

THE CHALLENGES IN ORGANIC AGRICULTURAL PRODUCTS MARKET IN SOUTHEAST ASIA

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ABSTRACT

Global organic production has increased significantly over the past decade. However, still some questions remain about any market for organic products especially in Southeast Asian countries. Organic farmers find some problems in selling their organic products for a good price due to certification labelling. While consumer wants to buy an organic product with a reasonable price, to receive an organic label certification requires cost high which lead to high selling price. This review presents an over view of problems and challenges in marketing organic agricultural products which draws attention to two key issues: (1) labeling (organic certification) and (2) consumers preference on organic products.

Keywords: Organic farming, Organic certification, Organic agricultural products market

INTRODUCTION

There is an increase in environmental awareness, food safety and health due to the impact of the use of external inputs in agriculture. Organic farming and organic foods are seen as one solution for this. What makes organic agriculture unique is that using synthetic inputs are prevented and improving soil fertility must be maintained to reduce weeds, pest and disease problems (FAO, 1999). Rigby and Caceres (2000) suggest that organic farming is one of several approaches to achieve sustainable agriculture. Organic farming is believed to maintain the sustainability of agricultural systems and adapt to climate change (IFOAM, 2009; FAO, 2011; and Tadeo and Baladad, 2012). Hole *et al.* (2005) have proposed that organic farming is seen as a right solution to solve the global problems of loss of biodiversity. Furthermore, several studies have shown that organic farming is socially and ecologically sustainable (Pacini *et al.*, 2003; Pimentel *et al.*, 2005; Sukristiyonubowo *et al.*, 2011; and Todorova and Ikova, 2014). Organic farming also can be used as a tool for productivity and poverty reduction in Asia (Giovannucci, 2007), as is resulting improvement in the socio economic condition of the farmers (Scialabba *et al.*, 2003). Organic farming can contribute to local food security (Scialabba and Hattam, 2002) and to global food supply (Badgley *et al.*, 2006). Although it has been stated that organic farming is productive and sustainable, several studies asserted that there is a need for strong support in terms of agricultural extension services and research (Reddy, 2010), support on technology and policy (Lernoud *et al.*, 2015) and it should consider the regional

differences and farmers preference (Patil *et al.*, 2014).

The increase in global organic production leads to export opportunities for large scale farms. A demand for new organic products has been created (Soil Association, 2014). Although a detailed market data for organic products are not available for all countries, in general the organic products market is continually growing (Lernoud *et al.*, 2015). However, problems remain in marketing the organic products for organic farmers who do not have organic certification yet and have lack of access to the market.

This is especially so for small scale farmers in developing countries, especially in South East Asia, even though they are supported by the government, community and NGO (Hong, 1992; Suh, 2015; Wai, 2014; Hsieh, 2011; Mayrowani, 2012; Takada *et al.*, 2004; Ariesusanty, 2015; Mutiara and Arai, 2015).

Our hypothesis is that small and marginal farmers find it difficult to meet the requirement for certification, lack of support for distribution channel of organic products and difficult to meet consumers satisfaction (buy organic products with label with reasonable price).

METHODOLOGY

A literature search was carried out by using science direct Web (<http://www.sciencedirect.com/>). Published papers and reports (FAO and IFOAM) are mainly used for this review. In order to provide understanding, a basic standard of organic farming by IFOAM is given. We provide a qualitative review of 54 studies

from 1990 - 2015, in order to identify our hypothesis in the challenges of organic agricultural products market.

THE ORGANIC PRINCIPLE

FAO (1999) defines organic agriculture as *'a holistic production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles, and soil biological activities. It emphasizes the use of management practices in preference to the use of off-farm inputs, taking into account that regional conditions require locally adapted systems. This is accomplished by using agronomic, biological, and mechanical methods, as opposed to using synthetic materials, to fulfill any specific function within the system'*.

One leading international federation which concern on promoting organic agriculture is IFOAM (International Federation of Organic Agriculture Movements). It was established in 1972. IFOAM defines organic agriculture is *'a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic Agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved'*.

IFOAM published regulations to certify organic production, which is needed to obtain organic label. The basic standard for organic production and processing under IFOAM that have been widely adopted by many countries around the world is presented in Table 1. According to IFOAM, there are four basic principles of organic agriculture. 1) Principle of health; Organic agriculture should sustain and enhance the health of soil, plant, animal, human and planet as one and indivisible. 2) Principle of ecology; Organic agriculture should be based on living ecological systems and cycles, work with them, emulate them and help sustain them. 3) Principle of fairness; Organic Agriculture should build on relationships that ensure fairness with regard to the common environment and life opportunities. 4) Principle of care; Organic agriculture should be managed in a precautionary and responsible manner to protect the health and well being of current and future generations and the environment. It is important to note that IFOAM emphasizes that any system that applies organic methods and is based on principles of agriculture as organic agriculture and farmers who implement it are certified as organic farmers.

CHALLENGES IN MARKETING ORGANIC AGRICULTURAL PRODUCTS

There is a different approach in marketing agricultural

Table 1: The principle aims of organic production and processing

- To produce sufficient quantities of high quality of food and other products.
- To work compatibly with natural cycles and living systems through the soil, plants and animals in the entire production system.
- To recognize the wider social and ecological impact of and within the organic production and processing system.
- To maintain and increase long term fertility and biological activity of soils using locally adapted cultural, biological and mechanical methods as opposed to reliance on inputs.
- To maintain and encourage agricultural and natural biodiversity on the farm and surroundings through the use of sustainable production systems and the protection of plant and wildlife habitats.
- To maintain and conserve genetic biodiversity through attention to on farm management of genetic resources.
- To promote the responsible use and conservation of water and all life therein.
- To use, as far as possible, renewable resources in production and processing systems and avoid pollution and waste.
- To foster local and regional production and distribution.
- To create a balance between crop production and animal husbandry.
- To provide living conditions that allows animals to express the basic aspects of their innate behavior.
- To utilize biodegradable, recyclable and recycled packaging materials.
- To provide everyone involved in organic farming and processing with a quality of life that satisfies their basic needs, within a safe, secure and healthy working environment.
- To support the establishment of an entire production, processing and distribution chain which is both socially and ecologically responsible.
- To recognize the importance of, and protect and learn from, indigenous knowledge and traditional farming systems.

Source: IFOAM, 2002

products and organic agriculture products. Acharya (2001) explains marketing agriculture includes 1) performance of physical and institutional infrastructure to transfer products from farmers to consumers, 2) the different prices at different stages of marketing. However, in marketing organic agricultural products, producers should hold necessary guideline for labeling their product as 'organic'; then they can sell the products to the market. A difference on organic market can be seen where small scale organic farmers focus on local markets while larger farmers can aim for global organic market.

In developed countries, the large scale organic firm can hire an organic certification body to annually monitor that their products apply organic standards. The high cost for the monitoring leads to high price. High price of organic product is one of the obstacles for consumers to buy organic products (Marian *et al*, 2014; Falguera *et al* 2012). Arai and Moore (2004) found that mostly organic vegetables and organic fruits are sold in the state of Ohio, United States only because they cannot be kept fresh in long time while other products are sold to out of the state. A research by Mutiara and Arai (2015) in West Sumatra, Indonesia found that traditional organic rice farmers still use a traditional way in threshing paddy and have a long distance to reach their consumers where their paddy field are mostly located nearby a mountainous area (Figure 1). This will contribute to additional distribution cost. According to Essoussi and Zahaf (2012), there are logistics and distribution costs from regionally produced organic products to the market that accounts for high price of organic products.

1) Organic certification

It is generally agreed that demand for organic products is concentrated in certain regions of the world, especially in developed

countries. In addition, it is expected that the number of organic standard to get organic certification will be growing. The certification aims to show and guarantee to consumers that products have been produced in an organic way. Certification and inspection process will provide the link between organic producers and consumers (Rigby and Caceres, 2000). There are various regulations in different countries that apply to certify organic foods. However, labeling is becoming one of the problems for organic farmers. The certification process is complex and need inspection annually in order to keep the certificate. International certification can take much time and be very expensive. At this point, farmers in developing countries find many problems to get the certificate including the cost and applicability of certification (Barret *et al*, 2002).

One cannot deny that producers and consumers will continue to be geographically different places. For example the Asian market is seen by import of large amount of processed organic products to industrialized countries. The retail prices for organic agriculture products become expensive because of the high import cost. Organic products can be five times more expensive than conventional products in Asian markets (Cadilhon, 2009). IFOAM clarifies that there are organic farmers who think that the certification does not have any merits. This is because a small scale farmer who usually practice subsistence farming and have limited production states that the certification has no market value.

A participatory guarantee system (PGS) program, a locally focused quality assurance system, was introduced by IFOAM to certify producers based on stakeholders participation which build on trust, social networks and knowledge. The PGS program allows more appropriate mechanism of certification based on local knowledge and stakeholder's participation which is suitable



Fig.1. Frame (a) Organic rice farmers in West Sumatra, Indonesia, threshing paddy using a traditional paddy thresher made of wooden slats. Frame (b) A farmer performing *Mairiak padi*, a traditional method in threshing paddy using their feet in the paddy field. Frame (c) Paddy fields located in a mountainous area. (Photos from, Mutiara and Arai, 2015)

to small scale farmers. This system has been implemented successfully in Latin America, India and Japan. In Japan, this system is called *Teikei* or the producer-consumer co-partnership. In the *teikei* movement the idea of local self-sufficiency has been grown. The idea is that an independent local unit where organic foods consumed is grown, produced and processed within area, by building support and cooperation between farmers and consumers (JOAA, 1993). The PGS program (in varied descriptions in each country) can play a role in developing consumers' trust in local organic produce which at the same time can eliminate the verification cost (Cadilhon, 2009).

Moreover, it is relevant to note that certification logo plays an important role in marketing. In developed countries, Janssen and Hamm (2012) conducted interviews with organic consumers in the six European countries (Czech Republic, Denmark, Germany, Italy, Switzerland and United Kingdom) and found that consumers trusted organic logo that they knew well. Their preferences are based more on subjective than objective.

2) Consumers preference

Consumers are becoming aware on consuming agricultural products. Millstone and Lang (2008) asserted that the increasing awareness of health and environmental issues has encouraged people to make a lifestyle choice. Consumers may pay more for food which they feel safe and less damaging for environment. Therefore, to involve in organic product market, consumer expectation on organic product is important to understand regarding food buying behavior (Schleenbecker and Hamm, 2013; Rodiger and Hamm, 2015; Shafie and Rennie, 2012). Figure 2 shows that there are many factors that influence consumers' decision on purchasing organic food products. Chrysohodos and Krystllis (2005) used List of value (LOV) to examine organic consumer exploratory food buying behavior in Greece. They found that a number of positive aspect of organic product (health and environmental consciousness) become an important factor in purchasing organic products. Another finding (Basha *et al*, 2015; Ferdi, 2008; Hjelmar, 2011; Witzel *et al*, 2013, Stolza *et al*, 2011) also show that the most commonly stated by consumer to purchase organic products are because of the quality of products, environmental concern and health concern.

A study by Bartels and Reinders (2009) found that there is

a relationship between individual and their social environment in consuming organic food consumption in the United States, The United Kingdom and Germany. In addition, ethical issues such as 'animal welfare' and 'regional production' also attract consumer concern in Europe for purchasing organic products (Zander and Hamm, 2010). Essoussi and Zahaf (2012) assert that there are three types of consumers based on usage rate, trust on purchase, and support for the local economy and the environment. The first type is true organic food consumers. The second type is sporadic organic food consumers. The third type is inexperienced organic food consumer. Figure 3 shows the organic food market dynamics from the demand supply sides related to the three kinds of consumers types.

While there are a number of studies on organic consumers in the developed countries, there are a few studies on consumer perception on organic food in Asia. (Schobesberger *et al* (2008) found that organic food consumers in Bangkok, Thailand believe that organic products are environmentally friendly. However, they cannot clearly differentiate between pesticide safe labels and organic labels. Moreover, Wyatt (2010) found that local consumers in Chiang Mai, Thailand were more concerned about the assurance of the safety of the food they eat rather than the food has international certification. The consumers accepted local standard. In Japan, Kim *et al* (2008) found that Japanese consumers are willing to pay 10% price premium for organic food products (especially for organic premium on beef) compared to conventional products with no specific labeling. Moreover, Japanese consumers preferred to domestic organic products than to imported products, while they do not show any preference for particular imported organic products country.

Regarding the challenges of organic products market, two strategies can be implemented, which are strengthen local demand for organic produce and respond better to local organic markets (Cadilhon, 2009). Consumers also will have a greater awareness on purchasing organic product if there is an appropriate regulation on organic product (Hsu and Chen, 2014). Although it should be noted that public and private standard and regulatory aspect on organic products may have positive and negative outcomes (Falguera *et al*, 2012). In addition, cooperation and commitment are the keys to success rather than competition in marketing organic products (Canadian Organic Growers, 2005).

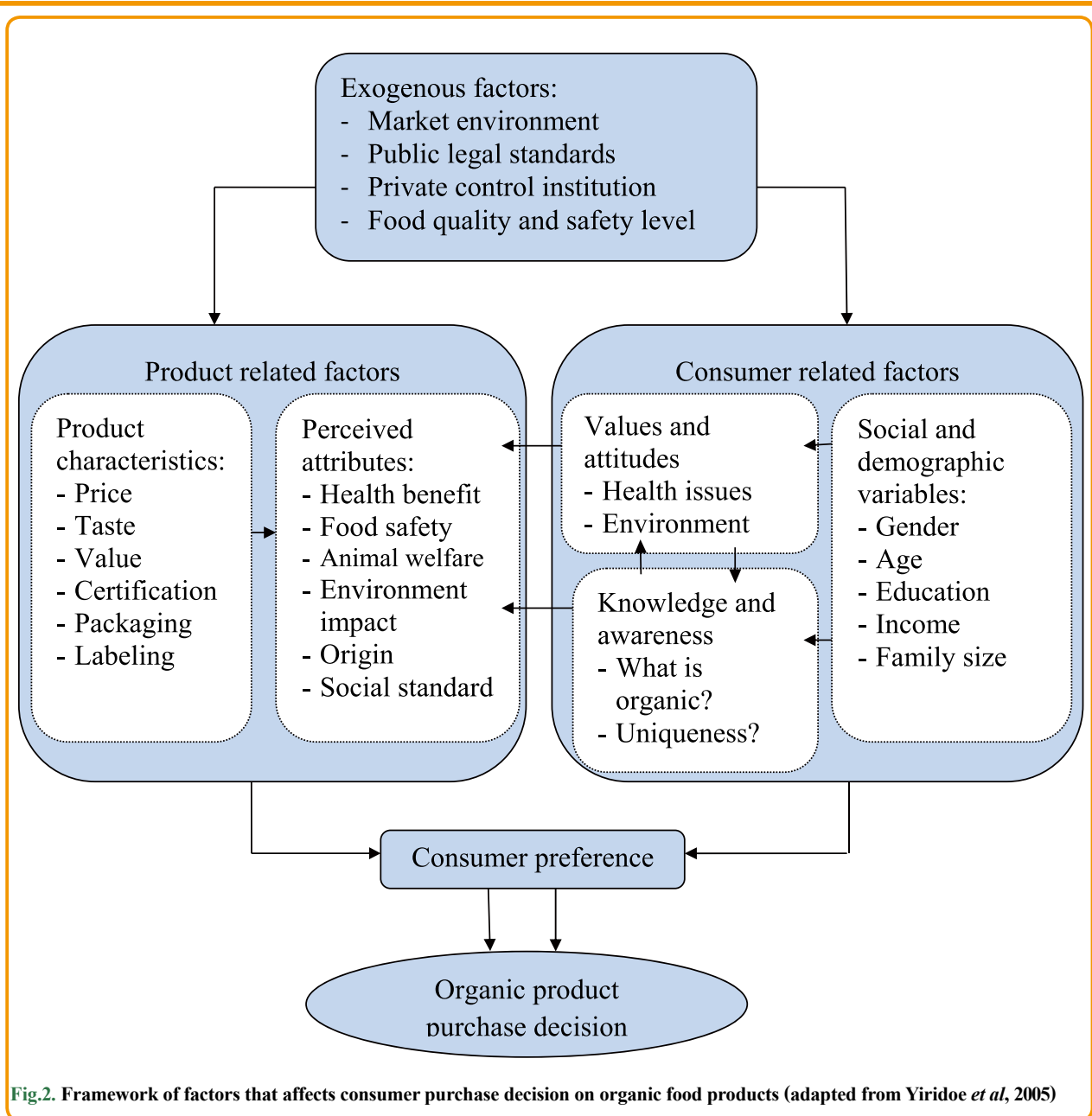


Fig.2. Framework of factors that affects consumer purchase decision on organic food products (adapted from Yiridoe *et al*, 2005)

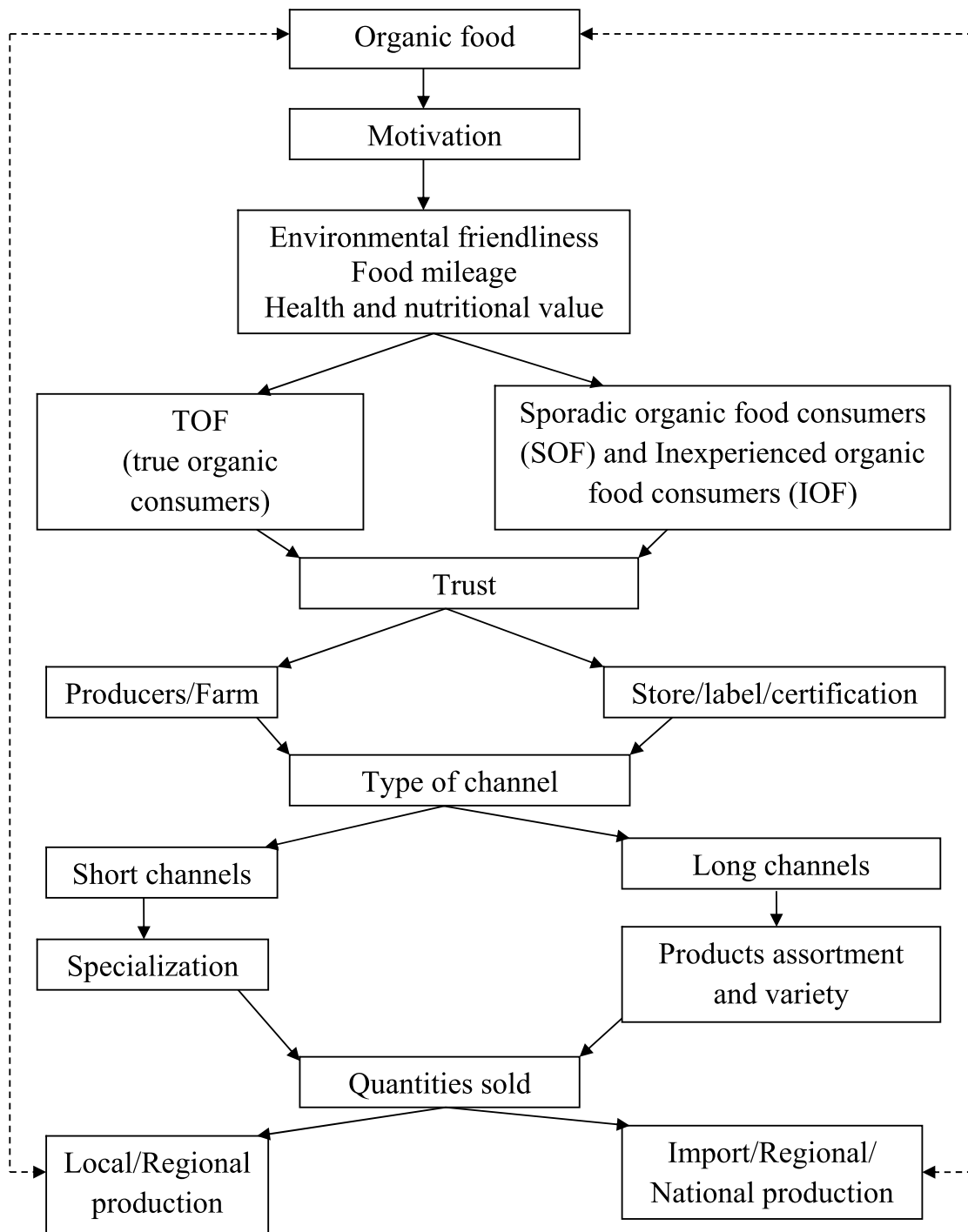


Fig.3. Organic food demand supply model (adapted from Essoussi and Zahaf, 2012)

CONCLUSION

This review sustains our hypothesis that small and marginal farmers find it difficult to meet the requirement for certification, lack of support for distribution channel of organic products and difficult to meet consumers' satisfaction. However, despite the obstacle of organic certification label on organic products, marketing organic products has several opportunities. Organic certification that might become an obstacle for small scale farmers can be resolved by building a communication and trust between farmers and consumers. Farmers will know consumers expectation of their organic products. Where there is direct contact between farmers and consumers, trust can often be maintained without any systematic verification mechanism.

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