with higher income think about the organic products are expensive and have negative attitudes towards organic vegetable as individuals with low and medium income level. Therefore, household income had a significant influence on the purchasing decision.

**Keywords**—Consumer behaviors, Consumer perceptions, Organic Vegetable.

## I. INTRODUCTION

NOWADAYS organic foods market has become one of the rapidly growing sectors of most developed agricultural economies around the world, especially in the European Union. The marketing forecast in 2003 expected that worldwide organic agricultural retail businesses are increasing.

Trend of organic agriculture market around the world was expanding rapidly with 15% - 20% of average growth rate per year. Besides, the marketing pattern of organic agriculture was adjusting from a niche market to main stream market. Europe is now the biggest market for organic food in the world, expanding by 25 percent a year over the past 10 year.

German wants to make 20 percent and UK market grew by 55 percent in 2010, while the food market as a whole grew by only one percent. Organic foods are growing in popularity as people are becoming more aware of the impact that their concern about safety food issues [1].

A growing demand for quality guarantees their goal in meeting growing consumer needs and desires for organic food while many supermarket chains stopped selling the product.

Dr. Somdech Rungsrisawat is with Faculty of Management Science, Suan Sunandha Rajabhat University, Bangkok, Thailand (phone: 6641462907; fax: 6621601491; e-mail: Somdech.ru@ssru.ac.th).

The emerging of organic food in Thailand has resulted from a combination of trends. The increasing public awareness of healthy living. Consuming natural and safe foods is seen as important for both preventive and curative health care, leading to a growing concern and demand for safe foods, especially among urban middle classes with higher disposable incomes. Organic foods are seen as the safest option as they are perceived as having low or zero contamination by agrochemicals [2].

The rise of environmental awareness, starting from a concern for environmental protection and conservation, but later transforming into a broader agenda covering the impact of conventional agriculture on environment, ecology and biodiversity, including land use, landscape, biodiversity, and pollution caused by use and misuse of agrochemicals.

Thai cuisine reflects the climate and the crops of the people hot and spicy, rice-based. Core ingredients of a basic meal are spicy relishes served with raw or cooked vegetables with fish, and a soup of bamboo shoot and pork. Meals are served with plenty of rice. Regional specializations reflect climate and lifestyle differences.

Vegetables were the first to come to mind when the participants talked about food because they are beneficial in terms of high vitamin content, high in fiber, and ease of digestion. The lifestyle of northern Thai people has changed, traditional eating styles, migration can also increase changes in culture, influencing the people returns to natural food, and environment concern their eating behavior. Organic food is the one of natural product of consumptions choose, most family participants in Chiang Mai need food for three reasons

Good health, to reflect custom, and express socioeconomic status. On the other hand, some people concern the body that is affect to diet and their believed it has numerous health benefits which the organic food diet contains fewer trans-fat and saturated fat than the typical western diet. These properties are associated with a reduced risk of diseases such as heart disease and cancer For example; a study published in the journal of nutrition found the consumption of raw food diet lowered plasma total cholesterol and triglyceride concentrations [3].

Consumer behavior is purchase first days of each month, following many consumers' monthly payday but fresh market is purchase two or three time per week. Hypermarket consumers choose from at least three levels of expensive vegetables: the first level consists of "selected" vegetables, the second consists of 'doctor'-level vegetables, and the third

level consists of 'Royal Project' vegetables. Thus, the number of organic food consumer in Chiang Mai is increasing due to the increasing attention to health concerns and quality.

Demand will also become more differentiated in variety, quality, safety, and convenience. For example specialization in "safe" or "organic" vs. regular vegetable production is a growing area of value-adding market differentiation. As little is known consumer perception of organic foods in Chiang Mai. Although awareness for "health food" has developed during the recent years due to health problem caused by contact with or consumption of pesticide residues on fruits and vegetables, organic products still are considered a product for the upper class and for foreigners necessary to transport more information to, local customers in order to develop the local market [2].

Consumer buying behavior is nowadays one of the most important elements in marketing, it is the study of how consumers perceive a product and perform the decision. Before any product is presented or launched, marketers need absolutely to learn about the consumer behavior and especially what influences them most during their purchasing and awareness behavior, the author study is about analyzing the consumer awareness and purchasing behavior that influence decision making situations.

Most previous studies have been descriptive in nature, consumer willing to pay for organic produce, who buys organic food, and purchase motivation and attitudes of organic food, etc. Mostly previous studies have been research organic food or organic produce that is a few specific organic vegetable, and a few empirical searches have focused on measuring how much food safety the consumer wants or is willing to pay for. Other hand, previous studies searched the area in EU, USA, and few Asia areas [4].

For the area in Thailand, there have been descriptive in only Bangkok. All people everywhere possess the same values, but to different degrees. The differentiate one culture from another area is the ranking of different values. This is most obvious between cultures like America and Europe, or Asia and Europe. However there are also significant cultural differences within Europe.

The researcher is need for better understanding of consumers 'perception and buying behavior for organic vegetable. The aim of this study is to address the questions and to help provide the needed information. Results of the study should provide insights to develop products and marketing strategies can be effectively and successfully.

## II. LITERATURE REVIEW

Conceptual background and literature review provide an overview of previous research, it should search have been continuously conducted since after the topic of study was set. In this chapter, the theoretical base for this research is supported by a discussion of previous studies and previous research relevant to the constructs of interest and their proposed relationships.

The second section is defining the organic products. Next, the dimension of buying motives. The fourth focus is empirical

studies on motives to consume organic products. In the final section is presented conclusion and implications [2].

### A. World Market for Organic Food

The organic and natural, it's important to understand the main differences then as regulator and referring to foods that may have minimal processing. Organic agriculture is based upon a systematic approach and standards that can be verified and are recognized internationally. On the other hand, natural foods have no legal recognition, and are not based on a systematic approach. While natural products may generally be minimally processed, there are no requirement to provide proof, leaving open the possibility for fraud and misuse of the term.

Present-day organic agriculture has materialized a focus that, besides offering the possibility of producing safe food, advocates a responsible attitude towards the environment. Organic foods are growing in popularity as people are becoming more aware of the impact that their food choices have not only on their own personal health but also on the environment in which they live. For the consumption and demand of organic foods worldwide continues to grow. Organic foods are the fastest growing segment of the food business in the United States.

Currently, organic food is a 14 billion dollar business, expected to grow to 23 billion dollars in the next several years. No longer just a niche market, both organic food and the organic consumer are becoming a larger part of the mainstream.

This has some important implications for food producers and processors. Yet the expected growth in the market share of fresh organic produce in supermarket failed to materialize in the early 1990. The International trade Centre, the Worldwide demand for organic foods was estimated at \$US45 billion in 2007 and growth at around 12.5% in the 2008-2010, with sales reaching \$US60 billion in 2010. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and good quality of life for all involved. Worldwide consumers are looking for "cleaner", more natural, alternative agriculture-issued products. The various reasons that motivate them health, environment, religion, equity, safety, identity-stimulate new agricultural development concepts and give rise to key issues such as fair trade, organic produce [3].

According, the consumption of organic food is concentrated in Europe and the United States (U.S.), but the production of certified organic products is scattered worldwide. U.S. production and domestic consumption of organic products continues to increase. Organic farming systems rely on ecologically based practices, such as cultural and biological pest management.

The international statistic on organic production are compiled by the Research Institute of Organic, part of the U.S. Department of Agriculture, agricultural land were being managed organically by farms in 119 countries in 2005-06. The U.S. ranks fourth behind Australia, China, and Argentina in certified organic land. The domestic market for organic

products is expanding modestly in China and other developing countries. Most of the countries with the fastest growth in organic production—including China, Bolivia, Chile, Uruguay, and Ukraine—produce organic products primarily for export. Organic agriculture is showing strong growth in the United States consumption for organic products. On the other hand, markets for organic vegetables, fruit, and herbs have been developing for decades in the United States, and fresh produce is still the top-selling organic category in retail sales [4].

#### B. Market for Organic Food in Thailand

Organic agriculture is the most dynamic and rapidly-growing sector of the global food industry. The Thai Government has repeatedly underscored its policy of support for organic farming, announcing in a cabinet resolution on 4 January 2005 its goal to transform Thailand's agriculture and to increase the importance of organic production systems.

The emerging popularity of organic agriculture in Thailand has resulted from a combination of trends. Consuming natural and safe foods is seen as important for both preventive and curative health care, leading to a growing concern and demand for safe foods, especially among urban middle classes with higher disposable incomes.

Organic foods are seen as the safest option as they are perceived as having low or zero contamination by agro-chemicals.

The trend is the rise of environmental awareness, starting from a concern for environmental protection and conservation, but later transforming into a broader agenda covering the impact of conventional agriculture on environment, ecology and biodiversity, including land use, landscape, biodiversity, and pollution caused by use and misuse of agro-chemicals. The area under organic farming in Thailand increased from just over 2,100 ha in 2001 to 21, 70 [5].

In some areas, an alternative revolution succeeded in focusing more on quality, an approach that has been driven by downstream demand (supply of niche markets). This alternative green revolution has generated the offer of alternative foods such as organic and traditional products for both local and export markets. The most important example is provided by the success of the Thai jasmine rich, but many other items could be mentioned, from organic vegetables to traditional chicken. There are a number of highly professional growers who have invested significant amounts in protected cultivation systems that look to benefit from the high value niche of organic markets overseas. These professional companies use evaporative cooling and retractable shade systems to keep greenhouse. For demand for organic food has increased over the past few years. The increase in demand for organic foods reflects a general trend in consumers desire for quality trend in consumers desire for quality products, It is confirmed that worldwide consumers are looking for "cleaner" that are perceived to be environment, healthful, nutritious, and safety, identity-stimulate new agricultural development concepts and give rise to new key issues such as fair trade, organic or "local" produce.

### III. METHODOLOGY

Methodology can be classified in various ways, however one of the most common distinctions is between qualitative and quantitative approaches are applied in research, as well as inductive and deductive reasoning. In quantitative research was originally developed in the natural sciences to study natural phenomena. Qualitative research was developed in the social sciences to enable researchers to study social and cultural phenomena. Qualitative data sources include observation, interview and questionnaires.

The objective of this research is to give a general overview of the consumer perception and understanding consumer buying behavior of organic food in Chiang Mail offering has become a focal point in preparing this research. Thus, the researcher will here focus on exploratory research is conducted into research problem follow by this conceptual framework [4].

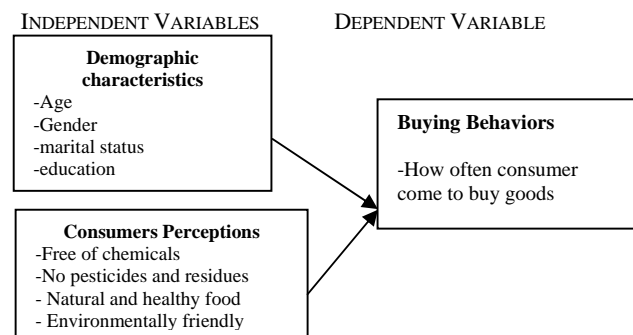


Fig. 1 Research Conceptual Framework

### IV. FINDINGS

The results show that motives in Thailand is found to be Health is the first then theirs determine in buying, and motives in Western countries is the same, the second is good environment in Thai and good for children/family in western countries, the third is lower resides [5].

TABLE I  
DESCRIPTIVE FOR THE INDEPENDENT VARIABLE

| Evaluation Awareness of Organic (n=500)    |              |              |
|--|--------------|--------------|
| What comes to mind when you hear the word? | Aware        | Unaware      |
| Free of chemicals                          | 347<br>69.4% | 153<br>30.6% |
| No pesticides and residues                 | 335<br>67.0% | 165<br>33.0% |
| More nutritious                            | 321<br>64.2% | 179<br>35.0% |
| Natural and healthy food                   | 411<br>82.2% | 89<br>17.8%  |
| Environmentally friendly                   | 395<br>79.0% | 105<br>21.0% |
| Strictly controlled                        | 291<br>58.2% | 209<br>41.8% |

Health concerns are strong motivating factors in organic vegetables in Thailand and Western Countries. There are

believed organics are healthier and consider organics consumption as a way to protect the environment and are good for my children/family.

The ranking of barriers to non-buying organic products the first is too expensive in Thailand and Western countries, the second is the most consumption in Thailand don't know what organic mean but the most consumption in Western countries worry about the organic product is chemical residues or not, the third the most consumption between in Thailand and Western countries worry about the same barriers is not many organic products in the market and they are too difficult to get the organic products [6].

The mean scores of motives to purchase organic products, the 7 item with each item is measured a five point scale, the average mean scores of Health in Thailand and Western countries is 4.17 and 4.57, good for children/family is 4.03 and 4.48, lower residues 4.05 and 4.13, fresher is 3.72 and 3.00, good environment is 4.15 and 3.99, better taste is 3.43 and 4.02, other in Thailand is 3.14 of Trendy/fashionable and 3.44 of for diet but in Western countries worry about animal welfare 3.80 and appearance 3.29.

On the other hand the mean scores of barriers to decision purchase and non-buying organic products the 7 item with each item is measured a five point scale, the average mean scores of too expensive is 4.12 in

Thailand and 4.53 in Western countries, don't believe product no chemical or not mean is 2.99 and 3.98, difficult to get mean in Thailand is and 3.92 mean in Western countries, anything special mean is 2.90 and 2.34, don't trust the label mean is 3.42 and 3.53, the some non-buying in Thailand don't know what organic mean 3.99 and don't buying organic because hygienic or safe product is enough for them 3.62.

The purpose of this research is to give previous research based on literature review which included the consumers' perception of organic food and differences in motives and barriers of organic food in Western and Thailand studies from differences in cultural. Influence of cultural dimensions was partly confirmed and that only for individualism. This study was aimed at comparing consumers' motives for buying organic food in the Western countries and Thailand. The ranking is comparing and shows that motives to buy organic products are difference presented in organic [5].

Products situation of this statement strongly motivated by societal well-being, such as environment protection and society development the ranking number 2 in Thailand was good environment). On the other hand, individuals in societies high on individualism and assertiveness will be stronger motivated by their own well-being, so health, better taste, lower residues and good for family would be assumed prime motives for these.

The researcher assumes the reason that the Thailand, as a Collectivist culture, would place more emphasis on others' opinions rather than on their own beliefs; while the Western countries would show more individual-oriented results. Results pointed away for Thailand and Western countries chose rather homogeneous individualistic some motives [7].

## V. DISCUSSION

The organic food market has become one of the most rapidly growing sectors of developed agricultural economies around the world. Especially, Europe is one of the biggest markets for organic food. In the future, the consumption and demand for organic food worldwide is estimated to further grow, since consumers are still concerned about food safety. The largest production category in Thailand is fresh vegetables from the northern regions. In Thailand, the term organic food is virtually synonymous with "healthy food". From marketers perspective it is important to understand which factors makes the customer buy organic products.

The customer demand within the next years will become more differentiated in terms of variety, quality, safety, and convenience; thus, understanding of the customers and factors impacting their choice becomes even more crucial for company success. As few research is available on the perception of organic food in eastern countries and even less is known about buying motives and barriers of customers in Chiang Mai, Thailand.

Researcher study intends to explore the perception and motives of organic food consumers in the region and identify potential differences between Thailand and Western countries. The purpose of this research is to examine the consumer behavior, consumer perception, personal-social-psychological This research is qualitative and quantitative research which qualitative method based on information collecting from questionnaires.

## VI. RECOMMENDATION AND FUTURE STUDIES

This research was conducted in Chiang Mai Province, mostly focus in urban areas. Therefore, the results may not reflect the behavior, motivation and barriers of consumption in rural areas as well as not represent overall country, notably when comparing with other countries. There is a few research in Thailand related to organic products and there is no prior research about organic vegetables. It is also difficult to explore the background and other information regarding the consumption and current situation about organic products in Thailand as well as in Northern region. The collected sample was mostly concentrated on age range between 31-40 years old and income between 20,000-40,000 Baht. Few in-depth interviews all related stakeholders such as farmers, middleman and manager were employed. All results depended on data analysis from questionnaires.

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