

Future Vision of Thai Consumers on Sustainable Food Purchasing

วิสัยทัศน์ผู้บริโภคไทยต่อแบบแผนการซื้ออาหารที่ยั่งยืนในอนาคต

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Abstract

The objective of this research is to investigate Thai consumer perspectives on future sustainable food purchasing and the ways they realize those visions of the future. Transition theory is used as a framework of this study. Four dimensions of socio-technical regime which are market, policy and regulation, culture, and technology were considered. Three groups of consumers were recruited in the focus group discussion; green consumers, non-green consumers, and innovative consumers. The total number of focus group participants was twelve.

The result found that three groups of consumers have different visions on future food purchasing practice. However, some similarities of their future visions on food purchasing were identified. The common future marketing visions included convenience, price reduction, and direct selling with local producers. For policy and regulation, all consumers need effective food control system, fast response, and serious punishment for providers who sell unsustainable foods. The common visions in terms of culture included good food selection, eat various kinds of food, and no left-over food. In terms of technology, all groups of consumers mutually needed sustainable food detector and food waste transformers. These common visions can be used as the input for the future stakeholders' workshop aiming at the short term and long term planning to achieve this food purchasing scenario.

Keywords: 1. Future Vision 2. Thai Consumers 3. Sustainable Food 4. Food Purchasing

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Introduction

Food production and consumption around the world has been intensely changed over the last thirty years (Oosterveer, 2005). In the modern period, food is produced in one area and distributed to other area such as other regions, other countries, and other continents. The mode of food production is totally separated from the mode of consumption in terms of time and space (Giddens, 1990) . One consequence of this global food modernity is that consumers no longer know how food is produced. Since the consumers only buy the final food products on the shelves of the outlets, they wonder about the origin and safety of the food they eat. This leads to contemporary discussion on the consequences of food provisioning in terms of health and environmental issues (O'Doherty et al., 2001; Oosterveer, 2005). Besides, there are many problems in agro-industrial food production such as BSE, GMO and anti-biotic used in animal feeding. These caused increasing anxiety among consumers on safety of food (Stagl, 2002). As a result, consumers' demands for sustainable food has been increased (B. Roitner-Schobesberger, Darnhofer, Somsook, & Vogl, 2008).

The UN provides definition of sustainable consumption that focus on consumers' choice of goods and services, such as food, shelter, clothing, mobility and leisure to fulfill basic needs and improve the quality of life (United Nations Commission on Sustainable Development, 1998). This study builds on these definitions and considers sustainable food as food with benefits for human health, the environment, and social life. This includes food that is organically produced, locally produced, grown without chemicals or pesticides, hygienic, or fairly-traded.

Any increase in the level of sustainable food consumption requires changes from both providers and consumers (Spaargaren, 2003). Providers play a powerful role in creating sustainable food market and lead other actors, such as farmers and producers, in the food supply chain to change their behaviours (Konefal, Bain, Mascarenhas, & Busch, 2007). Consumers are also powerful actors in food supply chain (Bredahl, Northen, Boecker, & Normile, 2001; Caswell & Mojdzuska, 1996; Kinsey & Senauer, 1996). Consumers' demand on sustainable food can change the actions of other market actors to provide more sustainable food in the market (Tanner & Wölfig Kast, 2003). This research studied sustainable food by starting with consumers' perspective. The objective of this research is to investigate Thai consumer perspectives on future sustainable food purchasing and the ways they realize those visions of the future.

Theoretical approach

Transition theory (Geels, 2002) is used as a framework of this study. Transition theory provides multi-level perspective which is useful to understand the complex dynamics of socio-technical changes (Elzen, Geels, & Green, 2004; Geels, 2002; Kern & Smith, 2008). Food consumption system can be considered as socio-technical systems. At the landscape level, consumers' concerns on food safety and food security can be seen as a pressures for change on the regime level and generate opportunities for niches (Smith, Voß, & Grin, 2010).

At the socio-technical regime level, set of rules carried by different social groups is analysed (Elzen et al., 2004). This research considers four dimensions of socio-technical regime which are market, policy and regulation, culture, and technology. At niche level, this study provides interactive space for consumers to create novelty. The new regimes for sustainable food purchasing in 2050 are proposed. The date 2050 was selected as it permits thinking outside current frameworks and the imagination of new behavioral norms without being too far into the future.

Methods

Study area: Sustainable food consumption is endorsed, by the emerging middle classes as well as by higher-educated people (Roitner-Schobesberger, 2006; Wandel & Bugge, 1997). Due to economic expansion (Englehart, 2003), the spread of education and media sector (Ockey, 1999), Thai middle classes have increased in numbers (Falkus, 1995; Scott, Vandergeest, & Young, 2009). In additions, a dynamic population growth has brought about rapid urbanization in Bangkok and resulted in more rush transformation of people's lifestyles (Tanaphoom & Bart, 2015). According to B. Roitner-Schobesberger et al. (2008) and Junpen Rittirong and Vuttichat Soonthonsmai (2016), Thailand can be expected to witness an increasing domestic demand for sustainable food products. Thus, Bangkok, the capital of Thailand is the study area of this research.

Participants and recruitment of participants: The development of novel solutions for more sustainable food consumption practices need the involvement across a range of spheres, tiers and disciplines. Therefore, a spectrum of attendees were recruited. The participants of focus group included consumers from three clusters; 1) green consumers, 2) non-green consumers, 3) innovative consumers. The total of number of participants in a focus group is twelve.

Table 1 Cluster of participants, criteria of selection, and selected participants

Cluster of consumers	Selection criteria	Selected participant	
Green consumers	Actively consume sustainable food for more than one year	1) Male actively consume organic food for 2 years	2) Female actively consume organic food for 3 years
		3) Female actively consume organic food for 4 years	4) Female actively consume organic food for 6 years
Non Green Consumers	Various lifestyles of consumers i.e. young, middle-aged, elder, and mother consumers.	5) Female university student	6) Female working consumer
		7) Female housewife consumer	8) 72 years old male consumer
Innovative consumers	Innovation experts who are working in food innovation agencies and creative agencies	9) Male consumer from food innovation agency	10) Female consumer from food innovation agency
		11) Female consumer from creative agency	12) Female consumer from performance creative agency

The consumers in each cluster were be approached by various technics. For green consumers, there were online communities such as Facebook page that green consumers actively communicate and share lifestyles. The interested people who actively consume sustainable food for more than one year were invited to join the focus group. Non-green cluster consists of various lifestyleless of consumers i.e. young, middle-aged, elder, and housewife consumers. Young generation are more likely to engage in processes which stimulate their internal motivating desires (Hume, 2010; Sheahan & Sheahan, 2005; Sullivan & Heitmeyer, 2008). Elders tend to accept more sustainable food because they are more affordable to pay for premium price (Hughner, McDonagh, Prothero, Shultz, & Stanton, 2007; B. Roitner-Schobesberger et al., 2008; Thun Chaitorn and Yaowapa Pathomsirikul, 2017).

Housewives exhibited a tendency to be more concerned with the impact of their food shopping on other family members (Jackson, McDaniel, & Rao, 1985). In order to recruit non-green consumers, university student association and elder association were contacted requesting them to send participants to attend the focus group discussion. Also, a cold callings with the use of existing personal networks were applied to access the stakeholders, followed by processes of snowball sampling. The balance of age and sex was considered while selecting the applicants. The innovative consumers were recruited by contacting the innovation and food innovation agencies in Thailand as well as people in creative agencies and creative performance studio. The cluster of participants, criteria of selection and selected participants are shown in **Table 1**.

Focus group method: The focus group was divided into three sessions; 1) introductory session, 2) group work, 3) world café. For the introductory session, the focus group began with a presentation outlining the agenda, as well as the trends and changes in food purchasing and the current “unsustainability” of food purchasing. After that, the researcher emphasized objectives and expected outcome of this focus group. The basic goal of the focus group discussion was to generate a large number of concepts that might enable more sustainable food purchasing in the year 2050. In the second session, the participants were divided into 3 mini-groups by their cluster (green consumers, non-green consumers, and innovative consumers). Each group was assisted by a group facilitator. The homogeneous group was firstly organized aiming to capitalize on people's shared experiences. After that, the participants were assigned to think about the future way of food purchasing that can be envisaged in the year 2050 regarding the new regime of four dimensions; market, policy, culture, and technology. The third session is organized in the form of world-café. One member of the group gave the presentation on their future visions to the panel. After presentation, the remaining 11 participants were asked to add their new ideas and perspectives. Sharing opinions to other groups maximized exploration of different perspectives and ensured discussion of diverse opinions (Freeman, 2006).

Result

The result of future visions on sustainable food purchasing of green consumers, non-green consumers, and innovative consumers are presented in this section. Four dimensions of new regime; 1) market, 2) policy, 3) culture and 4) technology are illustrated in the future visions.

Green consumers

Market: Food producers sell food in reasonable price so that everybody can purchase for safe food. The consumers do not have to make choice between “organic food” and “conventional food” because in 2050, all food in the market is 100% organic. Thus, consumers can buy cheap organic food anywhere including supermarket. Urban consumers spend few minutes to buy sustainable food because of quick purchasing system. Consumers can reserve for food in the farm and get it at home through fast delivery system. Also, providers launch marketing strategy by promoting “Thai Brand”. Thai foods are healthy and popular among consumers all over the world. Thai consumers consume Thai food and healthy. Thai brand is more reliable than international standard and very attractive in the international market.

Policy: There are regulations to convince consumers’ behavior on sustainable food purchasing and to control food production/ distribution system. For consumers, it is important to acknowledge children about sustainable food in the elementary school. Economic instruments are used to change consumers’ behavior. The government exempt or reduce tax for sustainable food consumers since they take a good care of their health and reduce burden of disease. In additions, the control system of food production and distribution must be strong. Food safety must be assured through consumers’ network. In the next 30 years, there will be no GMOs food. Chemical substance is not allowed to add in food. Chemical fertilizer, pesticide, and all forms of chemical substance for food production are not allowed to import and not allowed to use. The penalty for producer who against this regulation is absolutely serious.

Culture: All consumers are knowledgeable. Eating is not only bringing food into the mouth but it is very important to select and buy only good food. Urban people stay in harmonious with nature like 30-40 years ago. Foods are produced by natural process and there is no contamination.

Technology/ Innovation: There will be researches that provide scientific evidences that people who only consume organic food since they were born are healthier than people who consume only conventional food. Also, risk analysis technology can assess risk of food and break-even of buying organic food by including cost of health in the calculation. The result can show concrete evidences that spending money to buy organic food is less than spending money for medicine caused by sickness from food and consumption. Future technology fits lifestyles of urban consumers. For instance, consumers spend very short time in

purchasing food. Also, the organic food must be processed and packed in the form that consumers can eat easily at any time, any place. The consumers can inspect the sustainability of food by using censor machine that indicate on the screen immediately whether the food is sustainable or not. All technologies in food sector use clean energy only. All food containers and packages are 100% made from nature. There is no food industry in the future. Both producers and consumers are responsible and ethical to manage food waste. Consumers would not throw burden of waste management to producer but consumers also reuse and recycle food waste as much as possible. Food waste transformer is a new technology to serve providers and consumers. A food waste transformer will immediately transform food waste into animal feeds or fertilizer so that the consumers do not have to store bad-ordered waste for long time.

Non-green consumers

Marketing: In the future, food market is a place for all consumers. All groups of consumers including elders and consumers with disabilities can easily access the market in terms of physical facilities and information. Consumers can go to the market by public transportation. The information on website is accessible by elders and consumers with disabilities. Food delivery service is very fast by drone. Every house has food receptor that drone will bring food to. During the rush hours, there is sustainable food market available on the sideway so that consumers can buy food to eat at the office or at school. There is a direct-selling system between local producers and consumers in order to reduce price of sustainable food. Food market is green. Only clean energy is used and only organic foods are sold in the market.

Policy: All consumers can access to the information through various channels such as food label, online information, QR code, braille label, and voice label. Instead of difficult data in the label, the international symbols or traffic light symbols are used so that the consumers know immediately whether food is sustainable. The staff from concerned agencies give the information on sustainable food in the audio hall of the market every day. The food control agency handles complaints via application, facebook and line. The complainers will receive immediate reaction from the agency. In additions, there is a reliable certified body that also control ethic of food providers in the market and online. Providers who against the law will be seriously punished. In the future, the government uses incentive measure to reduce tax for

sustainable food providers. New law is also enforced to allow only sustainable foods selling in schools.

Culture: In 2050, consumers only eat healthy food. Consumers buy only good foods from local community. New value for Thai people in the future includes “local food is a premium food”.

Technology/ Innovation: In 2050, there is a health scanning machine which provide data of food that suitable for each individual consumer to the provider. Consequently, providers can offer specific food that fits to each consumer’ health status. In additions, new technology provide more convenient lifestyles to consumers. Sustainable food is prepared in capsule in order to serve rushing urban consumers. Advance delivery technology is developed such as drone or sending food via fax machine. Also, food package is edible and produce zero waste.

Innovative consumers

Market: Future food purchasing is focused on convenience. Food shops and online shops open 24 hours with delivery service. Food providers set up pre-order system between local producers in the community and urban consumers. Food promotion such as free sample and price reduction is set up based on the need of individual. Providers know food status of individual consumers and provide promotion on the specific food. Food providers have good service mind and have good relationship with the consumers. Food providers are able to give suggestions about sustainable food to the consumers.

Policy: There is a control agency that quickly response to consumers’ complaint. Also, this agency is authorized to give serious punishment for unethical food producers/providers. The ceiling price for sustainable food is set up by the government to ensure that consumers are affordable to pay. The government promotes Thai food in the international market by endorsing “Thai standard”. Thai standard is better than any international standard.

Culture: Since the world’s population will be increased in 2050, the consumers accept chemical substance in food but it must not exceed the safety level. Due to climate changes, the food production will be decreased. Thus, consumers would set new value to buy food in the amount that they need to consume. There is no leftover on the dishes. Consumers eat various foods. Foods are medicine and can cure sickness. Thai food is the best in the future.

Technology: Database for food producers and consumers are available and can be accessed. Thus, the producers and providers know exact health status of individual and able to produce and provide food that fits that individual health status. Also, there will be a food waste transformer that able to change food waste into other things i.e. animal feeds immediately. This, consumers do not have to keep waste for long time. The technology in 2050 is very advance. The consumers do not have to read standard or label but they can use ‘sustainability detector’ to verify food in the market.

Discussion

Three groups of consumers have the “different shade of sustainability vision”. There are some similarities and differentiations of future visions. In terms of marketing, all groups of consumers commonly desired convenience, price reduction, and direct buying from local producers. Green consumers preferred that in the next 30 years, sustainable foods must be available in all supermarkets which was similar to innovative consumers who expected that sustainable foods will be sold in various selling points. The non-green consumers mentioned convenience as easy access to the physical and online market places with fast delivery service. The second similar visions was the price of sustainable food. Green consumers stated that sustainable food should be sold in reasonable price while non-green and innovative consumers mutually mentioned that price reduction would attract them to buy sustainable foods. In additions, all groups of consumers would like to buy sustainable food directly from the local producers in order to support them and to buy sustainable food in lower price. Green consumers and innovative consumers agreed “Thai healthy brand” should be promoted when selling sustainable foods to seduce health-concerned consumers to purchase. In additions, green consumers and non-green consumers expected that only organic food will be sold in the future market so that there will be no price difference between organic and conventional food.

For policy and regulations, all groups of consumers requested for effective food control and monitoring system. Reliable certifications, fast response agencies, and serious punishment for unethical food producers/ providers would be a must in the future. All groups of consumers also agreed that tax reduction policy for both sustainable food providers and consumers would be effective in changing food purchasing behavior. Green consumers and non-green consumers also mutually requested for knowledge of sustainable food. Green consumers stated that sustainable food knowledge must be included in the school curriculum

while non-green consumers needed information on the label, QR code, as well as easy to understand label such as traffic light symbol. By contrast, the innovative consumers did not mention anything about the information. However, innovative consumers wanted the government to set up ceiling price for sustainable food.

All groups of consumers agreed that the cultural value of food will be increased. Green and non-green consumers stated that future consumers will pay more attention to what they intake. Innovative consumers indicated that future people will eat various kinds of food due to increasing of population and decreasing of food supply. Also, Thai consumers will have new value to empty their plate without any left-over food. Regarding the definition of sustainable food, green consumers wished to return to the past 30-40 years ago where food were 100 percent from nature. Non-green consumers stated that in the future local food will be a premium food. By contrast, innovative consumers accepted chemical substance using in non-hazardous level since they are concerned about food shortage.

Regarding to technology and innovation, all groups of consumers indicated that they need the detector that they can use to scan food whether it is sustainable or not. They are confused with various kinds of labelling and difficult nutrition label. Also, some certifications might be fake. Thus, they need a reliable tool that can indicate true sustainability to them. Another similar vision among three groups of consumers was that they needed waste transformation technology that can immediately convert their food wastes to other forms such as animal foods, fertilizer, etc. Green consumers were only one group that indicated that they need the researches proving that eating organic food is better and cost-saver than eating conventional food in the long term period. Non-green consumers and innovative consumers mutually needed the health scanning machine that could immediately indicate their health status and suggest specific foods that are good for their health. **Table 2** shows the similarity and differentiation of future visions on sustainable food purchasing among green consumers, non-green consumers, and innovative consumers.

Table 2 Similarity and differentiation of future visions on sustainable food purchasing among green consumers, non-green consumers, and innovative consumers

Regimes	Green Consumers	Non-green Consumers	Innovative Consumers
Marketing			
- Convenience	✓	✓	✓
- Price reduction	✓	✓	✓
- Direct buying from local producers	✓	✓	✓
- Thai brand	✓	-	✓
- Promote 100% organic	✓	✓	-
Policy/ Regulations			
- Food control and monitoring system	✓	✓	✓
- Sustainable food knowledge/information	✓	✓	-
- Price ceiling by the government	-	-	✓
Culture			
- Food cultural value	✓	✓	✓
- Definition of sustainable food	100% natural like in the past 30-40 years ago	Local food	Accept chemical substance in non-hazardous level
Technology/ Innovation			
- Sustainable food detector	✓	✓	✓
- Food waste transformer	✓	✓	✓
- Health scanning machine	-	✓	✓
- Researches about benefit of organic foods	✓	-	-

Conclusion

This chapter has reflected on the methodological processes and subsequent outputs arising from the visioning workshop aimed at the gathering of many ideas for more sustainable food purchasing practices in the year 2050. Visioning focus group was used as the methodology to explore the ideas of future sustainable food purchasing practice. Three groups of consumers were recruited in the focus group discussion; green consumers, non-green consumers, and innovative consumers. The focus group discussion began by outlining the key sustainability problems associated with current food purchasing. This framing clearly had an important bearing on the scenario concepts, as they provided the starting point from which solutions were to be developed.

The result found that three groups of consumers have different visions on future food purchasing practice. Importantly, three groups of consumers have different definitions of sustainable food. Green consumers included only organic food in the definition of sustainable food while non-green consumers focused on local food. The innovative consumers were mostly flexible as they accept chemical substances use in non-hazardous level.

Although green consumers, non-green consumers, and innovative consumers had different definitions of sustainable foods, we found many similarities of their future visions on food purchasing. These similarity can be developed to a future scenario of food purchasing for Thai consumers.

The common future marketing visions included convenience, price reduction, and direct selling with local producers. For policy and regulation, all consumers need effective food control system, fast response, and serious punishment for providers who sell unsustainable foods. The common visions in terms of culture included good food selection, eat various kinds of food, and no left-over food. In terms of technology, all groups of consumers mutually needed sustainable food detector and food waste transformers.

Suggestions for future study

These common visions can be used as the input for the future stakeholders workshop aiming in the short term and long term planning to achieve this food purchasing scenario.

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