SUSTAINABLE FOOD CONSUMPTION IN URBAN THAILAND: an emerging market?

Kanang Kantamaturapoj

Thesis committee

Thesis supervisor
Prof. dr. ir. Gert Spaargaren
Professor of Environmental Policy, Wageningen University

Thesis co-supervisor
Dr. ir. Peter J.M. Oosterveer
Associate Professor, Environmental Policy Group, Wageningen University

Other members
Dr. Somporn Kamolsiripichaiporn, Chulalongkorn University, Bangkok, Thailand
Prof. dr. David A. Sonnenfeld, State University of New York, USA
Prof. dr.ir. Johannes S.C. Wiskerke, Wageningen University
Prof. dr. Maria A. Koelen, Wageningen University

This research was conducted under the auspices of Wageningen School of Social Sciences

SUSTAINABLE FOOD CONSUMPTION IN URBAN THAILAND: an emerging market?

Kanang Kantamaturapoj

Thesis
submitted in fulfillment of the requirements for the degree of doctor
at Wageningen University
by the authority of the Rector Magnificus
Prof. dr. M.J. Kropff,
in the presence of the
Thesis Committee appointed by the Academic Board
to be defended in public
on Monday 21 May 2012
at 4 p.m. in the Aula.

Kanang Kantamaturapoj
Sustainable Food Consumption in Urban Thailand: an emerging market?
215 pages

Thesis, Wageningen University, Wageningen, NL (2012)
With references, with summaries in Dutch and English

ISBN 978-94-6173-231-6

To dad and mom,

Preface

The role of food consumption around the world is going through a profound process of change in the direction of more sustainable food production and consumption. The general patterns of change include an increasing consumer demand for safe and healthy food which is produced in an environmentally friendly way and the rapid rise to power of modern food retailers such as supermarkets. In response to consumers' concerns, modern retailers in many OECD-countries are becoming actively involved in increasing their provision of sustainable food. In Asia, consumers are concerned, worried and mistrustful of food because of its unknown origin and because of food scandals, while supermarkets hesitate to develop substantive levels of supply for sustainable food. This research focuses on metropolitan Thailand, particularly Bangkok, in order to find out whether a specific pathway for sustainable food consumption is emerging. The final aim of this thesis is to investigate the sustainable consumption in Thailand as emerging market, and the possibilities for improving the levels of sustainable food provision and consumption. It uses as an important working hypothesis that the emergence of new markets for sustainable food products will benefit from fine-tuning the supply of sustainable food to the lifestyle characteristics and eating patterns of local consumers in Bangkok.

This dissertation is the result of four years of research work. I extend my sincere gratitude to my promoter Professor Dr. Gert Spaargaren and my co promoter Dr. Peter Oosterveer. They have tolerantly guided me during the research process, providing me with useful comments, encouragements, and friendships. I thank Gert for his kindness to assist me when I had an accident. He made me feel safe and sound although I lived far from home. I thank Gert and Peter to invite me to have dinner at their house with their wonderful family. It was one of my impressive memories in the Netherlands. I thank Prof. Arthur Mol who gave me the opportunity to continue my PhD. I also thank Dr. Somporn Kamolsiripichaiporn who always assisted me while I conducted my fieldwork in Thailand.

I appreciated Mr. Nick Parrott, Mr.John Routeledge, and Mr. Don Hindle for your effort to edit the language of this thesis.

My gratitude goes to other staff of Environmental Policy Group for their support and cheerfulness. I thank Astrid Hendriksen to help me shaping the methodology of the study. I thank Corry Rothuizen for her support during my study.

I also thank Natapol Thongplew, Leah Ombis, Nguyen Kim Dung, Kim Ching, Christine Majale, Glin Laurent, Dan Liang, Dorien Korbee, Hilde Toonen, Elizabeth Sargant, Harry Dabban, Judith Vanleeuwen, and Jennifer Lenhart for their companionship and assistance during my stay in the Netherlands. I thank Ms.Nuanjan Tanyachotkarn and Ms. Siriluk Phoket to facilitate me during my fieldwork. I do appreciate the International Health Policy Program colleges for their comments on the content of this thesis. I truly thank Ms Thitima Apornrat and Ms Busara Bunnakiatkul for this fabulous thesis cover design.

Next, I must thank my beloved parents and my sister, Mr. Kwanchai, Mrs. Chavivan and Ms. Mekhala Kantamaturapoj for their continuous supports and assistances during my fieldwork. They always accompanied me during expert interview and focus group discussion. Thank you so much for never saying no whenever I needed your help. I thank Mr. Prapoth Juprachakorn for his assistance in every focus group discussions and for his encouragement whenever I was close to a breakdown.

I would also like to thank the contact persons and interview participants; Mrs. Pothip Petchpori, Ms.Athipaporn Luengon, Mr. Chairat Petchdakul, Mr. Karin Pattanasak, Mr.Somkid Sanprasertsuk, Ms.Raviporn Termvivatana, Mr.Boonchai Sangchan, Ms. Ameacha Pongpanpanu I want to thank for devoting your time to the focus groups and the interviews. Without your great cooperation, it would have been impossible for me to collect all the data needed for this thesis.

Lastly, I thank myself for being patient and perseverant during these four and a half years. This achievement proves that “*Where there is a will, there is a way*”.

Contents

Preface i

List of tables vi

List of figures vii

List of abbreviations ix

Chapter 1 Introduction 1

1.1 Introduction to Sustainable Food Consumption 1

1.2 The Choice of Case Study and the Rationale Behind its Choice 1

1.3 The Terminology of Sustainable Food Consumption 5

1.4 The Need for a Study on the Provider - Consumer Relationship 6

1.5 Sustainable Providers and Consumers 7

1.6 The Objectives of the Research 8

1.7 The Research Questions 9

1.8 The Outline of the Thesis 9

Chapter 2 Developing a Conceptual Framework to Study Provider Strategies and Consumer Practices in Thailand 11

2.1 Introduction 11

2.2 Debates on Consumer Study Approaches 11

2.3 Integrative Theories of Consumer Behavior; the Social Practice Approach (SPA) 16

2.4 The Operationalization of the Social Practice Model in an Urban Thai Context 18

2.5 Overview of the Research Methodology 21

Chapter 3 Overview of Food, Food Providers, and Consumers in Urban Thailand 23

3.1 Introduction 23

3.2 Urban Thailand: Bangkok City 24

3.2.1 Area and Population 24

3.2.2 Infrastructure 26

3.2.3 Current Environmental Problems in Bangkok 27

3.2.4 Thai Politics and Protests in Bangkok 27

3.3 The System of Food Provision in Thailand 28

3.3.1 Overview of Food and the System of Food Provision 28

3.3.2 National Food Regulation and Policy Approaches 31

3.3.3 Food Standards and Definitions 34

3.3.4 Driving Forces for More Sustainable Food Provision in Urban Thailand 37

3.4 Food Retailers 38

3.4.1 Overview of Food Distribution Channels in Urban Thailand 38
3.4.2 Traditional Food Retailers in Urban Thailand.. 38
3.4.3 Modern Food Retailers in Urban Thailand... 39
3.5 Consumers 45
3.5.1 Consumers' Trust and Concerns... 45
3.5.2 Consumers Lifestyle... 46
3.6 Conclusion 47
Chapter 4 Providing Sustainable Food in Urban Thailand... 52
4.1 Introduction 52
4.2 Methodology... 53
4.2.1 Objects of Analysis, Sample Size, and Selection Criteria 53
4.2.2 Data Collection.. 53
4.2.3 Checklists and Variables... 54
4.3 The Survey of Specialized Shops 55
4.3.1 Ban Navilit 55
4.3.2 Suan Nguen Mee Ma Shop.. 57
4.3.3 The Health Me Shop and Restaurant... 58
4.3.4 Thai Sabai Shop 59
4.4 Key Providers of Sustainable Food: Empirical Findings of Supermarkets 62
4.4.1 TOPs Supermarket 62
4.4.2 Foodland... 64
4.4.3 Villa Market... 65
4.4.4 Gourmet Market 67
4.4.5 Golden Place 69
4.5 Discussion and Conclusion.. 72
Chapter 5 Sustainable Food Provision Strategies in Bangkok: Between a niche and the mainstream market 79
5.1 Introduction 79
5.2 Focus Group Discussion with Representatives of Specialized Shops in Bangkok ... 80
5.2.1 Focus Group Methodology.. 80
5.2.2 Results of the Focus Group Discussion with Specialized Shop Representatives 83
5.3 Supermarket Interviews.. 87
5.3.1 Methodology 87
5.3.2 Results of Supermarket Interviews 88
5.4 Discussion and Conclusions 93
Chapter 6 Consumers' Views on Green Food Provisioning 96
6.1 Introduction 96

6.2 Methodology 97
6.2.1 Participants in the Focus Group Discussions 97
6.2.2 Focus Group Discussions: Procedures 99
6.3 The Results of the Focus Group Discussion with Green Consumers 100
6.3.1 The Pros and Cons of Each Strategy: Responses from Green Consumers 101
6.3.2 Green Consumers' Ranking of the Strategies 104
6.4 The Results of the Focus Group Discussion with General Consumers 106
6.4.1 The Pros and Cons of Each Strategy: Responses from General Consumers 106
6.4.2 General Consumers' Ranking of Strategies 110
6.5 Discussion and Conclusions 111
Chapter 7 Investigating Consumers in Urban Thailand 113
7.1 Introduction 113
7.2 Variables used to characterize Bangkok consumers 114
7.3 Organizing the Survey 116
7.3.1 Data Collection 116
7.4 Empirical Findings 119
7.4.1 Consumers' Attitudes 119
7.4.2 Consumer Practices 122
7.4.3 Consumers' Perspectives 124
7.5 Discussion and Conclusions 129
Chapter 8 Conclusions 157
8.1 Introduction 157
8.2 Sustainable Food Providers in Bangkok 159
8.3 Consumers in urban Thailand 162
8.4 Conclusion: make sustainable food more visible to the conventional consumers 165
Reference 167
Appendix 181
Summary 207
Samenvatting 210
About the author 214
Completed Training and Supervision Plan 215

List of Tables

Table 1-1 Production Areas (ha) Under Organic Farming by Crop, 1998-2005 2
Table 1-2 Production and Market Value during 2003 – 2005 4
Table 1-3 Categories of Organic Produce in Thailand (2004) 4
Table 3-1 Gross Domestic Product and Gross National Product of Thailand at 1988 Prices by Economic Activities 29
Table 3-2 Differentiation between Organic, Hydroponic, and Hygienic Products 34
Table 3-3 Year of Entering Thailand and Number of Retail Outlets in 1997 40
Table 3-4 Number of Major Supermarkets in Bangkok from 1997 – 2010 41
Table 3-5 Number of Supermarket Stores in Bangkok Metropolitan Area and Other Provinces in 2008 and 2010 42
Table 3-6 List of Specialized Shops in Bangkok (2010) 44
Table 4-1 Availability of Sustainable Food in Four Specialized Shops in Bangkok in 2008 and 2010 (number and per centage) 74
Table 6-1 Strategies Obtained from Providers 100
Table 6-2 The Pros and Cons of Each Strategy: Summary of Focus Group Discussion with Green Consumers 101
Table 6-3 Ranking of Strategies by Green Consumers 105
Table 6-4 The Pros and Cons of Each Strategy: Summary of Focus Group Discussion with General Consumers 109
Table 6-5 Ranking of Strategies by General Consumers.. 110
Table 7-1 Number of respondents from each retail shop 118
Table 8-1 Number of specialized shops, open markets and population in Bangkok, 2001-10 160
Table 8-2 Number of major retailers in Bangkok from 1997 – 2010..................................... 162

List of Figures

Figure 1-1 Land under Organic Cultivation in Thailand 1998-2005 3
Figure 1-2 Land in World Organic Rice Production (2007).. 3
Figure 1-3 Thailand's Export Value of Uncooked (solid line) and Cooked (dashed line) Poultry, (October 2003 – October 2006) 7
Figure 2-1 The Social Practice Model... 18
Figure 2-2 The Social Practice Model within the Specific System of Provision in Bangkok . 19
Figure 3-1 Map of South East Asian and Location of Bangkok 25
Figure 3-2 Land Use of Bangkok 25
Figure 3-3 Location of Goods Distribution Centre and Department Stores in Bangkok Metropolis (2002).. 26
Figure 3-4 General System of Food Provision in Thailand.. 30
Figure 3-5 Organization Chart of MoAC Food Safety Regulation 32
Figure 3-6 Organization Chart of MoPH Food Safety Regulation 33
Figure 3-7 Organic Food Standards and Labels in Thailand.. 35
Figure 3-8 Hygienic Food Standards and Labels in Thailand 36
Figure 3-9 Transition of Food Market Retails from the Past to the Present (2010)................ 49
Figure 3-10 Total Monthly Income per Household in Greater Bangkok 50
Figure 4-1 In front of Ban Navilit Shop 61
Figure 4-2 Green Market Network Logo at Suan Nguen Mee Ma Shop 61
Figure 4-3 Separated Organic Shelf at Suan Nguen Mee Ma Shop 61
Figure 4-4 Health Me Shop 61
Figure 4-5 Information in Health Me Shop 61
Figure 4-6 Thai Sabai Shop 61
Figure 4-7 Organic Campaign at TOPs 68
Figure 4-8 Go Green- Go Organic Tab at TOPs... 68
Figure 4-9 Label of Organic and Hydroponic Vegetables in Foodland.................................. 68
Figure 4-10 Product Consultation of Organic Soup in Foodland.. 68
Figure 4-11 Organic Vegetables Corner in Villa Market.. 68
Figure 4-12 Organic Food Corner in Villa Market.. 68
Figure 4-13 Fruit Festival 2008 Exhibition in Gourmet Supermarket 71
Figure 4-14 Organic vegetable shelf in Gourmet Supermarket 71
Figure 4-15 Wording above the Organic Shelf in Gourmet Supermarket............................... 71

Figure 4-16 Pictures of Farms and Farmers who Supplied Chemical Safe Vegetable to Golden Place 71
Figure 4-17 Wordings of “Chemical Safe” in Golden Place 71
Figure 6-1 The Structure of the Focus Group Discussions 99
Figure 7-1 Likert-type scale (5=agree strongly, 0= disagree strongly’) on consideration of green variables 120
Figure 7-2 a Likert-type scale (5=agree strongly, 0= disagree strongly’) on consideration of other variables 120
Figure 7-3 Knowledge about sustainable food of customers from specialized shops, high-end supermarkets, and discount stores 122
Figure 7-4 Eating habits 122
Figure 7-5 Experience of buying organic food 123
Figure 7-6 A Likert-type scale (5=agree strongly, 0= disagree strongly’) on perspectives of consumers on target group strategy 125
Figure 7-7 A Likert-type scale (5=agree strongly, 0= disagree strongly’) on perspectives of consumers on information strategy 126
Figure 7-8 A Likert-type scale (5=agree strongly, 0= disagree strongly’) on perspectives of consumers on connecting provider - consumer strategy 127
Figure 7-9 A Likert-type scale (5=agree strongly, 0= disagree strongly’) on perspectives of consumers on price strategy 128
Figure 8-1 A Likert-type scale (5=agree strongly, 0= disagree strongly’) on Awareness of consumers when buying food 164
Figure 8-2 Experience of buying sustainable food among different consumer groups 164

List of abbreviations

ACFS	The National Bureau of Agricultural Commodity and Food Standards
ACT	Organic Agriculture Certification Thailand
BMA	Bangkok Metropolitan Administration
CP	Charoen Pokphand Company
CSR	Corporate Social Responsibility
DOA	Department of Agriculture
DOAE	Department of Agricultural Extension
FMI	Food Marketing Institute
GAP	Good Aquaculture Practice
GMP	Good Manufacturing Practice
HACCP	Hazard Analysis Critical Control Point
IFOAM	International Federation of Organic Agricultural Movements
MD	Managing Director
MOAC	Ministry of Agriculture and Cooperatives
MOC	Ministry of Commerce
MOPH	Ministry of Public Health
PC	Product Consultation
Q sign	Quality sign
QA/QC	Quality Assurance/ Quality Control
USDA	The US Department of Agriculture

Chapter 1 Introduction

1.1 Introduction to Sustainable Food Consumption

The production and consumption of food has changed dramatically over the last thirty years with more and more food being distributed all over the world (Oosterveer 2005). According to Giddens (1990), the mode of production is now far removed from the mode of consumption in terms of time and space. This gap between food production and consumption can be between rural and urban areas in the same country or from one continent to another. One consequence of this is that consumers are no longer aware how food is produced; they don't know how food is cultivated on the farm, how food is processed in the factories or packaged and transported to the store. Since consumers only see the end products on the shelves of the outlets, they may wonder about the origin and safety of the food they eat. This leads some to question the consequences of food provisioning in terms of health and environmental issues (O'Doherty, Larsen et al. 2001; Oosterveer 2005).

In addition, food related health risks, such as mad cow disease, bird flu and melamine make consumers feel that they live in a hazardous society full of risks that are global, systemic, unpredictable and infinite (Beck and Willms 2004). Concern, uncertainty, worries and mistrust are all important issues in contemporary discussions about food consumption (Torjusen, Sangstad et al. 2004). How can consumers be confident about the safety of food? What tools are needed to construct stronger trust among consumers?

These challenging questions make up the topic of this study. This research investigates how consumer demands, motivations and concerns about sustainable food relate to the strategies of providers, using existing distribution channels to provide it. The research also evaluates different strategies for increasing the level of sustainable food consumption.

1.2 The Choice of Case Study and the Rationale Behind its Choice

Urban Thailand is the focus of this research. As a newly industrialized country in Southeast Asia, Thailand can be expected to witness an increasing domestic demand for sustainable food products (Roitner-Schobesberger, Darnhofer et al. 2007; IFOAM 2009). The modes of production and consumption in the country are already separated. Most production, such as farms and factories, are in rural and suburban areas. Consumers in urban areas do not see where and how their foods are produced and have become more concerned about health risks (Oosterveer 2005). Also, there is increasing concern for environmental issues among Thai consumers (Vanit-Anunchai and Schmidt 2004). Sustainable food consumption is endorsed, by both the emerging middle classes and higher-educated people (Wandel and Bugge 1997; Roitner-Schobesberger 2006) who are becoming aware of the importance of health and the environment in their daily food consumption.

Food providers see the sales of sustainable food growing rapidly with the market for organic food increasingly expanding (Suksri, Moriizumi et al. 2008). Although the market share of organic food in Thailand is still small, the organic market expanded by 145 per cent between 2000 to 2005 (Commerce Intelligence of Thai Ministry of Commerce 2007). Ellis et al.

(2006) showed that a rapid development of the domestic market for organic food contributes to the stability of the sector by dampening supply fluctuations. A domestic market also provides a ready source to absorb export surpluses and produce which falls below the required export specifications. At the moment, many certified brands of organic farm produce can be found in supermarkets and modern trade outlets, particularly in Bangkok (Eischen, Prasertsri et al. 2006).

The area of organic production in Thailand has dramatically increased from only 1,005 ha in 1998 up to 21,701 ha in 2005 **(**Table 1-1 and Figure 1-1). Most of the produce is destined for export.

Table 1-1 Production Areas (ha) Under Organic Farming by Crop, 1998-2005

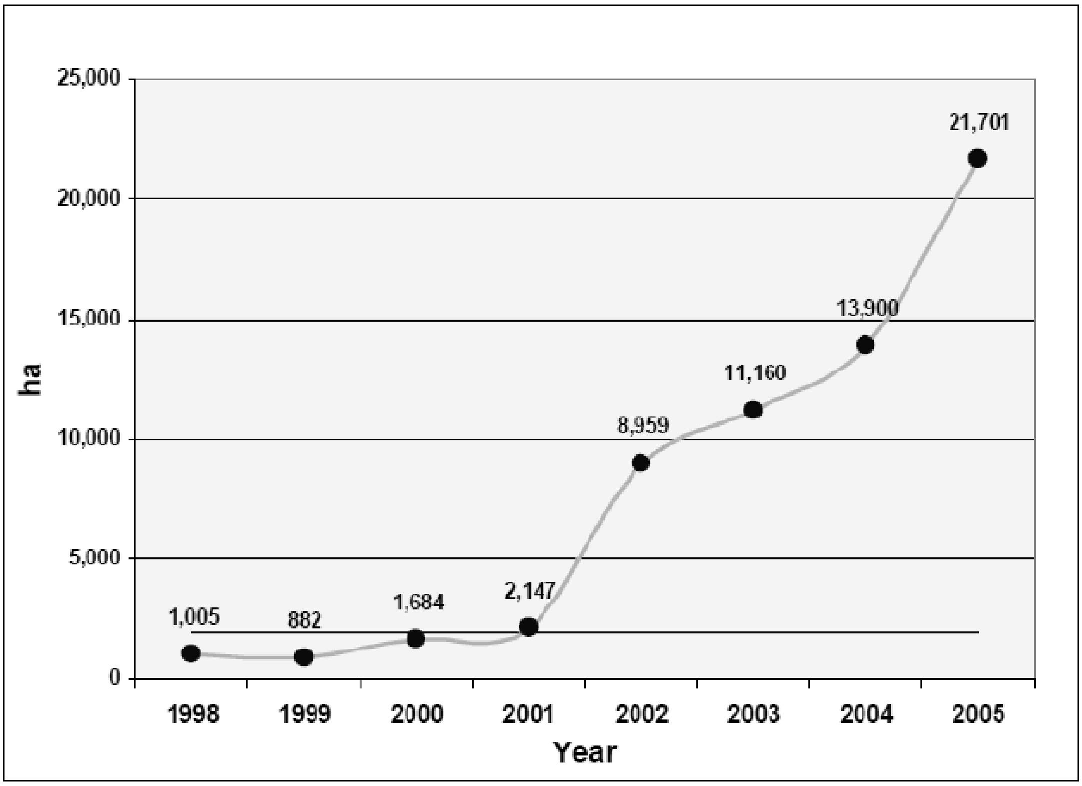
Year	Rice	Field crops	Vegetables	Fruit	Other	Total
1998	1,005.03		-		-	1,005.03
1999	881.62		-		-	881.62
2000	1,120.84		563.00		-	1,683.84
2001	1,584.08		563.00		-	2,147.08
2002	5,254.60		3,581.17		-	8,958.77
2003	7,475.09		3,561.70		-	11,159.80
2004	8,349.24	1,257.57	2,125.38	2,044.32	123	13,899.50
2005	17,328.32	1,076.99	2,375.16	799.26	121.76	21,701.49

Source: (Green Net/ Earth Net Foundation 2005)

Most of the organic production area is for rice and other field crops, followed by vegetables and fruit (Green Net / Earth Net Foundation 2005). SÖL & FiBL's survey in 2007 showed that Thailand was the number one organic rice producer in the world (Figure 1-2) (Willer and Yussefi 2007).

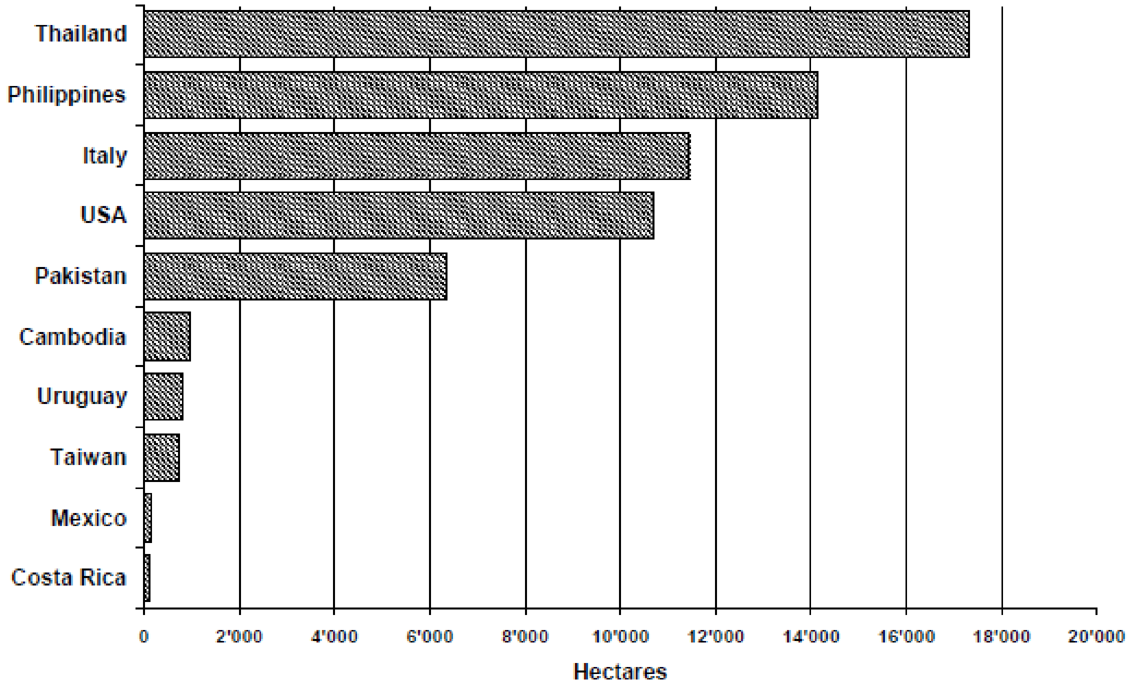
Table 1-2 shows the constant rise of overall organic food production in Thailand. The volume of organic products delivered to the market in Thailand in 2005 was estimated at 29,415 tons, a substantial increase from 9,756 tons in 2003 (Ellis, Panyakul et al. 2006). In value terms, the domestic market has increased even faster and has overtaken the export market: in 2005 it was estimated at 494.5 Million Baht, with 425.9 Million Baht exported (Ellis, Panyakul et al. 2006; Green Net 2008). Major importers of organic farm products include the European Union, especially Germany, the United Kingdom and France. Demand in Japan and Singapore is also increasing significantly, with the Japanese market for organic farm goods being the fastest growing in the world (Ellis, Panyakul et al. 2006). Among the most popular products are fresh and dried tropical fruits and vegetables, as well as processed agricultural products. Thailand is a major supplier of organic rice to the USA (Eischen, Prasertsri et al. 2006). Table 1-3 shows the available categories of organic produce in Thailand in 2004.

Figure 1-1 Land under Organic Cultivation in Thailand 1998-2005



Source: (Green Net/ Earth Net Foundation 2005)

Figure 1-2 Land in World Organic Rice Production (2007)



Source: SÖL & FiBL survey (Willer and Yussefi 2007)

Table 1-2 Production and Market Value during 2003 – 2005[1]

Crop	2003		2004		2005	
	Production (tons)	Value (Million Baht)	Production (tons)	Value (Million Baht)	Production (tons)	Value (Million Baht)
Rice	7,007.90	210.24	7,827.41	313.10	18,960.38	534.75
Field crops			1,571.96	55.02	2,040.92	45.16
Vegetables and herbs	2,671.28	160.28	2,656.73	159.40	4,618.18	255.83
Fruits			3,833.10	76.66	3,746.51	74.93
Others	76.88	4.61	76.88	4.61	49.11	9.69
Total	**9,756.05**	**375.13**	**15,966.08**	**608.79**	**29,415.10**	**920.36**

Source: Green Net/ Earth Net Foundation, 2005

Table 1-3 Categories of Organic Produce in Thailand (2004)

Category	Examples of Products
Rice	White and brown rice
Beans	Soybeans and peanuts
Processed vegetables	Frozen or bottled baby corn
Fresh vegetables	Fresh baby corn, okra, salads, tomatoes, Chinese vegetables
Fruit	Banana, papaya, pineapple, jackfruit, mango, longan
Herbal teas	Dried bael fruit, dried lemongrass, rose tea
Food ingredients	Dried spicy seasoning, coconut milk, sugar, tapioca flour
Wild products	Wild honey
Processed foods	Sesame butter, peanut butter
Medicinal herbs	Fa talai joan (*Andrographis paniculata*), Indian mulberry
Aquaculture	Tiger prawns, fish

Source: Green Net/ Earth Net Foundation, 2005

[1] Only production volume is shown because there are no official statistical data on how much of these organic foods are exported to foreign markets and how much surplus left in the domestic market (Ellis et al., 2006).

The general tendency worldwide is for supermarket retailers to have a strong position in the sustainable food market (Oosterveer, Guivant et al. 2007). In urban Thailand, many retailers have introduced sustainable foods in their shops. Upmarket retailers and supermarkets already provide sustainable foods as green alternatives for their consumers. Other retailers, such as specialized shops have also opened in Bangkok. They are attempting to set up a green market network to exchange sustainable products and to extend market channels. The strategies of the green market network are interesting. They not only attempt to sell more products but they also select 'real green' products and promote these in their niche market. Standard certification is not the first priority for the Green Market Network. They give opportunities to small green producers, who do not have the ability to apply for a standard, to sell their products in specialized shops. This allows small farmers to shift their production in a more sustainable direction. Trust mechanisms are built between providers and producers when the representatives of the Green Market Network visit the farm or factory and observe the process to make sure that it is environmentally friendly and safe to human health. This information is then passed on to the consumers by verbal communication. This is a good example of building relations between providers and consumers and allows specialized shops in urban Thailand to successfully sell sustainable food.

This is only one example of the trust mechanism that exists between providers and consumers. Many other kinds of trust mechanism can be employed to increase the sales of sustainable food. Trust mechanisms might be different and involve area, education, money, etc. They provide an opportunity to effectively enlarge the levels of sustainable consumption in urban Thailand, allowing independent providers to start getting involved in the market to meet increasing demands for sustainable food.

1.3 The Terminology of Sustainable Food Consumption

Consumption has been an important issue in international policy since the early 1970s (Jackson and Michaelis 2003). The terminology of sustainable consumption first entered the policy discourse in 1992 at the Rio Earth Summit and was highlighted as a key challenge to attaining sustainability and became the subject of Chapter 4 of Agenda 21 (Masera 2001). As Bruyer et al. (2003) argue "Agenda 21's chapter 4 (changing consumption patterns) explains that non-viable production and consumption patterns are the main cause of the continuous degradation of the environment and that this scheme worsens poverty and imbalance between rich and poor countries". That's why the examination of the role and the impact of consumption and production patterns as well as unsustainable lifestyles should get a high priority.

The 1994 Oslo Ministerial Round table established the most commonly accepted definition of sustainable consumption: "the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations." Here the focus is mainly on environmental issues, even if "basic needs" and "better quality of life" are quoted (Bruyer, Zaccai et al. 2003).

The UN (1998) provides another definition of sustainable consumption, one that is more concerned with the supply side, focusing on the economic, social and environmental impact of production processes, while sustainable consumption addresses the demand side, focusing on consumers' choice of goods and services, such as food, shelter, clothing, mobility and leisure to fulfil basic needs and improve the quality of life. This research builds on these definitions and considers sustainable food as food with an added value and with benefits for human health, the environment, and social conditions. This includes food that is organic, grown without chemicals or pesticides, hygienic, and fair-traded. Organic food is a good example of this group of foods. It has been studied (and is consumed) not only in association with environmental concerns, but also within the risk framework of including food safety and environmental impact (Torjusen, Sangstad et al. 2004).

This study, however, is not restricted to only organic produce because there are also other foods that meet the different sustainability criteria; for example health foods (in terms of food safety concerns), animal welfare, and fair trade foodstuffs. Both certified and non-certified sustainable foods are included in this research. While the sales volume of organic food in the country is still small, many other forms of sustainable food are available in Bangkok's markets, variously sold as 'non-chemical', 'pesticide safe', and 'hygienic' foods. These foods are beneficial for human health and the natural environment and 'fit' in the current situation of food sales and consumption in Bangkok. Thus, the definition of sustainable food also covers these categories of food that are available in Bangkok.

1.4 The Need for a Study on the Provider - Consumer Relationship

A literature review showed a significant number of studies on sustainable farming and technology as well as marketing research. For example, the Foundation for Ecology & Agriculture (SŐL) and the Research Institute of Organic Agriculture (FiBL), in cooperation with the International Federation of Organic Agriculture Movement (IFOAM) have annually collected data about organic farming worldwide, including Thailand, since 1999. The data include land area under organic management, land use, and number of organic farms in the country (Willer, Rohwedder et al. 2009). The Global Agriculture Information Network conducted a report on Thailand's Organic Outlook in 2006 with regards to import regulations, certification, and the market sector for organic food in Thailand (Eischen, Prasertsri et al. 2006). An Asia Trust Fund Project provides the background to the current state of play of organic agriculture in Thailand and provides an assessment of the key issues for the supply chain. These include production, marketing, research, training and extension services, the institutional framework and support systems and the import requirements of the EU (Ellis, Panyakul et al. 2006). Dinham (2003) studied the problems associated with the over-reliance by small producers in developing countries on pesticides and how improved information and training in the use of pesticides and applying better management strategies may solve these problems. On marketing, Udomkit and Winnett (2002) studied organic rice projects in Thailand to investigate the benefits that organic farmers obtained once full organic status is achieved. Setboonsarng et al. (2006) uses econometric analysis to evaluate the profitability of rice contract farming, as compared with non-contract farming, in Thailand. Some studies have focused on the consumers of organic food in Thailand. For example, Roitner-Schobesberger (2008) studied the knowledge of consumers in Bangkok of organic foods and the reasons consumers give for purchasing (or not) organic.

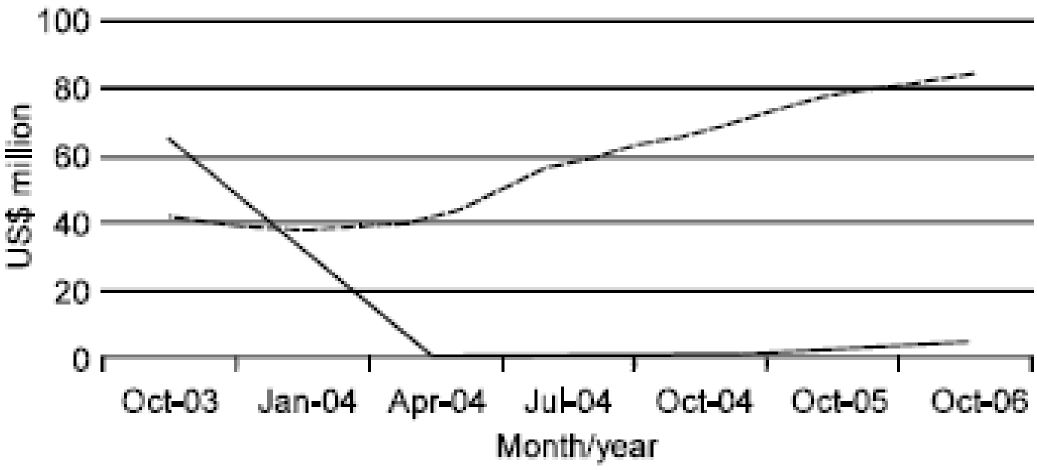
Nevertheless, a study of provider - consumer relationships in Thailand is still missing from the existing literature. Improving our understanding of sustainable food consumption, in terms of the actors involved in sustainable food, the organization, as well as provider strategies and consumer practices is therefore scientifically significant for furthering sustainable food consumption in urban Thailand.

1.5 Sustainable Providers and Consumers

A transition towards sustainability in food provision can be achieved in various ways, which may differ from country to country. In some countries, like the UK, retailers have taken a lead in developing sustainable food provision. The supermarkets in the UK set environmental standards in the supply chain, covering quality control, information dissemination and carbon footprints. In Germany the government has played a major role in food sustainability since the BSE crisis. In the Netherlands NGOs keep an eye on the retailers and have launched campaigns for more sustainability (Oosterveer 2011).

For Thailand, the transition towards food sustainability first became evident in 2004 when the government launched a food safety policy aimed at increasing the quality and reputation of Thai food exports (Chanyapate and Delforge 2004; Takeuchi and Boonprab 2006). In 2003, Thailand was the fourth largest poultry exporter in the world (Chanyapate and Delforge 2004). About 90 per cent of the nation's chicken production is exported, mainly to the EU and Japan (Chanyapate and Delforge 2004). At the end of 2003, a bird flu outbreak was firstly discovered in China and subsequently spread over Asia. The EU and other countries suddenly banned fresh and frozen poultry products from Thailand due to bird flu concerns (Chanyapate and Delforge 2004; Burgos 2007). This caused a 91 per cent drop in exports of Thai frozen chicken and chicken products in 2004 (**Figure 1-3**).

Figure 1-3 Thailand's Export Value of Uncooked (solid line) and Cooked (dashed line) Poultry, (October 2003 – October 2006)



Source: (Burgos 2007)

As a result of this sharp decline in exports, the agribusiness companies - including giant food producers like the CP Group - forced the political leaders to make sure that the government defended the interests of the export industry (Chanyapate and Delforge 2004). Instead of making Thai consumers more trusting in the safety of poultry, the government set up a campaign convincing Thai citizens to eat chicken for patriotic reasons. The campaign ran along the lines of "if Thais don't eat chicken, how can we expect others to buy our chicken?" (Chanyapate and Delforge 2004). However, the campaign - with its lack of information - did not work. Thai consumers still distrusted the safety of the chicken. This concern about bird flu was only an issue for a short while, while the outbreak was in the news. When the situation returned to normal, people soon forgot about bird flu. Thai consumers' main apprehension is related to chemical contamination (Krualee and Napasintuwong 2004; Roitner-Schobesberger 2006; Takeuchi and Boonprab 2006).

Modern retailers in many countries play an important role in responding to consumers' concerns and in increasing the provision of sustainable food. The number of modern retailers, such as supermarket chains, has been rapidly rising everywhere in the world. The supermarket first appeared in the US in the 1930s (Zimmerman 1941; Ellickson 2007; Lawrence and Burch 2007) and in Western Europe in the 1960s (Oosterveer 2011). Since then, they appeared in Latin America (in the early 1990s), followed by Southeast Asia 5-7 years later (Reardon, Timmer et al. 2003; Traill 2006). The most recent regions for supermarket take off include Eastern Europe and Africa (Reardon, Timmer et al. 2003; Traill 2006). The factors of supermarket growth may differ per country. It is generally influenced by many factors, such as income and income distribution, urbanization, female participation in the labour force and foreign investment (Reardon, Timmer et al. 2003; Traill 2006; Lang, Barling et al. 2009).

For example in China the supermarket only emerged in the 1990s (Zhang, Yang et al. 2005) but the revolution is 2-3 times faster than in other developing countries (Hu, Reardon et al. 2004). Economic development, urbanization, increasing incomes and market liberalization are the main factors for the rapid growth of supermarkets, especially in the urban areas such as Shanghai and Beijing (Zhang, Yang et al. 2005).

In Thailand, the rise of supermarkets has been influenced by many factors including the rapid growth of the economy (Schaffner, Bokal et al. 2005) together with foreign investments (Mandhachitara 2000). The increasing population (Mandhachitara 2000) and the growth of the middle class (Schaffner, Bokal et al. 2005) with more purchasing power (Feeny, Vongpatanasin et al. 1996) and less time for shopping (Shannon and Mandhachitara 2008) are also factors helping the growth in the number of supermarkets in Thailand, and in Bangkok in particular. Besides this, modern lifestyles (Feeny, Vongpatanasin et al. 1996) and enjoyment of shopping (Shannon and Mandhachitara 2008) are also major influences.

The above literature review shows that the modernization of providers is continuously increasing. This thesis intends to explore how consumers can become modern in terms of sustainability. Retailers employ various strategies to increase sustainable provision, not least because it is in their commercial interests to do so. This research seeks to explore whether these strategies fit with the consumers' lifestyles and whether consumers accept these strategies or not.

1.6 The Objectives of the Research

To understand and explain the dynamics and developments of sustainable food consumption in urban Thailand, this research investigates how consumer concerns about sustainable food provisioning strategies match with those employed by providers in existing distribution channels. This research aims at identifying fits and misfits between the systems of provision (providers) and consumer attitudes to shopping for sustainable food in urban Thailand. In so doing it develops concrete options for promoting domestic sustainable food consumption.

The primary objectives of this research are as follows:

A. To explore provider and consumer practices towards sustainable food in urban Thailand

B. To evaluate the different strategies used by providers to increase the level of sustainable food consumption in urban centres of Thailand and the reactions of consumers towards these strategies

1.7 The Research Questions

These two central research questions raise a number of sub-research questions.

1. What is the situation of sustainable food consumption in the urban centres of Thailand?

1.1 Who are the providers of sustainable food in the urban centres of Thailand?

1.1.1 Who are the key actors involved in the different distribution channels?

1.1.2 What are providers' perspectives and strategies towards and information flows to consumers in terms of sustainable food?

1.2 What are the awareness, practices, and perspectives of consumers when buying and eating sustainable food?

1.3 What are the interactions between providers and consumers in terms of sustainable food provisioning?

1.4 What are the existing policies regarding sustainable food consumption in the urban centres in Thailand?

2. What are the possibilities for improving the level of sustainable food consumption?

2.1 What different strategies can be identified to increase sustainable food consumption?

2.2 How can these strategies be better attuned with consumers?

1.8 The Outline of the Thesis

This thesis is divided into three parts. The first part, which includes chapters 2 and 3, provides the theoretical and conceptual background. Chapter 2 reviews the various debates on studying consumers and justifies the selection of a social practices approach for this research. It also describes how a social practices approach is employed in this research and what its focus is. Chapter 3 focuses on the first research question, investigating the current situation of sustainable consumption in Bangkok including a review of key providers, existing strategies, and food policies in Thailand. Chapter 3 provides a review of the literature on food providers and consumers in the global context as well as an overview of food sectors and systems of provision of food in Thailand.

The second part of the thesis examines the second research questions and aims to identify new strategies that could be effective in encouraging larger numbers of consumers to purchase sustainable food. Chapters 4 and 5 provide the empirical findings about providers while chapters 6 and 7 provide the empirical findings on consumers. Chapter 4 looks at the key providers of sustainable food in urban Thailand; supermarkets, specialized shops and restaurants. Four specialized shops and five major supermarkets are observed using a participant observation technique. The researcher acted in the role of a customer and visited these outlets. Three levels of sustainability; image and impression of sustainability, information given above the product level, and specific information on the available sustainable products were assessed to analyse the ways in which providers communicate sustainability to consumers. Chapter 5 presents the result of focus group discussions with specialized shops in Bangkok and interviews with supermarket management. The focus group discussion was set up with specialized shops in Bangkok to identify strategies to entice a larger group of general consumers to consume sustainable food. The interviews with supermarket representatives also asked their vision on how to increase sales of sustainable food. Chapters 6 and 7 focus on consumers and their reactions towards providers' strategies. Chapter 6 presents the results of a focus group discussion with green and general consumers in Bangkok. The advantages and disadvantages of the strategies of providers (discussed in chapter 5) are assessed, with the consumers being asked to rank the effectiveness and attractiveness of these strategies. Chapter 7 provides the results of a survey among 450 consumers in Bangkok. This sample was divided into three groups: green consumers who shop in the specialized shops, premium general consumers who shop in the up-scale supermarkets, and ordinary consumers who shop in discount stores. The survey intended to find out the general level of green awareness and green buying habits of different type of consumers, the relationships between eating habits and other kinds of green products as well the strategies that would be the most effective for each type of consumer.

The third part, chapter 8, provides a discussion of, and conclusion for, this thesis. The impacts of globalization on food consumption in Bangkok are considered. The specific pathways to promoting more green consumption among Thai consumers are investigated by looking at the providers, consumers and the interactions between them. The possibilities for increasing sustainable food consumption in Bangkok, through the use of a social practices model, are discussed.

Chapter 2 Developing a Conceptual Framework to Study Provider Strategies and Consumer Practices in Thailand

2.1 Introduction

The actions that people take or the ways in which they make decisions about consuming certain products have direct and indirect impacts on the environment (Jackson 2005; Zhang 2007). Sustainable development policies assume that consumers can (and are willing to) change their attitudes and shift towards more sustainable consumption patterns (Wallenborn 2007). This is based on the hypothesis that consumers have the power to change their behaviour and lifestyle. The hypothesis is an expression of the concept of political consumerism (Micheletti, Føllesdal et al. 2004) and ecological citizenship (Spaargaren 2005). Political consumerism claims that consumers are political in the sense that they have knowledge of the environmental impact and social impact of the products they consume. Ecological citizenship refers to individuals who take responsibility to contributing towards a sustainable society (Spaargaren 2005). Consumers can contribute to a better environment by changing their everyday life practices through, for example, recycling plastic bags, separating waste and using public transport. In terms of food, consumers can be more environmentally friendly by shopping and eating sustainable food, which generates less impacts on the environment and has health-safety benefits. This study evaluates the process of change towards more sustainable patterns of food consumption.

There are many approaches, developed by various schools, for studying sustainable consumption patterns. This chapter discusses various debates on consumer study approaches based on National Institute for Consumer Research (SIFO) (Torjusen, Sangstad et al. 2004), Jackson (2005), and Wallenborn (2007). After this evaluation, a choice is made for the most suitable approach to study sustainable consumption in the urban centres of Thailand. The last section of this chapter describes the social practices model as the methodology employed in this study.

2.2 Debates on Consumer Study Approaches

Consumer research has been carried out in multidisciplinary fields, using a variety of approaches and methodologies (Torjusen, Sangstad et al. 2004). This section reviews the main literature on consumer study approaches, principally by SIFO (Torjusen, Sangstad et al. 2004), Jackson (2005), and Wallenborn (2007).

The SIFO study (Torjusen, Sangstad et al. 2004) reviewed two approaches to consumer studies: a cognitive and behavioural framework and a social scientific approach. These two types of approaches reveal differences in methodology, issues and research questions. Jackson (2005) reviewed the literature on consumer behaviour and behavioural change as well as discussing the evidence base for different models of change. He presents several models of consumer behaviour and behavioural change developed by different schools. These models can be categorized as: rational choice, against rational choice, adjusted expectancy value theories, moral and normative conduct, the matter of habit, sociability and self, and integrative theories of consumer behaviour (Jackson 2005).

Wallenborn (2007) asserted that the power attributed to consumers is linked to the theoretical framework from which these research hypotheses are drawn. He analysed the different ways of defining consumers and the powers that are attributed to them. In other words, Wallenborn felt that consumers act according to what defines them, such as personality and motivations, social situation and the society in which they live. In order to analyse the powers attributed to consumers, he examined five kinds of structures: ecosystems, markets, personalities, situations, and infrastructures (Wallenborn 2007).

Environmental social sciences have distinguished four perspectives on consumer-power (Wallenborn 2007; Spaargaren and Mol 2008). These four approaches are explored in this chapter in order to explore their strengths and weaknesses; the ecosystem approach, the economic approach, the psychological approach and the social approach. The positive elements of each approach will be used in this research. Details of each approach are elaborated below.

1) Ecosystem Approach: consumers as living beings

From a biological point of view, all living beings consume natural resources from the ecosystem, which sets limits to growth (Wallenborn 2007). The ecological approach recognizes that the ecological sustainability of human societies raises other sociological issues and theories about the role of the environment in society (Dunlap 2002). This approach was developed to understand how human societies impact on the physical environment (York, Rosa et al. 2003). The IPAT model argues that environmental impacts (I) are derived from the interaction of three variables: population (P), affluence (A), and technological development (T) (Rudy and Konefal 2007). The IPAT model is applied in this approach to predict environmental impacts, by using an ecological footprint as an indicator (York, Rosa et al. 2003).

It is clear that consumption is a problem if it makes scarce materials or energy less available for future use, and consequently threatens future human survival (Princen 1999). Many believe that, at present, the level of consumption by humans (or at least those in developed countries) is excessively high. From an ecological perspective, over-consumption is an excessive flow of matters and energy. This point of view was developed by Princen (1999) to analyse the conceptual roots of consumption. This approach has the advantage of rooting human activities in ecosystems but it overlooks special characteristics of the human species and does take into account the non-biological reasons why humans consume excessively. It only informs us of the reality and threat of deteriorating ecosystems (Wallenborn 2007).

This research does not explore this approach in further detail. This approach is a good starting point, setting out the idea that if people consume less, humanity’s environmental impact will be reduced. However, consuming less is not the only answer. The other approaches are more useful in improving our understanding of ways to make a transition towards sustainability.

2) Economic approach: consumers as rational economic agents

Economic theories see consumers as rational decision makers, wishing to benefit from the best deals available in any given market (Wallenborn 2007). In the classical economic approach, consumers are seen as rational beings, fully informed, maximizing their interests and with fixed and stable preferences. Consumers make calculated choices that are revealed through their purchases and show an awareness of prices. Economic research is often used to inform commercial decision making (Torjusen, Sangstad et al. 2004).

According to the theory of rational choice, individuals supposedly know their needs and how to satisfy them. These decisions are supposed to be independent of different situations and are used to maximize utility within a limited budget (Wallenborn 2007). The main tenet of the rational choice model is that consumers make decisions by calculating the individual costs and benefits of different courses of action and choosing the option that maximizes their expected benefits. This model focuses on individual self-interests and assumes that consumers have access to sufficient information to make informed choices about their available options. It does not take social structures into consideration (Jackson 2005).

The strength of the rational choice approach is that it accords with common sense in certain simple things; for instant, more money has more utility than less money (Herrnstein 1990). Many rational choice theorists believe that no theory is capable of describing behaviour better than rational choice theory. They believe that real behaviour is too confusing to be accounted for with any accuracy (Herrnstein 1990).

However, the rational approach has been criticized since it neglects the role of institutions and social relations. It provides a model of the consumer as being static and fails to explain, for example, why people make commitments to collective actions. The model only credits the consumer with a unique and narrow rationality, focused on the act of buying (Wallenborn 2007).

This research accepts that consumer behaviour is influenced by economic considerations but that other factors are also at play. Many people are prepared to pay a premium for organic products. Gil et al. (2000) found this in Italy and Boccaletti and Nardella (2000) found that Italian consumers were generally aware and afraid of pesticide residues and 70 per cent of the respondents were willing to pay 10 per cent higher prices for pesticide free products. This willingness to pay would be higher if the products and the certification process were clearly recognizable by consumers (Boccaletti and Nardellab 2000). Another survey in Italy showed that customers were willing to pay a premium of up to 20 per cent when provided with better information and trusted the products / producers (Boccaletti and Nardellab 2000). Yiridoe et al. (2005) reviewed several studies in North America and found groups of consumers who were willing to pay price premiums for organic products. Jolly (1991) found that US consumers were willing to pay a 37 per cent price premium for organic products. Goldman and Clancy (1991) reported that a third of the respondents in a New York survey were willing to pay 100 per cent price premium for a residue-free products. Goleman (2009) concluded that higher prices made claims more credible and increased sales. Similar results have been found in the European Union (EU) (O'Donovan and McCarthy 2002; Yiridoe, Bonti-Ankomah et al. 2005). A study of consumers in the UK also reported that buyers were willing to pay a price premium of up to 30 per cent (Hutchins and Greenhalgh 1995). An earlier study from Thailand (Panyakul 2004) showed that costs (higher prices) prevented only 8.4 per cent of respondents from buying health foods.

So the economic factor is not enough to explain overall consumer behaviour. Individuals make 'rational' decisions based on cost and perceived benefits - but these vary between individuals and the economic approach cannot explain why. For instance, a family with small children might be willing to pay a higher price for safe and nourishing food. Consequently, spending behaviour is perhaps better explained by considering psychological or social dynamics, as explored in the following sub-sections.

3) Psychological approach: consumers are motivated by their attitudes

Many studies try to explain environmentally responsible behaviour through an analysis of attitudes. These theorists use a cognitive framework when dealing with the thinking process since they believe that some factors, such as attitude (Ajzen, Fishbein et al. 1980), can be used to predict consumer behaviour (Torjusen, Sangstad et al. 2004). For example, if consumers are given enough information about environmental problems, their new found awareness will lead to them to adopt more environmentally friendly behaviour (Thogersen 1998; Torjusen, Sangstad et al. 2004).

Brown and Cameron (2000) suggested that changing values that influence consumption patterns first requires changes in consumers' attitudes. Stern (1999) has developed a model of behaviour towards the environment presented as a hierarchy with eight levels of causality. This hierarchy implies two things. First, attitudes determine behaviour but attitudes have more sway over actions if those actions are easy and not costly. Second, the individual is the main unit of analysis while the natural and social environments are not considered (Wallenborn 2007).

Jackson (2005) sees Adjusted Expectancy Value Theories and moral and normative conduct as central aspects of this approach. Adjusted Expectancy Value Theories explains how choices are made on the basis of expected outcomes and the value attached to those outcomes. A range of adjusted social psychological models of consumer behaviour have sought to use this idea as a basis to go beyond assumptions of rational choice. Some theorists have tried to expand the structure of the rational choice model in various ways. In particular, they have attempted to account for the influence of other people's attitudes on individual behaviour (Jackson 2005). Examples of such approaches include Ajzen and Fishbein's Theory of Reasoned Action (Fishbein 1979)and Ajzen's Theory of Planned Behaviour (Ajzen 1991).

Moral and normative considerations are inherent in any discussion of environmentally benign consumer behaviour. The psychological approach aims to understand the dimensions of moral or pro-social behaviour (Jackson 2005). For instance, Schwartz's Norm-Activation Theory (Schwartz 1973) suggests that moral behaviour is the result of a personal norm to act in particular way. The theory holds that altruistic (including pro-environmental) behaviour occurs in response to a personal morality driven by a belief that particular conditions pose threats to one's self or others and personal actions can avert those consequences. Another example of moral dimensions influencing pro-environmental behaviour is Paul Stern's Value-Belief-Norm theory, an attempt to explain a chain of influence from people's value sets and beliefs to the emergence of a personal norm to act in a given way (Stern, Dietz et al. 1999). Cialdini's Focus Theory of Normative Behaviour (Cialdini, Kallgren et al. 1991; Kallgren, Reno et al. 2000) also suggests that people's behaviour is influenced by social norms that prescribe certain behavioural options (Jackson 2005).

The psychological approach defines a consumer's power through individual choice and can be incorporated within the economic model. Jackson (2005) sees these models as useful in understanding the structure of some intentional actions but also claims that they overlook some aspects of consumer behaviour i.e. the normative, affective, and cognitive dimensions. Wallenborn (2007) also argued that the model can explain specific behaviour and attitudes. However, when behaviour and attitude are analysed in general, a wider sociological approach is required. In this case, observed behaviour can be better explained in relation to social situations.

In summary, the psychological approach explores what people think and adds value to the economic approach because it can explain reasons besides price (such as attitude-behaviour) that affect individual decision making. However, the psychological approach still focuses on individual behaviour. The social approach extends this by seeking to explain individual behaviour in a broader social context.

4) Social approach: situations and practices

Identifying the practices of consumers requires studying the activities, routines and habits that shape the acts of consumption. These practices reproduce the social situations in which consumer behaviour is performed (Boltanski and Thévenot 2006). Environmentally friendly actions carry a meaning shared with others. In short, consumers' power to change consumption patterns is influenced by the situation. Social practices refer more to continuing actions (lifestyles) than individual behaviour (Wallenborn 2007). Well-known examples of this approach include Giddens' Structuration Theory (Giddens 1984) and Spaargaren's Ecological Modernization Theory of Production and Consumption (Spaargaren 1997).

Jackson's 2005 work, Against Rational Choice, the Matter of Habit, and Sociality and Self model also follows this approach. The Against Rational Choice model was developed to provide a critique of the rational choice model. One central criticism is that it overlooks the ability of the individual to take deliberate action. Another issue is that emotional responses often confuse cognitive deliberation giving rise to behaviour that is rather based on emotional response than on conscious deliberation. The work also attacks the assumption of self-interest that underpins the rational choice model. It points out that human behaviour consists of social, moral, and altruistic behaviour as well as self-interest. Behaviour is generally embedded in a social context. Social and interpersonal factors continually shape and constrain individual preferences and behaviour.

This approach also includes the Matter of Habit model. In practice, much everyday behaviour is carried out with little conscious deliberation. Proponents of habitual behaviours argue that habit is one of the key challenges for behavioural change, since much environmentally significant behaviour has this routine character (Jackson 2005).

Another important model is Sociality and Self. Some social theories suggest that our behaviour, attitudes, and concept of self are socially constructed. These theories provide evidence about the importance of society in influencing environmentally significant behaviour. They also suggest that behavioural change must occur at the collective, social level. Individual change is not feasible or sufficient in itself (Jackson 2005).

This approach leads to a reassessment of the organization of production and consumption from a consumer-oriented point of view: an approach that is recognized as a key concept for better understanding the dynamics of industrial societies. This approach is rooted in the idea of sustainable development by understanding the role of consumption and the potential for sustainable development. It has developed a set of tools, among which participation and eco-efficiency are starting points (Wallenborn 2007). A further strength of this approach is that, unlike the others discussed above, it does not view consumers as passive agents who are dependent on external systems (Spaargaren 2003). Since the 1990s consumers have been increasingly viewed as social actors, actively engaged in social practices (Oosterveer 2005): they are "active social agents" (Warde 1997) who are able to weld control over the main actors involved in providing green alternatives (Spaargaren 2003). This study follows this line seeing consumers as active agents who are capable of making use of green possibilities that are offered to them through different systems of provision (Spaargaren 2003).

2.3 Integrative Theories of Consumer Behavior; the Social Practice Approach (SPA)

While these four approaches have their own advantages for analysing sustainable consumption they also have some significant weaknesses. For instance, the economic factor is relevant for describing consumer behaviour but purchasing behaviour cannot be explained solely in these terms. Other factors besides price also play a role. The psychological approach tries to explain these different motivations. However, both the economic and psychological approaches focus on individual behaviour and overlook aspects of the wider social context. As a result, an integrative theory of consumer behaviour, called the “Social Practice Approach,” was selected to be the conceptual model for this research as the most promising vehicle for understanding sustainable consumption from a dynamic social perspective.

Making sense of consumer behaviour requires a multi-dimensional perspective that includes internal and external elements: motivations, attitudes and values, contextual or situational factors; social influences; personal capabilities and habits (Stern 2000). The questions whether consumers are ‘free’ to make choices about their own actions or whether they are bounded by forces outside their control has provoked a long debate in the social sciences. This debate, about the relative influence of human agency and social structure, is described in Gidden’s structuration theory which attempts to show how agency and structure relate to each other (Jackson 2005).

This argument underpins the choice of integrative theories of consumer behaviour in providing the theoretical framework for this study. The assumption is that consumers are influenced by both sides; by psychological mechanisms (attitudes) and by changes in society (the social structure or system of provision). Thus, the social practice approach is used as the methodological basis of this study. The content of this social practice approach is elaborated below.

The social practice model was developed as a consumer oriented approach within environmental sociology. The model builds on the assumption that individual subjectivity is mediated through social interactions (Giddens 1984). Social interactions are what give individuals access to language, inter-subjective interpretation, meaning and knowledge. The social practice model contains three fundamental explanations about the nature of social interaction (Jackson 2005); reflexivity (the on-going flow of social life), recursiveness (the production and reproduction of social practices) and regionalization (time-space differentiation of social process).

Using these concepts Giddens (1984) constructed a model of the interconnections between ordinary everyday routine actions and social institutions. Individual and collective agency are the means through which complex patterns of social interaction are produced, regularized, extended and reproduced. In terms of understanding consumption behaviour, one of the most important elements in the structuration theory is the distinction between ‘practical’ and ‘discursive’ consciousness (Jackson 2005).

Practical consciousness is the everyday life knowledge that people have about how to do things. It draws on a huge wealth of commonly accepted knowledge concerning how to go on about things. Giddens (1984) suggests that the bulk of human activity is based on using this kind of practical consciousness in the context of familiar, routine situations, and behavioural contexts. Discursive consciousness refers to what social actors are able to say about the social conditions of their actions. It presupposes that social actors have an awareness of their actions and that this awareness takes a discursive form.

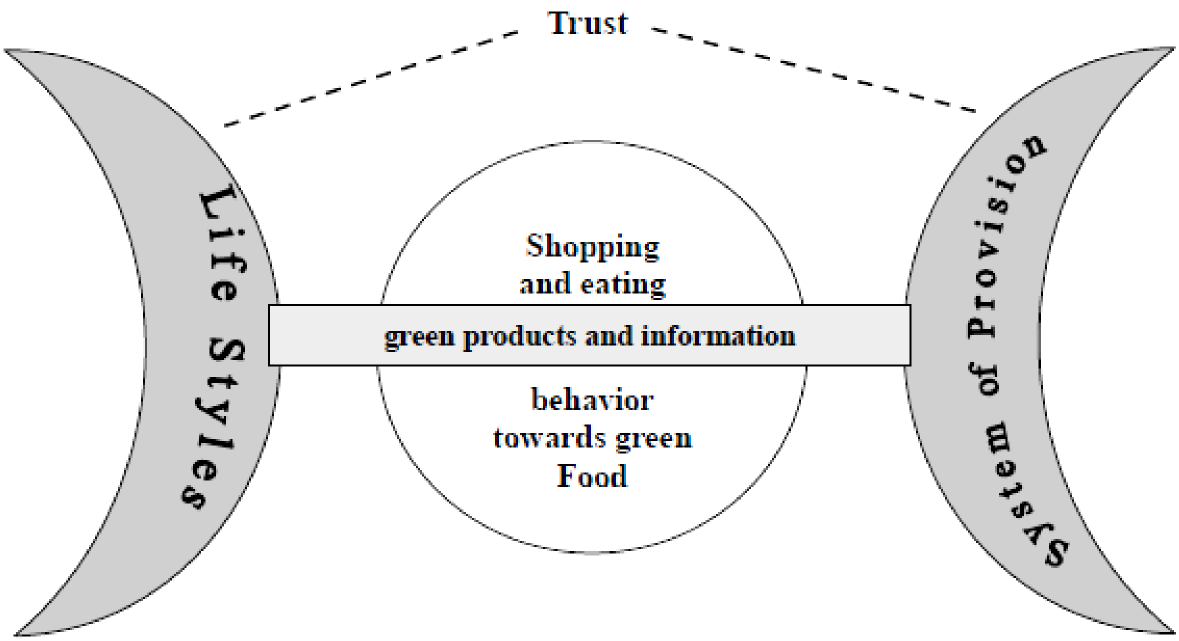
For Giddens, social theory had been caught in the dualism between structure (objectivism) and agency (subjectivism). For action theory, the concentration on agency leads to a concept of the social as the sum of individual actions, and hence to the inability to define any limitations on action (voluntarism) and blindness to the ways in which social structures limit agents' capacities (subjectivism). In structuralism and functionalism, the emphasis on structures leads to the social being conceptualized as an independent system or entity, unaffected by the agents who comprise society. This has led to the inability to recognize the efficacy of subjective agency (determinism) and a tendency to identify individual capacities with the requirements of the system (objectivism). The theory of structuration conceptualizes social practice in a way that seeks to mediate between structure and agency. From this concept, Giddens developed the theory of the "duality of structure", in which structures are both the result and the medium of the actions of agents engaged in social practices. On the one hand, actors are forced in their actions to follow existing rules (Boucher 2003). On the other hand, these structures are in turn confirmed and reinforced by the actors' actions (Spaargaren 1997). Society is viewed as a structuration process through which human actions are both structured by and themselves structuring the social and structural determinants of society (Boucher 2003).

The distinction between practical and discursive consciousness clearly has some implications for the social psychological understanding of routines and habits. It also has some important implications in terms of motivating pro-environmental behaviour. Spaargaren and Van Vliet (2000) have suggested a model of consumption that is composed of a set of social practices, influenced by social norms and lifestyle choices, as well as by the institutions and structures of society. They suggest that shifting consumption patterns requires us to 'raise' routine behaviours from the level of practical consciousness to discursive consciousness. Most everyday, routine, actions are performed in a state of practical consciousness. But there is evidence to suggest that intentional or goal-oriented behaviour requires discursive consciousness (Spaargaren and Van Vliet 2000). This insight is important in developing strategies to change habitual behaviour. This insight makes the social practice model (shown in Figure 2-1) appear the most suitable approach for studying sustainable consumption in Thailand and how consumers can be encouraged to adopt alternative behavioural patterns.

The social practice model examines the possibilities for reducing the overall environmental impact of normal daily routines. The model analyzes the process of reducing the environmental impact of consumption in distinct domains of social life through the intentional actions of knowledgeable and capable agents making use of the possibilities offered to them by a specific system of provision (Spaargaren 2003).

Green products and services are embedded in socio-technical networks that embrace specific groups of producers, retailers, consumers and numerous other relevant actors in the food supply chain. To understand why, how, and to what extent people accept new products within their daily domestic routines, one has to study the ways in which these socio-technical devices are produced, made available, acquired and used by different groups in the chains of production and consumption (Spaargaren 2003). Social structures are reproduced by knowledgeable and capable agents who are able to provide comments, reasons, and explanations for what they are doing and how they are doing it. The general principle of treating people as accountable human agents is also relevant for issues of 'green lifestyles' and sustainable consumption patterns.

Figure 2-1 The Social Practice Model



2.4 The Operationalization of the Social Practice Model in an Urban Thai Context

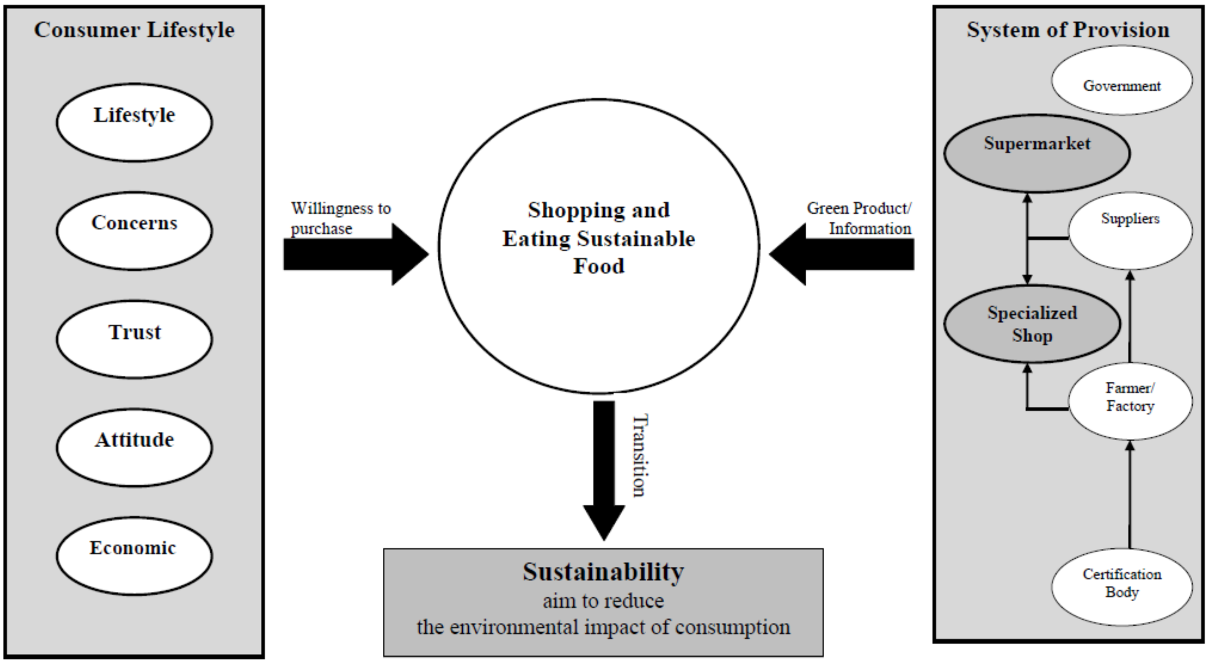
This section explains how the Social Practice Approach was used in the research. As a first step, the Social Practice Approach helped the researcher to understand what is happening in the urban centres of Thailand, in terms of consumer lifestyles and their concerns and perceptions about food safety risks and the environment.

Figure 2-2 shows the Social Practice Model within the specific system of provision in Bangkok. The social practice of shopping and eating sustainable food is placed in the middle as the centre of analysis. To understand this practice, it is important to discuss both the right and left hand sides of the model.

The centre of the model refers to the practices of shopping and eating sustainable food. Here we can observe three levels at which sustainability is represented: the visual level, the shop level and the product level (Oosterveer, Guivant et al. 2007). The visual level is the first step of the analysis. This concerns the first impression of how sustainability is presented when entering the shop. Next, the message at the shop level is assessed – in terms of the available information, images, messages, products and services. The last, and most specific, level is the product level, which is assessed by considering images and information available about the production methods for specific foods (Oosterveer, Guivant et al. 2007).

We can then focus on the two sides of the SPA model. The right hand side of the model depicts the systems of provision of sustainable food in urban Thailand. The actors involved in the systems of sustainable food provision i.e. the government, farmers, factories, suppliers, and distribution channels are depicted and the ways in which sustainable food supply chains are organized are defined.

Figure 2-2 The Social Practice Model within the Specific System of Provision in Bangkok



The Social Practice Approach has more frequently been applied to analyze consumption practices in a supermarket, as can be seen in previous studies in Europe (Oosterveer, Guivant et al. 2007; Korbee 2008). However, in urban Thailand supermarkets are not the only available sources of green food. There is also another kind of channel: specialized shops. These make up the two distribution channels for sustainable foods depicted in the right hand side of the model. The strategies and system of green food provision offered by supermarkets and specialized shops in urban Thailand are discussed in this study.

The left hand side of model defines the factors that influence the shopping and eating of sustainable foods. As discussed in the previous section, consumer behaviour cannot be explained in terms of one single factor. Five factors are identified here as influencing sustainable food consumption practice; lifestyle, concerns, trust, attitude, and economics.

Oosterveer et. al (2007) have elaborated a sociological definition of sustainable food which identifies four relevant dimensions. These are discussed below and applied to the Thai context.

1) **Food safety** concerns, which stem from contemporary food risks, such as the presence of pesticide residues and some food-related diseases. These are difficult for the layman to assess (Oosterveer, Guivant et al. 2007). A series of food crises such as BSE,

dioxins, and foot-and-mouth disease has led the general public in Europe to become increasingly critical about food quality and safety (Jensen and Sandøe 2002; Grunert 2005; Vermeir and Verbeke 2006). According to Bourn et al (2002), consumers frequently cite health concerns, and specifically low or no pesticide residues, as key reasons for consuming sustainable food.

2) Conventional food production methods give rise to substantial **environmental concerns**, particularly in terms of eroding biodiversity among plants and animals; polluting the soil, water, and air and consuming water at unsustainable rates (Horrigan, Lawrence et al. 2002). These environmental concerns lead some producers to manage eco-systems in such a way that future generations are not deprived of a well-functioning basis for sustaining human life, and some consumers to include these concerns in their consumption practices (Oosterveer, Guivant et al. 2007).

3) **Naturalness** refers to unadulterated food and the use of natural processes during their production (Oosterveer, Guivant et al. 2007). For consumers, natural food is related to less interference, less processing and no additives. Naturalness in value of sustainable agriculture not only connects to no chemical but also the respect for ecological princi[les and the integrity of living nature (Verhoog, Matze et al. 2003).

4) **Animal Welfare** is related to the standards of life of (farm) animals, whether they are free range, are routinely given growth hormones, and treated in a humane manner (Verhoog, Matze et al. 2003). In the US and Europe multidisciplinary approaches towards animal welfare have been developed which have informed farm legislation and regulation (McGlone 2001). Animal welfare concerns are currently more prominent in Western Europe than in most Asian countries (McGlone 2001; Oosterveer, Guivant et al. 2007).

The relevance and concern over these four issues vary between different groups of consumers. Different combinations of these concerns can be expected to exist in Western Europe and urban Thailand. According to McGlone (2001), consumers in developed countries firstly demand food that is safe and secondly that it protects the environment. These two issues are also the main motivations for sustainable food consumption in Thailand (Roitner-Schobesberger 2006). The animal welfare issues are not yet important in Thailand.

Food safety is the first priority for consumers in Thailand (Nelson 1991; Roitner-Schobesberger 2006). Thai consumers have become more concerned about health risks related to contaminated food in recent years (Vanit-Anunchai and Schmidt 2004). Takeuchi and Boonprab (2006) argued that Thai consumers are aware of food safety problems such as chemical contamination, the personal hygiene of food vendors, bacterial contamination, bird flu and genetically modified food. Roitner-Schobesberger (2008) confirms that consumers in Thailand increasingly demand safe foods and that this is largely a response to food scares related to high levels of pesticide residues sometimes found on vegetables and fruits. But there is a link between food safety concerns and sustainability – chemical contamination in food is often linked to the overuse of chemicals, so concerned consumers seek food that has had no (or a limited) application of chemical (fertilizers) and toxins (pesticides and herbicides) in the production process. These kinds of foods are not only safer for human health but also safer for the environment. Persistent chemical substances which accumulate in the body – mutagens, carcinogens, and teratogenics – affect human health (Green Net 2008) and also pollute the soil, water, and air (Horrigan, Lawrence et al. 2002). Raven (2008) identifies further environmental impacts associated with the use of chemical substances in agriculture. Insects rapidly develop immunity to resist pesticides leading farmers to apply larger amounts of pesticides. Second, rapidly decreasing and (later) increasing numbers of the insect population unbalances the ecosystem. Thirdly, chemical concentrations in the food chain will increase. Insecticides can contaminate nearby water sources and affect water-dwelling animals and fish. Birds and other animals higher in the food chain will also be affected by these chemical concentrations.

The centre of the model is the focus of this research, which begins by studying the providers and later the consumers. This line of investigation is pursued for several reasons. First, providers have substantial power to lead other actors in the supply chain, suppliers, producers and farmers, to work in a more sustainable way. Second, providers have the ability to create substantial, sustainable, food markets through their offers and promotions (Konefal 2007). Third, from an action-oriented perspective, concentrating on a few providers is easier than educating and mobilizing large numbers of consumers: starting with a small number of actors on the provider side can potentially achieve these goals faster than working with many people on consumer side. Lastly, consumers can change their attitudes and preferences all the time (Konefal 2007). Consequently, focusing on the provider side first is a more effective way of making a transition towards sustainable food consumption.

2.5 Overview of the Research Methodology

This section provides an overview of the research methods used in this study. The underlying reason for selecting each method is explained here and the details of each method are presented in the relevant chapters.

This study uses a combination of qualitative and quantitative research methods. Methods are a means to an ends. The key to good research lies not so much in choosing the 'right' method, but rather in picking up the most powerful method for answering a particular question (Bouchard 1976). Different methods were carefully selected to address the different research questions in the different chapters. Qualitative methods, such as participant observation and focus group meetings, were used more in the early stages of this study. These were followed by a survey that provides more precise quantitative data from larger samples of respondents (Morgan 1997; Stewart, Shamdasani et al. 2007).

The field research begins with observing what is happening in the retail sectors, specialized shops and supermarkets in particular (Chapter 4). This participant observation approach is based on the theory that an interpretation of an event can only be correct when it is a composite of the two points of view, the outside (observer) and the inside (participant) (Bouchard 1976). Becker and Geer (1957) argued that participants explaining the meaning of their actions provide the most complete sociological data. Bruyn (1963) argued that participant observation is widely used in traditional and contemporary research because it helps the researcher understand and explain the meaning of a phenomenon. During this participant observation process the researcher acted like a customer visiting a shop - the specialized shops and supermarkets were not informed of the visit.

The focus group method was applied to providers and consumers. Focus groups are a form of group interview that enables communication between research participants and thus generates data (Kitzinger 1995). Participants are encouraged to exchange stories and experiences with each other (Kitzinger 1994). The focus group method was applied in this research to understand the strategies of providers and to hear the responses of consumers. This method is useful for exploring people's knowledge and experiences and can be used to examine not only what people think about, but also how they think and why they think that way (Kitzinger 1995). The focus group method was also useful for this study as the group process can help people to explore and clarify their views in ways that are not available in a one-on-one interview (Kitzinger 1995). In the focus group with the providers, the specialized shop participants were assigned a group task of developing strategies that would be effective in encouraging larger groups of consumers to buy sustainable food. Through this process the participants were able to share their ideas and experiences and seek effective outcomes. However, there were difficulties in getting supermarket representatives to attend a focus group. The supermarket's managers claimed that they were unable to leave their work to participate in the focus group because of time limitations. As a result, one-on-one interviews were used to collect data from supermarkets. Interviewing is widely used to systematically collect data (Bouchard 1976). Open-ended questions were sent to the supermarkets beforehand to ensure that the supermarkets would assign the right informants to the interviews. The supermarket representatives were asked about their perspectives and potential strategies for the supermarket to increase sustainable food sales.

The focus group method was also used for discovering what consumers thought about the different strategies. Kitzinger (1995) argued that a group discussion is particularly appropriate when an interviewer has a series of open ended questions and wishes to encourage research participants to explore the issues that are of importance to them. In the focus group discussions with consumers, the participants were informed about the strategies developed by providers and asked about the benefits and disadvantages of each strategy as well as their priority among these strategies.

The number of participants in the focus group discussions in this study is around ten. In general, most focus groups consist of 6-12 people (Lewis 1999). Merton et al. (1990) suggests that "the size of the group should be governed by two considerations...it should not be so large as to be unwieldy or to preclude adequate participation by most members nor should it be so small that it fails to provide substantially greater coverage than that of an interview with one individual" (Merton, Lowenthal et al. 1990). With around ten people, everybody can share their ideas with the other participants during the discussion. This size of group also makes it possible to divide the participants into sub-groups for specific assignments. With a small number of participants, this is not possible. Also, if the group is too small there is the risk of not having enough input or different views while some individuals may dominate the discussion.

The consumer survey was used in the final stage of this research and enabled the researcher to collect data that allowed for a systematic comparison between groups (De Vaus 2002). The samples in this study were divided into three main groups; green consumers, premium general consumers and general consumers. The objective of the survey was to bring out the lifestyles and behaviour of these three groups by comparing their knowledge, attitudes and experiences as well as the strategy for increasing sustainable food that would appeal to them the most. The results of the consumer survey helped us to identify which provider strategies would match best with the expectations and lifestyles of each consumer group.

Chapter 3 Overview of Food, Food Providers, and Consumers in Urban Thailand

3.1 Introduction

These days, food shopping and eating in Thailand and neighbouring countries in Southeast Asian are dramatically changing. Changes to a more urban and consumer way of living are important factors in the rapid development in the retail food sector in Thailand and other countries in Southeast Asian (Tokrisna 2005; Dixon, Omwega et al. 2007; Pingali 2007; Shannon and Mandhachitara 2008; Mergenthaler, Weinberger et al. 2009). Increasing numbers of working women resulted in less time for cooking and a decreasing frequency in fresh food shopping, thus there is a need for convenience buying (Tokrisna 2005; Traill 2006). Compared to the neighbouring countries such as Singapore, Indonesia, Philippines, and Malaysia,Thai woman play a high role in earning money for families (Yasmeen 2006). Likewise, the increasing liberalization of the commercial environment in Southeast Asian countries has attracted modern retailers to open stores in this region (Alexander and Myers 1999; Pingali 2007). Reardon et al. (2003) argued that the supermarket revolution is taking off across Asia. By 2002, the share of supermarkets in the processed/packaged food retail market was 33% in Southeast Asia.

The history of eating out and buying prepared food in the region is briefly discussed here. The trend of purchasing prepared food to take home and eat began in the post-World War II era for two major reasons. The first reason was labour migrants' demand. In the case of Singapore, migrants from China and India have increased demand for prepared food, as they could not cook for themselves (Yasmeen 2006). Similarly Bangkok has also attracted many Chinese migrants. The eating habits and cuisines of Thai people are therefore a result of hybridization of Thai and Chinese ways (Yasmeen 2006). The second reason was that the number of women entering the urban workforce has significantly grown (Van Esterik and Nutrition 1992). As a result, most women have no time to cook and have income available to buy prepared food (Yasmeen 2006).

Stalls selling prepared food and snacks are common in Southeast Asia (Van Esterik and Nutrition 1992). In 1940s, Singapore which was still a British colony at that time started to eradicate street food vendors (McGee 1971). In 1970s, Singapore succeeded in establishing a zoning scheme which relocated mobile vendors to a government-operated hawker area (Yue-Man 1990). By the early to mid-1980s, street vendors in Singapore had nearly disappeared (Yasmeen 2006). In Thailand, there was a similar attempt when the Bangkok Metropolitan Administration tried to crack down on street vendors in 1993 because the street vendors were occupying too much area on the sidewalks (Yasmeen 2006). However, the hawkers in Bangkok negotiated for the right to use the sidewalks under some conditions, such as time period restrictions, leaving free space, and prohibiting vending for one day per week to allow for street cleaning (Yasmeen 2006). As a result, many street vendors can still be found alongside the sidewalks in Bangkok.

In 1986, the first food courts were established in Singapore shopping centres to replace traditional food vendors. Bangkok shows similar trends. As in Western cities, Southeast Asia's new middle classes are redefining their social and spatial environments to accommodate their more elegant tastes. Food sold in food courts tends to be standardized to provide more quality than food sold on the streets (Yasmeen 2006).

This chapter provides an overview of food, food providers, and consumers in urban Thailand. Section 3.2 introduces the readers to the area, population, infrastructure, current environmental problems, and politics of urban Thailand. The capital of Thailand, Bangkok city is taken as representative of urban Thailand. This section gives a general overview of Bangkok. Section 3.3 discusses the overall system of food provision in urban Thailand. The existing policies, actors, and the organization of food provision in urban Thailand are discussed in response to research question 1.4. Food standards in urban Thailand are also discussed in this section. Section 3.4 focuses on the first research question (1.1.1) concerning the key actors involved in the different food distribution channels. Section 3.5 addresses research question 1.2, looking at issues related to consumer trust, concerns and lifestyles in urban Thailand.

3.2 Urban Thailand: Bangkok City

Bangkok has been the capital of Thailand since 1782 (Bangkok Metropolitan Administration 2005; Harvey 2007). Over 200 years, Bangkok has developed the typical features of an urban district in South East Asia. Bangkok has been undergoing rapid urbanization and industrialization since 1960. The increasing population is due to the development of infrastructures such as road networks, real estate developments, land value, public policy as well as an advancing economy which resulted in expansion into the surrounding areas (Regional Resource Centre for Asia and the Pacific 2003). This section provides an overview of the area and population, infrastructure, and current environmental problems in Bangkok.

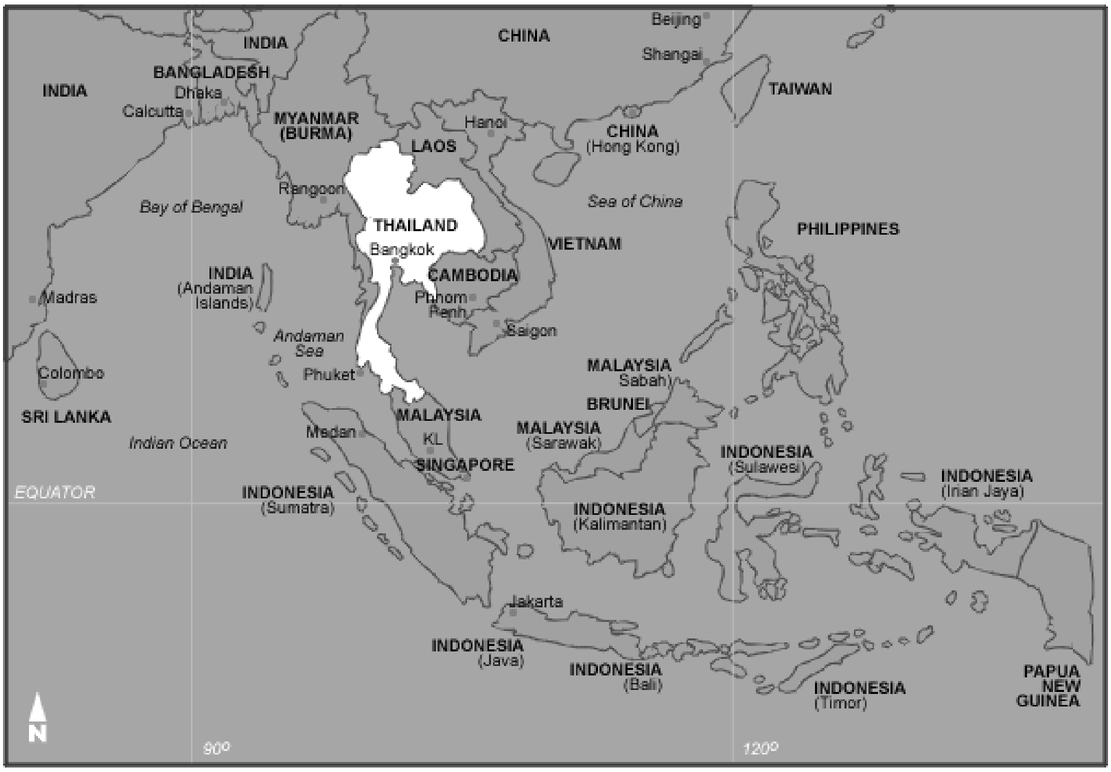
3.2.1 Area and Population

Thailand is located in Southeast Asia (Figure 3-1). Bangkok is the capital city of Thailand and located in the middle of the country. The head of the city is the governor who is elected every 4 years (Bangkok Metropolitan Administration 2005).

According to the Bangkok Metropolitan Administration (2005), Bangkok covers an area of 1,568.69 km^2, which consists of an urbanized area of 700 km^2 divided into residential use of 366.38 km^2 (23%), agricultural use of 369.84 km^2 (29%), space of 378.97 km^2 (24%), and for commercial, industrial, and government use of 453.50 km^2 (28.91%) (see Figure 3-2). The administrative organization is divided into 50 districts and 169 sub-districts. Bangkok can be roughly separated into the inner city, the urban fringe (middle area), and the suburbs (outer area). As shown in Figure 3-3, most of distribution centres for goods are located in the inner city area.

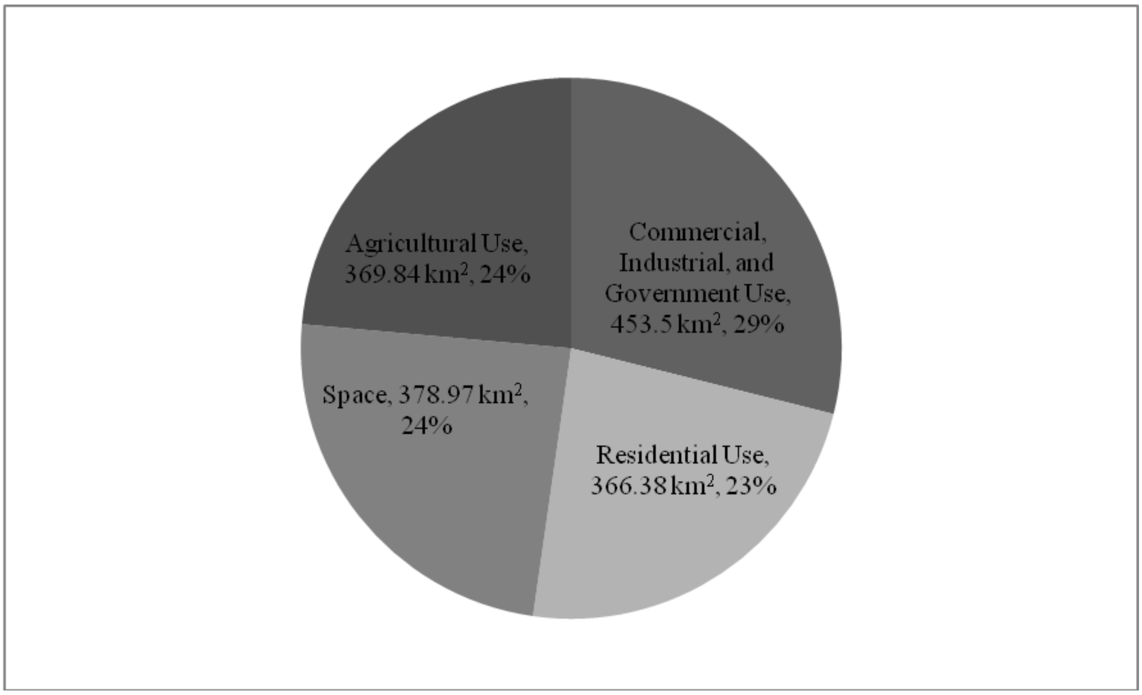
The total population in Bangkok at the end of 2009 was 5,702,595 divided between 2,713,535 males and 2,989,060 females (Department of Provincial Administration 2009). Bangkok is the largest city in Thailand and accounts or 8.98 per cent of the country's total population. Bangkok is quite densely populated, with 3,635.15 persons per km^2. The number of households in Bangkok in 2009 was 2,334,126, almost three times higher than Nakornratchasima Province which was the second largest city (Department of Provincial Administration 2009).

Figure 3-1 Map of South East Asian and Location of Bangkok



Source: http://www.thailand-maps.com/south-east-asia-map.htm

Figure 3-2 Land Use of Bangkok

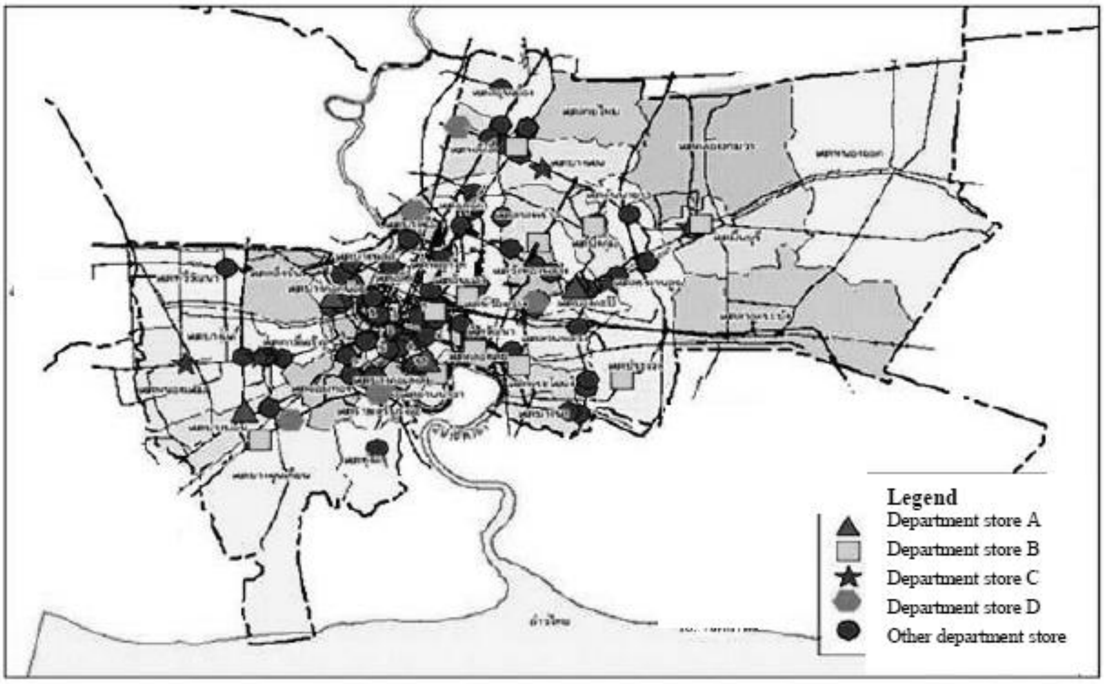


Bangkok has been undergoing rapid urbanization and industrialization since 1960. The increasing population is due in part to the development of infrastructure, such as road networks, real estate developments, land value, and a growing economy (Bangkok Metropolitan Administration 2005). Bangkok dominates the entire economic structure of the country and it is the centre of commerce, finance and trade as well as nearly every other sphere of Thai cultural, political, religious and educational life (Fuller, Edwards et al. 1993). As a result, there has been a continuous migration of people to the city from all parts of the country (Bangkok Metropolitan Administration 2005). According to DOPA's statistics (Department of Provincial Administration 2009) Bangkok has the highest ratio of migrants. The ethnic origin of people in Bangkok is mixed between Thai (80%), Chinese (10%), and others (10%). The majority (95 per cent) of people are Buddhist (Bangkok Metropolitan Administration 2005).

3.2.2 Infrastructure

Bangkok is the centre of business and administration of the country and is well supplied with infrastructure for water, electricity, and transport (Bangkok Metropolitan Administration 2005). Transportation in Bangkok comprises of private cars, motorcycles, and other kinds of public transportations such as taxi, bus, sky train, subway, and boat (Bangkok Metropolitan Administration 2005). The routes of Bangkok Mass Transit System (BTS) and Mass Rapid Transit (MRT) are indicators of urbanization and cover much of the central city and many commercial, residential and tourist areas (Bangkok Mass Transit System and Plc. 2003).

Figure 3-3 Location of Goods Distribution Centre and Department Stores in Bangkok Metropolis (2002)



Source: Department of Policy and Planning (2004)

Although many transportation systems are provided, traffic congestion problems stubbornly remain, becoming ever stronger, complex and difficult to manage due to unsystematic planning (Rujopakarn 2003).

3.2.3 Current Environmental Problems in Bangkok

Urban air pollution resulting from traffic is a major problem in Bangkok (Ruchirawat, Settachan et al. 2007). Traffic generates many environmental problems such as air pollution, noise, and dust. In 2008, the maximum PM-10 in 5 sampling stations in Bangkok exceeded the standard of 120 µg/m^3 (Pollution Control Department: 2009). The maximum noise level at roadsides in the Bangkok Metropolitan area in 2008 was 82.1 dB(A) which exceeded the standard of 70 dB(A) (Pollution Control Department 2009).

Air pollution also generates health problems among people in urban areas. A study conducted by Ruchirawata (2007) confirms that children living in Bangkok are more exposed to higher levels of carcinogenic air pollutants, such as Polycyclic Aromatic Hydrocarbons and benzene, than children in rural areas, who are exposed to much less traffic congestion (Ruchirawat, Settachan et al. 2007). The study also indicated that Bangkok school children exposed to polluted urban air were at a greater risk of contracting cancer.

3.2.4 Thai Politics and Protests in Bangkok

The most important moments in Thai politics in the 20th century was the democratic revolution of 1930 when the revolutionists seized power from the King. The political system of Thailand changed from absolute monarchy to a democratic form of government with the King as Titular Head of State (Office of the Council of State of Thailand 2007). According to the latest constitution in 2007, the sovereign power belongs to Thai people. The King as Head of the State exercises power through the National Assembly, the Council of Ministers and the Courts in accordance with the provisions of Thai constitution (Constitution Drafting Commission 2007).

The current King of Thailand is King Rama IX who became King on 9 June 1946. Over the 60 years of his reign, his Majesty has established 191 development projects in relation to water, agriculture, environment, career development, transportation, and social welfare (Office of the Royal Development Projects Board 2009). These royal projects has have helped sustainably improve the quality of life of many Thai people, who genuinely respect and admire their King.

The socialists have repeatedly called for more democracy and protested against the government many times since 1930. The most important protests, during which many people died, occurred in 1973, 1976, and 1992. The main cause of these three protests was corruption and the military dictatorship. Although the King's power has decreased due to democracy, His Majesty still played an important role in Thai political history. After the massacre in 1992, the King stepped-in to mediate the uproar and appoint a new Prime Minister.

The latest, and on-going, political conflict started in 2001 when Mr Thaksin Chinnawat won the election and became the 23^{rd} prime minister of Thailand (Aurel, Daniel et al. 2005). Since Thaksin (personally a billionaire) came to power the national economy of Thailand has dramatically grown.

In 2004, a group of socialists called the "People's Alliance for Democracy" (PAD – Against Thaksin) protested about Thaksin's alleged corruption and conflicts of interest. A military coup occurred on 19 September 2006 when Thaksin was abroad. After the coup, the army-initiated International Security Bill received cabinet approval on 19 June 2007. A new socialist group, the National United Front of Democracy against Dictatorship (UDD – Support Thaksin) was set up to drive out the non-elected cabinet. The UDD stopped its first protest in the end of 2007 when Mr Samak Sundaravej won the election. PAD however started new protests opposing Samak’s government since he was a nominee of Thaksin.

Recent political turmoil has greatly damaged the national economy. The PAD shut down the national airport on 24 November 2008 in an attempt to push out a nominee of the government (BangkokPost 2008). The constitutional court decided to dissolve the main political party supporting the government on 2 December 2008 and the PAD-led mob moved out from the airport the following day.

In April 2009 and March-May 2009 protests supporting Thaksin led by the Democrat Party (UDD) led to the occupation of the inner city area, including Ratchaprasong where many shopping malls were forced to close (Bangkok Post 2010) and several were fire mobbed by protestors. The retailers located within the area affected by the demonstrations were closed throughout the protest. Some supermarkets, such as the Central Food Hall and one branch of Big C, were burned by the protesters and had to be renovated before opening up again. Other stores such as Seven-Eleven and Foodland who claim “we never close” had to close earlier due to the curfew. During this time many people bought lots of dried foods during the day time to have a stock of food to ensure they would have enough to eat. At this point it is too early to state the long-term impacts of these protests on supermarkets and specialized shops in Bangkok.

3.3 The System of Food Provision in Thailand

This section describes how the system of food provision in Thailand is organized. First, the actors involved in the system of provision and their roles are clarified. Second, the national food regulation and policy approach are presented.

3.3.1 Overview of Food and the System of Food Provision

Thailand is a newly industrialized country. Table 3-1 shows that most of country’s GDP is derived from non-agricultural sectors. However, the national income from agricultural sector has slightly increased each year. Although income from non-agricultural sector dropped in 2009, income from agricultural sector still increased (Office of the National Economic and Social Development Board 2008).

According to the National Statistical Office, 5.8 million people in Thailand were engaged in the agricultural sector in 2008 and the total agricultural area was 18.02 million hectares. More than half of the agricultural land was rice paddy fields (50.6%), followed by crop fields (19.7%) (National Statistical Office 2008). Thailand is a major rice producer and ranks among the world’s largest rice exporters (Wong 1978; Thai Rice Exporters Association 2010).

The main actors involved in the system of food provision in Thailand include producers (farmers and factories), suppliers, and the market place. There are also external actors, for example, the government, NGOs, and the media who are able to influence the system of food provision. Thailand had several identifiable provisioning systems. These systems of provision vary and depend on the type of food products. This section describes three general systems of provision in Thailand; the old style system of provision, the central market, and contract farming (Figure 3-4).

Table 3-1 Gross Domestic Product and Gross National Product of Thailand at 1988 Prices by Economic Activities

(Millions of Baht)

	2004	2005	2006	2007	2008	2009
Agriculture	**354,431**	**347,892**	**365,428**	**369,772**	**385,225**	**390,362**
Agriculture, Hunting and Forestry	296,996	288,835	301,608	306,747	320,058	322,342
Fishing	57,435	59,057	63,820	63,025	65,167	68,020
Non-Agriculture	**3,333,758**	**3,510,127**	**3,689,076**	**3,889,254**	**3,979,608**	**3,872,777**
Mining and Quarrying	80,837	88,081	91,585	95,088	95,280	96,105
Manufacturing	1,426,338	1,499,882	1,588,105	1,686,372	1,751,411	1,645,015
Electricity, Gas and Water Supply	122,525	129,004	135,114	141,975	147,603	148,880
Construction	88,790	93,809	98,086	100,511	95,190	95,551
Wholesale and Retail Trade; Repair of Motor Vehicles,						
Motorcycles and Personal and Household Goods	517,310	541,934	560,218	591,030	596,735	594,785
Hotels and Restaurants	133,324	136,165	151,267	157,858	160,430	160,017
Transport, Storage and Communications	366,290	383,925	407,682	432,037	429,933	413,666
Financial Intermediation	125,723	136,342	140,719	148,575	160,938	167,346
Real Estate, Renting and Business Activities	143,581	151,225	159,500	164,607	168,739	170,597
Public Administration and Defence; Compulsory Social Security	111,795	116,267	115,298	120,583	122,161	122,260
Education	89,821	96,138	99,343	109,095	109,423	115,190
Health and Social Work	43,678	48,515	50,938	54,680	54,263	55,346
Other Community, Social and Personal Service Activities	80,066	85,155	87,619	83,148	83,740	84,186
Private Households with Employed Persons	3,680	3,685	3,602	3,695	3,762	3,833
Gross Domestic Product, (GDP)	**3,688,189**	**3,858,019**	**4,054,504**	**4,259,026**	**4,364,833**	**4,263,139**
Plus : Net Factor Income Payment from the Rest of the World	-228,018	-243,838	-201,386	-194,937	-137,885	-153,069
Gross National Product, (GNP)	**3,460,171**	**3,614,181**	**3,853,118**	**4,064,089**	**4,226,948**	**4,110,070**
Per Capita GDP (Baht)	**57,154**	**59,264**	**61,831**	**64,491**	**65,654**	**63,721**
Per Capita GNP (Baht)	**53,620**	**55,518**	**58,760**	**61,539**	**63,580**	**61,433**
Population (1,000 Heads)	64,531	65,099	65,574	66,041	66,482	66,903

Source: Office of the National Economic and Social Development Board, 2008

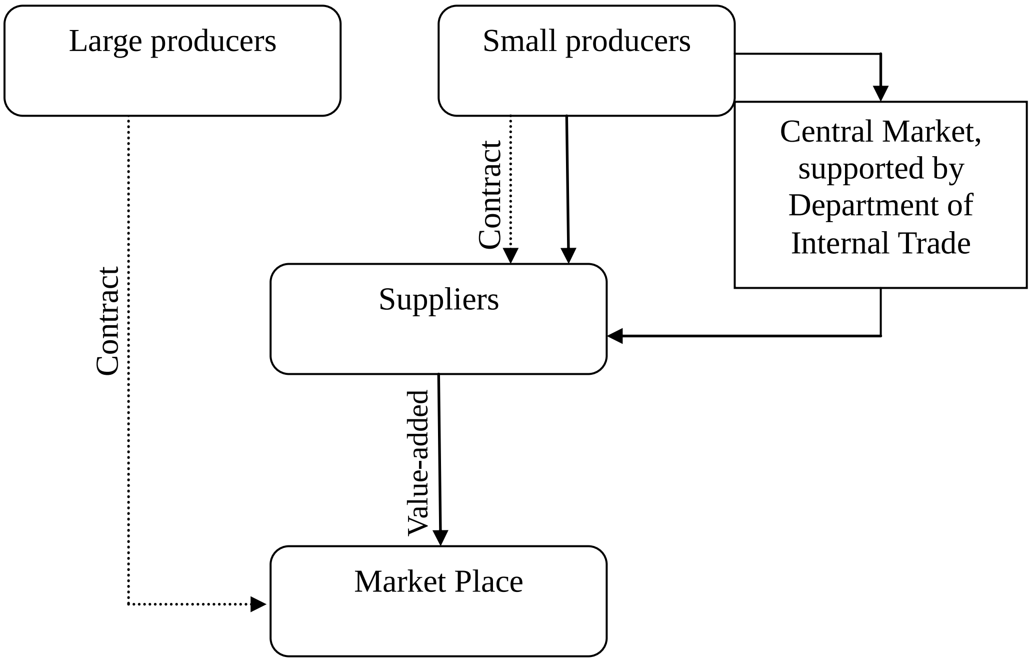
The old style system of food provision starts with farmers who sell food directly to the supplier. The suppliers add value to the food by processing and packaging. They then transfer the food products to the market place. The producers are disadvantaged in this system because the supplier pay low prices for the food. This system is therefore shifting to the second system of provision, with the help of the central market.

The central market is the place where agricultural food producers meet suppliers and sell agricultural produce directly to them – either by personal agreement or transparent bidding which is fair to both producer and supplier. The Department of Internal Trade (part of the Ministry of Commerce) supports central markets by providing a food storage area and accurate weighing scales (Department of Internal Trade 2010). After that, the supplier adds value to the food products and transfers them to the market place.

Another system of provision is contract farming which can be divided into farm-supplier contracts and farm-supermarket contracts. The basic idea of contract farming is that the modern food industry encompasses not only the farm, but also the entire chain of agriculture-related business, including seed supply, agrichemicals, food processing, machinery, storage, transport, distribution, marketing, advertising and retail sales. This allows for greater control over the quality of products. Contract farming is a key element of the Thai government's development plan, reflecting a strategy of private-led integrated agricultural development (Glover and Ghee 1992). The contract arrangements have increased notably since 1990. Several new crops are now being produced under contracts including jasmine rice, organic rice, prawns, new kinds of vegetables for the frozen industry and fruits etc. All regions in Thailand are becoming more experienced in contract arrangements, which are expected to benefit both farms and the agro-industrial sector (Wiboonpoongse, Sriboonchitta et al. 1998). For example, Charoen Pokphand Food (CPF) is the biggest food producer and supplier in Thailand. CPF is engaged in all parts of the supply chain and has contracted local farmers into the production processes with full quality control (CPF 2006). This involves the supplier inspecting the quality of food delivered by the contracted farmer before purchase.

In some cases, the supermarket who will only sell high quality food products makes a contract directly with large, certified food producers (such as Betagro and GFPT) holding Hazard Analysis Critical Control Point (HACCP), Good Manufacturing Practice (GMP), and International Organization for Standardization (ISO) certification to supply them directly with ood.

Figure 3-4 General System of Food Provision in Thailand



3.3.2 National Food Regulation and Policy Approaches

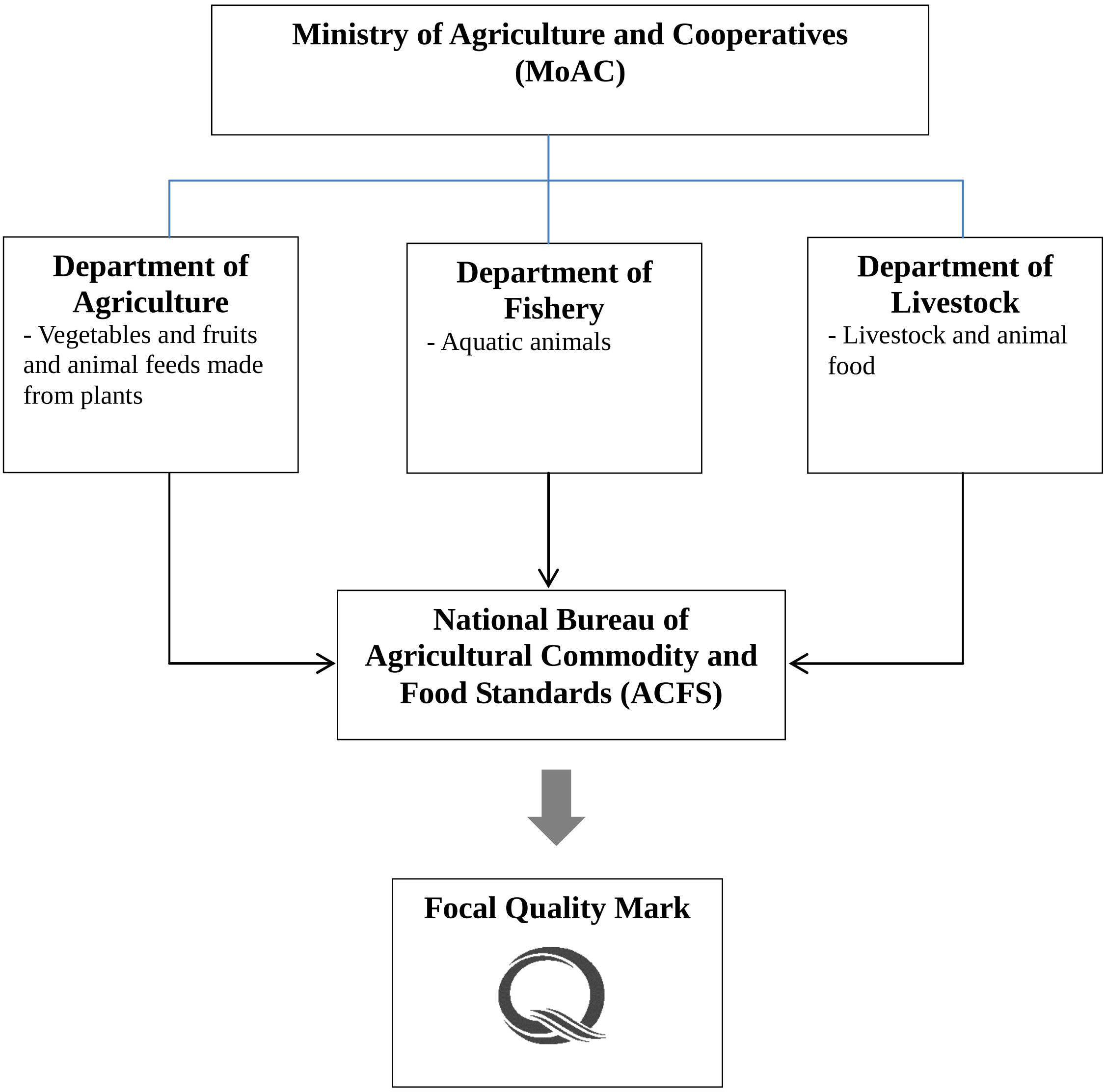
Domestic food quality and safety issues and increasing pressure by international trading partners to comply with international standards, led the Thai government to review and strengthen its approach to food safety. On 4 March 2003, the cabinet passed a 'Road Map of Food Safety', providing a framework for the control of food and agricultural products throughout the food chain (van der Valk and van der Roest 2009). To communicate this new approach to consumers, the Cabinet declared the year 2004 as 'Thailand Food Safety Year' (Srithamma, Vithayarungruangsri et al. 2005).

There are various kinds of fruit and vegetable safety standards in Thailand; including, hygienic, organic, and the Plant Quality Management System (PQMS). Each standard is unique in its cultivation method, inspection method, inspecting agency, and logo (Aprilia 2005). In general, two ministries are involved with the government's food safety policy. The first is the Ministry of Agriculture and Cooperatives (MoAC) which is responsible for agriculture and farming. The second is the Ministry of Public Health (MoPH) which is responsible for food processing, final products, and market places. This division allows us to divide the national regulations and policy approaches into two themes based on the authority of each ministry.

MoAC set up a pilot programme for safe food in 1983. This concentrated on fruit and vegetables in both fresh and processed forms. The original purpose was to reduce chemical use in fruit and vegetable cultivation by providing educational support to farmers (Aprilia and Kantamaturapoj 2004). In 1991, the program was improved and the maximum residue limits were set according to FAO and WHO standards, (the Codex Alimentarius). MoAC works with farmers to control farming patterns before food gets distributed to other actors in the supply chain. Its approach is to reward the farmers who comply with Good Agricultural Practices (GAP), by allowing them to sell their produce with the Q-mark (quality mark). Three departments of MoAC are responsible for controlling the quality of different types of agricultural products. For instance, the Department of Agriculture (DOA) is responsible for fruit and vegetables, the Department of Fisheries is responsible for aquatic animals, and the Department of Livestock is responsible for animal products (Figure 3-5). These three departments must submit the result of their quality monitoring to the National Bureau of Agricultural Commodity and Food Standards (ACFS) which then will issue the Q-mark to the producers who qualify (National Bureau of Agricultural Commodity and Food Standards 2010). As a result, Q-mark is the only safety logo in the market which consumers can rely on.

The Q-mark only covers food with accepted level of chemical residues but does not cover higher levels of sustainable food, such as organic. At the moment, the DOA is the only government agency certifying organic standards (for fruit and vegetables). Other organic products, such as seafood and meat, are not yet included in the government certification. The DOA issues the “Organic Thailand” logo to certified farm producers (Department of Agriculture Thailand 2010). The objective of having a distinct “Organic Thailand” standard is to give consumers confidence in the higher level of safety.

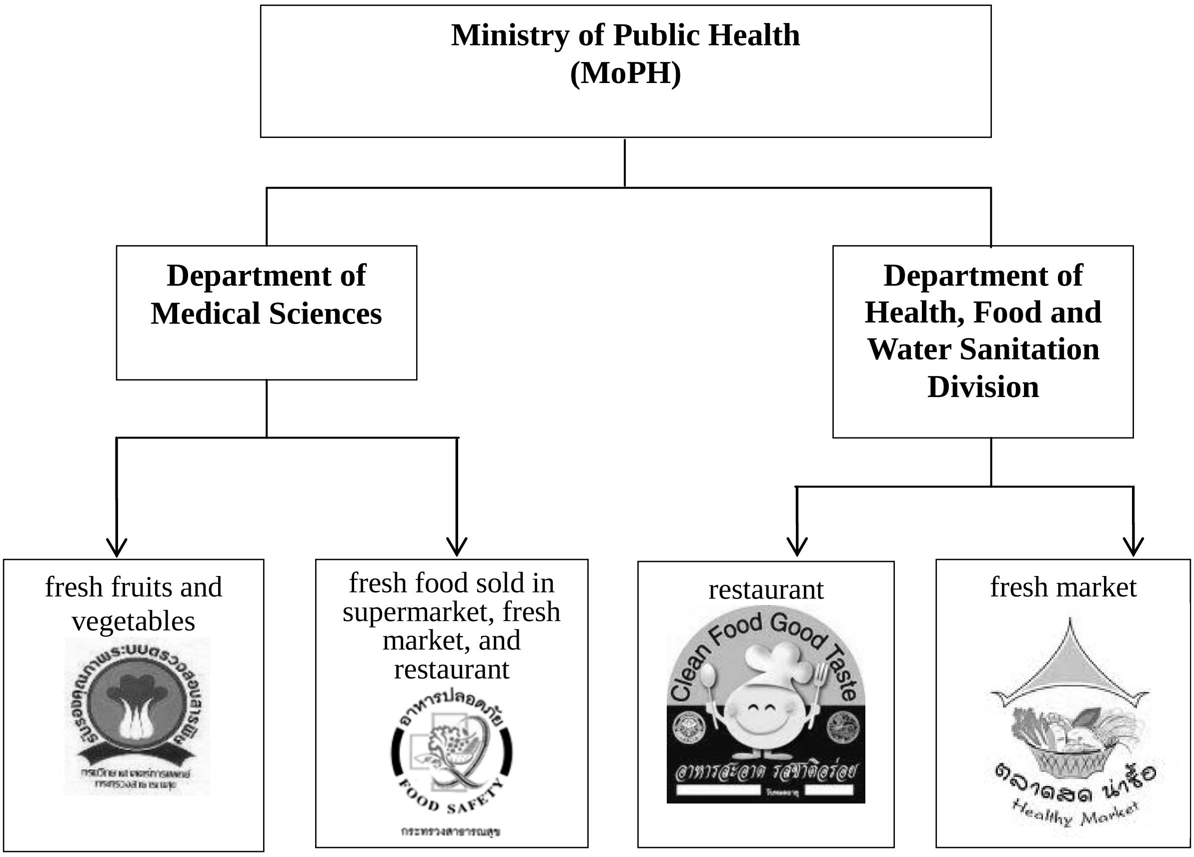
Figure 3-5 Organization Chart of MoAC Food Safety Regulation



The other ministry involved in food safety policy in Thailand is the MoPH. There are two departments of MoPH involved in controlling food safety. The first is the Department of Medical Sciences, responsible for certifying the safety of food by issuing quality signs to certified entrepreneurs. There are two main logos; one for fresh fruit and vegetables and the other for fresh food. The safe fresh fruit and vegetable logo ensures the consumer that the entrepreneur is able to systematically control the residues in fresh fruit and vegetable and meet the standards of the Department of Medical Sciences. Safety in fresh food is generally applied to food sold in supermarkets, fresh markets, and restaurants to ensure that it is free of residues from borax, pesticides, sodium hydrosulphite, salicylic acid, formalin, salbutamol, chloramphenicol, nitrofurans, and biological hazards. If all fresh food products sold in supermarket are free from the above chemical substances, the Department of Medical Sciences will give the certificate to the supermarket as well (Department of Medical Science 2010). The Department of Medical Sciences is not involved in the organic certification process.

The Food and Water Sanitation Division in the Department of Health of the MoPH also deals with national food policies and projects. The Division was established in 1990. In 2002, two projects were set up in accordance with food safety policy: 'Clean Food, Good Taste' and 'Healthy Market'. These two projects offer an incentive approach. MoPH provides a certificate to those restaurants and market places that pass the standard and can ensure safety to consumers. The target of the 'Clean Food, Good Taste' project is to cover every restaurant and food stall in the country. The objective is to ensure that restaurants and street stalls carry a healthy menu and to check for bacterial contamination of food. The inspections of restaurants and street stalls are randomly conducted. If they pass the criteria, they will get the 'Clean Food Good Taste' certificate. The 'Healthy Market' project aims to improve the quality of fresh markets by inspecting environmental and sanitary conditions at the market. Food products in the market are also inspected to check for chemical contamination by formalin, salicylic, borax, sodium hydrosulphite, insecticides, and salbutamol (Food and Water Sanitation Division 2008). Figure 3-6 shows the MoPH organization chart with regard to food safety regulation.

Figure 3-6 Organization Chart of MoPH Food Safety Regulation



3.3.3 Food Standards and Definitions

Several levels of sustainable food are defined in Thailand. At least three levels; “organic”, “hydroponic”, and “hygienic” products can generally be found in most supermarkets in Bangkok.

Table 3-2 Differentiation between Organic, Hydroponic, and Hygienic Products

Sustainable Level	Chemical Fertilizer	Insecticide Use	Herbicide Use	Hormone
Organic	not allowed	not allowed	not allowed	not allowed
Hydroponic	allowed	not allowed	not allowed	allowed
Hygienic	allowed	allowed (in acceptable level)	allowed (in acceptable level)	allowed

Source: Green Net, 2009

Organic products rely on ecosystem management rather than external agricultural inputs. Organic production is a system that excludes the use of synthetic inputs, such as synthetic fertilizers and pesticides, veterinary drugs, genetically modified seeds and breeds, preservatives, additives and irradiation (Table 3-2). Several certification bodies, both national and international organizations, offer organic certification services for producers in Thailand (Ellis, Panyakul et al. 2006). Because of the export trade, about half of organic farmlands in Thailand are certified by foreign companies while the remainder are certified by national organizations (Green Net/ Earth Net Foundation 2005). According to Green Net’s market survey in April 2009 (Green Net 2009) supported by thesis fieldwork, there are two main foreign and two national organic standards generally used in Bangkok. USDA is an American organic standard which is found in supermarkets that import organic food from USA. Bio Agricert is another international certification body with a local office in Thailand. There are also two national organic standards: one private, the other government owned. Organic Agriculture Certification Thailand (ACT) is the Thai-owned organic certification body that offers the IFOAM organic standard. Beside this private standard, the Department of Agriculture (DOA) also offers “Organic Thailand” as a government standard for organic food. Brief descriptions of and logo for these organic standards are shown in Figure 3-7.

The sustainability level of hydroponic products is less than the organic products. Pesticide free hydroponic systems exclude the use of insecticides and herbicides but allow the use of chemical fertilizers and hormones (Table 3-2). The least sustainable food is hygienic food, which allows the use of chemical fertilizers, insecticides, herbicides and hormones in agricultural processes. However, the pesticide residues in product needs to be at an acceptable level, which not harmful for human health (Table 3-2). In Thailand, the labels of hydroponic and hygienic food are similar in the sense that the chemical residues for them do not exceed the standard.

Figure 3-7 Organic Food Standards and Labels in Thailand

1. USDA Organic is the national organic standard of the USA. Since 1990, the National Organic Program of the United States Department of Agriculture has assured consumers that produce is produced to consistent national organic standards. USDA labeling requirements apply to raw, fresh products, and processed products that contain only organic agricultural ingredients (USDA 2008).

2. Bio Agricert is a Control and Certification Body first established in Italy in 1984. In 1996, it became the first IFOAM accredited organization for the certification of plant and animal products, processed products and from natural harvesting (Ellis, Panyakul et al. 2006). Bio Agricert has a local office in Bangkok and offers accreditation service to rice farms in the North East (Bioagricert-Thai 2010).

3. Organic Agriculture Certification Thailand (ACT) was established in 1995 by Thai NGOs and received IFOAM accreditation in 2002. The standards cover raw and processed food (Organic Agriculture Certification Thailand 2009). ACT standards are recognized as equivalent to IFOAM's Basic Standards (Ellis, Panyakul et al. 2006).

4. National Organic Thailand Standard is an organic national certification body. Established in February 2002 by the Department of Agriculture (DOA) "Organic Thailand" offers certification services for Thai producers. The main product certified by DOA is rice, followed by vegetables, fruits and tea (Department of Agriculture Thailand 2010).

Figure 3-8 Hygienic Food Standards and Labels in Thailand

1. Quality Mark (Q Mark) is a national food safety standard initiated by ACFS in 2003. Q mark aims to supersede the overlapping of food standard from various departments of the MoAC (such as those for livestock, fisheries and agriculture. The standard is applied to all processed and packaged agricultural food by randomly sampling the end-products (National Bureau of Agricultural Commodity and Food Standards 2003; Department of Fishery 2010).

2. Hygienic Vegetable and Fruit was a standard of the Department of Agriculture. This label was replaced by the Q Mark (National Bureau of Agricultural Commodity and Food Standards 2003). Many suppliers still use this label on their packages.

3. Chemical Safe is issued by Department of Medical Science, MoPH and applied to fresh vegetables and fruit. This label certifies that food is safe from toxic residues (Department of Medical Science 2010).

4. Carrefour Quality Line was developed in 1990 by Carrefour France. The label is stamped on fresh food to ensure quality and safety. The Carrefour Quality Line also supports the environment, the farmer, the economy and the customer. Every product can be traced to its source by a registration number stamped on the bottom of the item. This innovative scheme is now implemented in more than 22 countries (Carrefour Thailand 2008).

5. Big C Farm Fresh Hygienic label guarantees the safety and freshness of vegetables, fruits, seafood and meat sold in Big C. According to the Big C standard, the manufacturing process must not generate pollution and not contain any residues. As well as the packaging, delivery and the store display must pass the standards in the guideline in order to provide high quality, fresh, clean, and safe products (Big C 2010).

According to Green Net's 2009 market survey (Green Net 2009) together with thesis fieldwork, there are also three government hygienic food standards that can be widely found in Bangkok. The first standard is the "Quality Mark" of the National Bureau of Agricultural Commodity and Food Standards (ACFS), the second is "Hygienic Vegetable and Fruit" of the DOA, and the last is "Chemical Safe" from the Department of Medical Science (Figure 3-8). Some supermarkets, such as TOPs, only procure hygienic food from suppliers who are certified by these government schemes (TOPs 2008). There are other hygienic labels, from supermarkets such as Carrefour and Big C which are based on self-assessed quality control standards (Figure 3-8).

3.3.4 Driving Forces for More Sustainable Food Provision in Urban Thailand

Sustainable food provision in urban Thailand has been driven by many factors of which three are discussed in this section. The first driving force is export orientation. Sustainable food production, such as organic food, was initially developed in Thailand for export (Ellis, Panyakul et al. 2006) because of high demand from Western markets. This led producers to rely on foreign certification services from importing countries (Panyakul 2003). Certified organic food products sold in supermarkets in urban Thailand are therefore very expensive. The main target group of consumers is foreign people who care about third party certification and have the necessary purchasing power to buy more expensive food.

The second driving force comes from the commitments of farmers and NGOs who want to promote small-scale agriculture (Vandergeest 2009). Sustainable food production is not new for Thailand, Thai farmers have practiced traditional sustainable farming for hundreds of years. Such practices have been developed and enriched through farmers' knowledge of local agro-ecology and environmentally sustainable ways of farming (Panyakul 2003). Activists and NGOs in Thailand have used the term alternative agriculture since the mid-1980s (Vandergeest 2009). The Alternative Agriculture Network (AAN) was established in 1984 as a national network and provides the main discussion forum for experience sharing and policy advocacy for sustainable agriculture, including organic farming (Panyakul 2003). These small scale farmers are the main suppliers of specialized shops in urban Thailand. Most of the sustainable foods produced by small farmers are sold under their own brand, without any international certification. The main cost of production is due to the additional workforce required, rather than to certification. Consequently, the price of sustainable food is not too high.

The third and most important driving force in urban Thailand is the health benefits motive (Lockie, Lyons et al. 2002; Yiridoe, Bonti-Ankomah et al. 2005; Roitner-Schobesberger 2006). As Lockie et al. (2002) point out, health is one aspect that many consumers take into account when buying food. In urban Thailand, a study by Roitner-Schobesberger (2006) confirms that these health aspects are closely associated with the residues from synthetic chemicals used in agriculture which have led to an increasing level of health concerns. Nelson (1991) also reported that consumers in Bangkok have a negative perception of pesticide residues in food (Nelson 1991). This indicates that there is a market potential for sustainable food, which has already been recognized by supermarkets in Thailand (Roitner-Schobesberger 2006). Moreover, the risk from pesticide residues in vegetables is well known to consumers because of recurring coverage in the mass-media (Kramol, Thong-ngam et al. 2005). Highly publicized food safety incidents have led to changes in food purchasing behaviour (Buzby 2001). Since organic products are produced without the use of synthetic pesticides, some consumers are turning to these to allay their food safety concerns (Roitner-Schobesberger 2006). These are mostly middle class consumers in urban Thailand who have the purchasing power and are willing to pay premium prices for safer food.

3.4 Food Retailers

This section provides more details about food retailers in urban Thailand, focusing on traditional, modern, and alternative sections.

3.4.1 Overview of Food Distribution Channels in Urban Thailand

This section aims to clarify the general food distribution channels currently present in the urban areas of Thailand, especially in Bangkok. It will present the different ways in which food reaches consumers as a basis for putting into perspective the channels providing sustainable food in urban Thailand.

Food distribution in Bangkok can be divided into 2 broad categories; the traditional and the modern food retailers (Blois, Mandhachitara et al. 2001). Traditional food retailers encompass small shops and 'wet markets' (Reardon et. al, 2006); this section has been mostly in the hands of immigrant Chinese merchants who run small stores with a similar range of products (Yasmeen 2000; Blois, Mandhachitara et al. 2001). The modern food retailers are the wide array of convenience stores that can mostly be found in large shopping malls (Blois, Mandhachitara et al. 2001) and other modern retail formats, such as hypermarkets, supermarkets, discount stores and chain convenience stores (Reardon and Hopkins 2006). The transition from traditional to modern market systems has occurred over several decades. In early 1960s, the traditional retail sector still dominated the urban food supply (Smith and Mandhachitara 2000). As early as 1964, the Japanese department store Daimaru opened a food section, introducing the first modern form of food retailing in Thailand (Tokrisna 2005). According to Reardon and Hopkins (2006), the supermarket revolution in developing countries only 'took off' in the early to mid-1990s (Reardon and Hopkins 2006). In Thailand, the number of westernized retail formats has grown radically since 1997, due to the liberalization policy allowing foreign direct investment (Smith and Mandhachitara 2000; Shannon and Mandhachitara 2008).

3.4.2 Traditional Food Retailers in Urban Thailand

The traditional food retailing sector mainly consists of fresh markets (also known as "wet market"), grocery stores ("mom and pop shops[2]"), row house restaurants, and street food vendors. Fresh markets still retain a key function for many ordinary people in Bangkok. Their food is cheaper than in supermarkets and it is possible to bargain on the price. Most foods in the traditional markets are fresh and conventional and are sold without packaging or labelling. One reason why these markets persist and remain focal points for activity in Bangkok's neighbourhoods is the importance attached to the established patterns of buying food within households. Lower income groups in particular need easy and regular access to food, and the relative ease in gaining access to petty trading occupations through these markets helps to preserve them and support older forms of public life (Askew 2002).

[2] Small, family-owned convenience stores accommodated in row houses

Bangkok is different from the rest of Thailand in terms of retail transformation. While traditional retail still plays important role in other provinces, the number of traditional markets in Bangkok has declined. Traditional markets still accounted for over 80 per cent of the food retail trade in the country as a whole in 2000 (Schaffner, Bokal et al. 2005). The number of fresh markets in Bangkok has slightly increased from 195 in 1999 to 210 in 2006, but they only account for 8 per cent of the market share (Shannon and Mandhachitara 2008). Nevertheless between 2006 and 2008, the number of fresh markets in Bangkok dropped significantly, to 153 (Food & Water Sanitation Division 2009). The latest data from the Food & Water Sanitation Division reported that the number of fresh markets in Bangkok in 2010 had further declined to 145 (Food & Water Sanitation Division 2009).

The other traditional food sector in Bangkok is the grocery store. Tokrisna (2005) reported that Thai households traditionally bought fresh food daily from grocery stores (Tokrisna 2005). A Thai grocery store takes the form of a shop-house and is a family business; the ground floor is used as a store to sell groceries and food products while the shop owners and their family occupy the upper floors (Feeny, Vongpatanasin et al. 1996). AC Neilsen (1999) reported that Thailand had 200,500 grocery stores in 1999, which accounted for 18 per cent of the market share. By 2006, the number of grocery stores in Bangkok has reduced to 125,000 with just 9 per cent of the market share (Tokrisna 2005; Shannon and Mandhachitara 2008).

Thailand has experienced a rise in the nuclear family and has also seen a rise in the number of single people, particularly in the cities (Yasmeen 2000). As there is an increase in the number of women working outside households, the preparation of meals is taken care of either by servants, by subscription to meal-catering services, or by buying ready-made foods each day on the way home (Komin 1989). Bangkok therefore has many food-shops which act as a life-support system for many urbanites (Yasmeen 2000).

Street food vendors are another important traditional food distribution channel in Bangkok. Street food hawkers cater to middle and low-income consumers (Yasmeen 2000). They can be found along the streets, not only in tourist areas but also in any community in Bangkok and all other provinces (Kongchuntuk 2002). One reason is that Thai increasingly do not cook at home anymore. Eating out allows urbanites to save time that would be spent on shopping, preparing, cooking, and washing.

3.4.3 Modern Food Retailers in Urban Thailand

In the modern food retail sector in Bangkok, there are four major retail formats; 1) department store with a food section, for relatively high income groups, 2) supermarkets for convenient food shopping, 3) hypermarkets, focusing on cheaper prices, and 4) convenience stores for ready-to-eat meals and beverages (Tokrisna 2005). Askew (2002) studied the history of the food market place in Bangkok. He explained that the increase in the white collar work force, with expanding incomes, has encouraged changes in traditional patterns of consumption while changes in urban lifestyles have encouraged the trend towards ‘convenience’ or ‘one stop’ shopping. The first modern department store, Central Wangburawa, opened in 1956 (Feeny, Vongpatanasin et al. 1996) but there was no grocery section inside the store. The first supermarket in Bangkok was opened in 1964 inside the Japanese retailing store Daimaru (Feeny, Vongpatanasin et al. 1996; Tokrisna 2005). From the late 1970s onwards shopping complexes comprising department stores, supermarkets, offices, and restaurants expanded in number. In 1990, there were only 50 modern retailers in Bangkok (Shannon and Mandhachitara 2008). Since the late 1990s, the number of supermarkets and hypermarkets has rapidly expanded in Southeast Asian countries (Reardon, Timmer et al. 2003). Before 1997, the major retail chains in Thailand were mainly owned by domestic companies. For instance, Central had ownership of TOPs and Big C and a share of Carrefour while the Charoen Pokapand Group (CP) had ownership of Lotus, Makro and Seven-Eleven (Vandergeest 2006).

However the economic crisis of 1997 led these domestic companies to sell ownership to foreign companies, mostly European (Commonwealth of Australia, 2002). Central sold TOPs to Royal Ahold (the Netherlands), Carrefour shares to Carrefour (France) and most of Big C to the Casino Group (France). CP sold Siam Makro back to Makro (the Netherlands) and most of Lotus to Tesco (UK). At that time, these European retailers rapidly expanded new stores in Bangkok and major cities in key provinces (Smith and Mandhachitara 2000) (Vandergeest 2006). Table 3.3 shows the year that these companies entered Thailand and the number of retail outlets they had in 1997.

Table 3-3 Year of Entering Thailand and Number of Retail Outlets in 1997

Supermarket	Year entered Thailand	Number of stores in Thailand (1997)
Makro	1989	15
Big C	1993	19
Tesco Lotus	1994	12
Carrefour	1996	6

Source: Adapted from Shannon (2008)

In 2002 the hypermarkets had 44.1 per centof the market share of the modern retailers department stores had 35.3 per cent convenience stores 12.4 per cent and supermarkets 8.2 per cent (Tokrisna 2005). It is interesting to note that convenience stores can be found at every bus stop and petrol station in Bangkok. The increasing number of convenience stores has been influenced by a new emerging lifestyle (Feeny, Vongpatanasin et al. 1996). 7-Eleven is now the biggest convenience chain with 3,912 branches in 2007 and is the fourth largest 7-Eleven chain in the world after Japan, USA, and Taiwan (CP 2007). Some supermarkets have also opened convenience stores, such as Lotus Express and TOPs Daily.

In 2004, Royal Ahold withdrew from business in Asia (Shannon and Mandhachitara 2008) and Central purchased back the TOPs network. Since that time, many Thai-owned supermarkets have been popping up again. Major Thai-owned supermarkets include TOPs, Foodland, Villa Market, and Home Fresh Mart (Wiboonpongse and Sriboonchitta 2004).

Supermarkets and hypermarkets are one of important food retailers for people in big cities. Their number has dramatically increased. In 2004, modern food retailers comprised 25 per cent of food retail sales, primarily in Bangkok (Vandergeest 2006). Canada’s Agrifood Trade Service (2005) reported that Thailand is seeing a rapid and continuing turn to food shopping in corporate retail chains (Vandergeest 2006). In 2006, there were 174 hypermarkets in Bangkok (Shannon and Mandhachitara 2008). The number of supermarket stores in Bangkok has continued to rapidly increase: to 368 in 2008 and 545 in 2010. Table 3-4 shows number of major supermarkets in Bangkok from 1997 to 2010. Most supermarket stores are located in Bangkok as shown in Table 3-5.

Table 3-4 Number of Major Supermarkets in Bangkok from 1997 – 2010

Supermarket	Slogan	Number of Stores*					
		1997	2002	2004	2007	2008	2010
Tesco Lotus	Roll Back Product, Cheaper than Before	12	43	48	96	202	343
TOPs	Fresh food, Fresh ideas, Fresh thinking	27	52	48	92	62	88
Big C	Check Price (Guarantee the same or lower price than the competitor within 7 km distance)	19	33	37	54	26	26
Carrefour	Everything you like is in Carrefour	6	17	19	27	23	28
Villa Market	What's on your list today? You'll find it at Villa Market!	8	8	8	11	12	15
Foodland	Think of Food, Think of Foodland	7	8	8	9	10	10
Jusco (Max-valu)	Happy Easily near your House	8	14	10	7	10	10
Makro	The Leader of Good and Cheap Products	15	21	23	41	8	9
Home Fresh Mart**	Home Fresh Mart QC, Food Quality and Care	7	8	8	9	8	8
Gourmet Market**	Leading Chain of Upscale Market	Not yet open	Not yet open	1	2	2	3
Golden Place	Fair for Producer and Consumer	Not yet open	4	4	4	4	5
TOTAL		**109**	**208**	**214**	**352**	**367**	**545**

Source: Adapted from Shannon (2009), Tesco Lotus, 2008/ 2010, TOPs, 2008/ 2010, Big C, 2008/ 2010, Carrefour, 2008/ 2010, Villa Market, 2008/ 2010, Foodland, 2008/ 2010, Jusco, 2008/ 2010, Makro, 2008/ 2010, The Mall Group, 2008/ 2010, Golden Place, 2008/ 2010.

Note: * Every store size is included

** Operated by the same company

Table 3-5 Number of Supermarket Stores in Bangkok Metropolitan Area and Other Provinces in 2008 and 2010

Supermarket	Number of Stores			
	2008		2010	
	Bangkok Metropolitan Area	Other Provinces	Bangkok Metropolitan Area	Other Provinces
Tesco Lotus	202	355	343	106
TOPs	62	44	88	37
Big C	26	40	26	42
Carrefour	23	7	28	12
Villa Market	12	2	15	3
Foodland	10	1	10	1
Jusco (Max-valu)	10	0	10	0
Makro	8	21	9	38
Home Fresh Mart	8	1	8	1
Gourmet Market	2	0	3	0
Golden Place	4	1	5	1
TOTAL	**367**	**472**	**545**	**241**

Source: Tesco Lotus, 2008/ 2010, TOPs, 2008/ 2010, Big C, 2008/ 2010, Carrefour, 2008/ 2010, Villa Market, 2008/ 2010, Foodland, 2008/ 2010, Jusco, 2008/ 2010, Makro, 2008/ 2010, The Mall Group, 2008/ 2010, Golden Place, 2008/ 2010.

Note: * Every size of store is included.

The majority of Thailand’s supermarkets are located in Bangkok which has a more diverse range of food retailers than other provinces. Food and non-food items are usually located in separate areas of the store and fresh and packaged food are also separated. Packed foods are categorized and stored to make it easy to find them. Fresh food such as meat, vegetables and fruits are cut and packed. In some supermarkets, such as Tesco Lotus, Big C and Carrefour, consumers can select a piece of meat in a box and weigh it. Most supermarkets offer a free cooking service for fish and ready-to eat foods are available in every supermarket.

The other type of modern retail is the specialized shop. Bangkok has more consumers that are interested in eating specific kinds of food that fit their lifestyle (for example for specific illnesses or allergies). Some specialized shops are popping up in Bangkok in response to increasing awareness of food safety. Specialized small shops, such as health food shops or shops specializing in fair trade or environmentally sound products, comprise a different kind of sales channel. These shops tend to follow the model of direct sales from farmhouses which were the initial outlets for organic products. Health food shops often promote a particular ideology and certain values about consumption and the social or natural environment (Torjusen, Sangstad et al. 2004). Specialized shops in Bangkok are generally located in various areas of Bangkok. Most of them are located in the houses of the owners, who did not purchase or rent a new place to establish the shops. Normally, shop personnel in these specialized shops are expected to be able to give information about the products to the customers. Most products in specialized shops are certified by national organic standard.

Some consumers prefer to buy food that they can know the precise origin of. The positive features of direct distribution are usually credited to face-to-face relationships between consumers and the producer, and they also serve to reduce the distance between consumers and food products (Torjusen, Sangstad et al. 2004). In Bangkok, the Community Support Agriculture (CSA) Thailand has established a system to deliver vegetables from farms outside Bangkok to the consumers in the city. In the countryside, farmers are working hard but not breaking even. Food consumers get cheap food, but worry about the safety and quality of the food they buy. CSA tries to address both problems by directly linking farmers with consumers (Fair Earth Farm 2010). Members of the system can pick up a package of vegetables once a week from a drop off point near their house. CSA also arranges activities to build the relationship between farmers and consumers, such as weekend excursions to the farms. This allows the consumers to see the agricultural processes and to feel confident about the safety of the product.

The specialized shops originate from the traditional food sector like Community Support Agriculture which started delivering organic food in 2000 (Thai Green Market 2010). In 2001, one team of CSA Thailand opened the Suan Nguen Mee Ma shop, the first specialized shop in Bangkok. The original objective was to sell and distribute indigenous and village products, to contribute to the development of associations between producers and consumers, including fair trade, and to explore new consumers' markets for indigenous and village products, craftsmanship, while honouring local knowledge (Suan Spirit 2010).

According to Apichit (2008), there were just six specialized shops in Bangkok in 2008[3] (Apichit 2008). By 2010, the number of specialized shops in Bangkok had increased to 25 (Thai Green Market 2010). Table 3-6 shows a list of specialized shops in Bangkok in 2010. Besides the specialized shops, there are other forms of distribution channels selling sustainable food. These distribution channels include limited companies, the vegetarian organizations, and restaurants. Although they sell sustainable food, the business scale and the management methods of these retails are different from specialized shops.

The group of specialized shops in Bangkok has worked together officially under the support of the Ministry of Health since 2008 (Thai Green Market 2010). The Green Market Network includes green business producers, community producers, as well as consumers concerned about health and environmental issues. The activities of the Green Market Network include monthly member meetings, opening public discussions about sustainability issues and publishing a green magazine. The Green Market Network attempts to build a group of green business operators, to support them, and to do joint public relations. Since specialized shops normally buy food products directly from suppliers and only have limited business capital, they only carry a limited stock of food products with a short expiry period. The members of the Green Market Network attempt to overcome this by sharing their sourcing of sustainable products and exchanging the sustainable products that they have in their shops.

The Green Market Network also is also making efforts to find new distribution channels. Since August 2008, it has been running a “Thursday Market” at Regent House Building, in the business area of Bangkok. Sustainable food producers and providers bring sustainable products for sale between 10.00 and 14.00 hr. Most of the customers are staff working in the building. The response to the Thursday Market became a lot better after a television broadcast. In 2010, additional open markets were set up at five hospitals in Bangkok with the support of the Bangkok Metropolitan Administration (Thai Green Market 2010). The reason for setting up these markets in the hospitals was that patients are prime consumers in terms of sustainable food. In addition, the Green Market Network also runs a “Green Fair Event” every

[3] Only specialized retail shops are included in this figure, which excludes producers and wholesale shops.

year to sell sustainable products, to promote network activities, to provide knowledge about green production and green business, and to open a public forum on sustainability issues.

Table 3-6 List of Specialized Shops in Bangkok (2010)

Specialized Shop
1. Pao Pak
2. Aden
3. Thai Sabai
4. Health Me
5. Ban Navilit
6. Puen Sukkaphab
7. Tam Na
8. Dee Jai Organic
9. Song Te
10. Green Line (Sabai Jai Shop)
11. Ban Tanyapuech
12. Pue Khun
13. Suwannaphum
14. Kad San
15. Suan Nguen Mee Ma (Suan-Spirit)
16. Organic Food Home
17. Green-X
18. Urban Tree
19. D-Health
20. Doy ChaPao
21. Ton Farm Pak
22. Ban Kad San
23. Healthy Home
24. Healthy Me
25. Houng Yai
Limited Company
1. Lemon Farm (9 branches in Bangkok)
2. Doi Kham (2 shops and 6 representatives in Bangkok)
Buddhism Vegetarian Organization
1. Dae Cheevit
2. Palang Boon
3. Phum Boon
Restaurants
1. Kaw Klong
2. Sukkhaphab Thai
3. Anothai
4. Ban Suan Phai Sukkaphab

Remark: Producers of sustainable food who do not have a shop and non-food shops are not included. **Source:** Thai Green Market, 2010

As the Green Market Network has been successful in expanding from one market in 2008 to 6 in 2010, more providers become interested in selling their food at these markets. The Green Market Network therefore needs to screen the providers to ensure that all the food sold in the markets is really sustainable. The Green Market Network divides the level of sustainability into 3 groups: 1) certified organic food, 2) non-certified organic food, and 3) chemically safe food. Certified organic food providers have no problem in participating in the markets but non-certified food providers need to prove that their food products are truly safe for health and the environment. The Green Market Network has realized that non-certified producers are not able to apply for official certification because they do not have enough money. It has therefore set up a "participatory accreditation system" to screen providers before allowing them to sell their food on the markets. The participatory accreditation system includes representatives from all stakeholders including producers, consumers, NGOs and government agencies. The criteria for accreditation are practicable for producers to meet and are accepted by the consumers (Thai Green Market 2010).

It is not easy to classify specialized shops as either "traditional" or "modern" retailers. Specialized shop can be seen as traditional retailers because they have a small customer base, no official standard certification and personal relationships between the retailer and consumer (Goldman 1974). However, this study sees specialized shop as part of the modern category since they mainly provide food for urban consumers with a specific lifestyle and concerns. Goldman (1974) explained the characteristic of the modern system that it should have a traceability system and behave competitively. Although most specialized shops in Bangkok do not provide an official certificate of sustainability, they have their own traceability system to ensure the safety of food. In addition, the specialized shops in Bangkok act competitively in seeking new ways to get new customers and expand their market. The specialized shop has evolved and advanced more than the traditional system and is therefore categorized as part of the modern system in this study.

3.5 Consumers

This section discusses the shopping and eating lifestyles of consumers in urban Thailand. In order to understand consumer lifestyles in urban Thailand, the general eating habits of Thai people are also clarified here

3.5.1 Consumers' Trust and Concerns

This section investigates the concerns and characteristic of typical sustainable food consumers worldwide and more specifically in urban Thailand. Grunert and Juhl (1995) argue that purchasing specific products is the result of the influence of five sets of values; 1) belief, 2) behaviour, 3) specific situation, 4) selection guidelines, and 5) order by relative importance. Many consumers consider ethical, environmental, social, and health aspects when choosing food (Torjusen, Lieblein et al. 2001). Pedersen (2002) also notes that consumers can derive ethical and moral satisfaction from purchasing products to increase their physical well-being (Pedersen 2002). Gil et al. (2000) indicates that lifestyle and attitude towards environmental issues are important factors explaining the consumption of organic products

The common characteristics of typical sustainable food consumers have been identified in many studies. These studies have generally concluded that the core of sustainable food consumers are woman (Nelson 1991; Richter, Schmid et al. 2000; Lockie, Lyons et al. 2002), high income (Torjusen, Lieblein et al. 2001; Lockie, Lyons et al. 2002; Wier and Andersen 2003; Roitner-Schobesberger 2006), high education (Lockie, Lyons et al. 2002; Wier and Andersen 2003; Roitner-Schobesberger, Darnhofer et al. 2008), and households with children (Wier and Andersen 2003).

The general awareness of consumers in Bangkok has been rapidly increasing due to growing concerns about health risk and unhealthy habits. As a result, the market for safe foods has expanded. Aprilia (2005) and Roitner Schobesberger's study (2006) found that the main reason why consumers in Bangkok buy organic products was for health and safety and to avoid high pesticide residues. The interviews and focus group discussions with providers undertaken in this research also discovered that ill people, especially people with cancer, are the biggest consumers of sustainable food. They believe that long-term consumption of conventional foods leads to an accumulation of toxins in the body. Nelson's study (1991) found that the groups of actual and potential purchasers of pesticide-free vegetables were largely well-educated females with middle or higher incomes. This result was consistent with Roitner Schobesberger et al. (2008) who found that consumers of organic vegetables in Bangkok tend to be older, hold an academic degree and have above average incomes. A study in Northern Thailand also found that willingness to pay for 'safe' vegetables increases with age and income (Posri, Shankar et al. 2006). Well-educated consumers tend to consume more sustainable food because they have more knowledge about food labelling and standards. They know the difference between the levels of safety through the label and storylines. This information means that they are willing to buy even though sustainable food is more expensive than conventional food. With regard to gender, literature shows different findings. Nelson (1991), Lockie et al. (2002), and Richter et al. (2000) found that female consumers are the main group buying sustainable food. By contrast, Davies et. al (1995) found that the difference in purchasing between male and female consumers in UK was not significant (at the 5 per cent level). Roitner Schobesberger et. al (2008) found that men in Bangkok are more likely to purchase organic foods than women. Thus the effect of gender is probably interlinked with other factors such as education level and the presence of children in family. The results of the study by Davies et al (1995) showed that households with children are willing to pay more for organic food. Concerning income, most of the literature agrees that high income consumers seem more willing to pay for sustainable food (Nelson 1991; Torjusen, Lieblein et al. 2001; Lockie, Lyons et al. 2002; Wier and Andersen 2003; Roitner-Schobesberger 2006; Roitner-Schobesberger, Darnhofer et al. 2008). This is understandable because the price of sustainable food is higher than conventional food. and only consumers with high purchasing power can afford to buy it.

3.5.2 Consumers Lifestyle

Various studies show the linkage between lifestyle and purchasing behaviour. Searching for specific food can be part of a particular lifestyle (Oosterveer, Guivant et al. 2007). According to Tokrisna (2005), the working age (20-40 years) with high purchasing power is the largest group in Bangkok. Their preference for the modern retail sector has been one of the important factors for the development of this sector. Working age consumers tended to live in suburban Bangkok, due to lower accommodation costs. Consequently, a family car is needed, due to inadequate mass transportation connecting between centre and suburban areas. This encourages these consumers to go to markets where there is available parking space (or that are served by public transports; BTS sky train and MRT subway).

Married woman now often continue to work after their marriage. Family size is becoming smaller, and the nuclear family becomes dominant. Working husbands and wives both take care of their family shopping. Limited time leads to buying once a week in larger quantities. The modern trade sector, hypermarkets and supermarkets have responded by opening branches in suburban Bangkok and proving ample parking places. The economic crisis and lower disposable incomes have led to the development of hypermarkets as an lower priced alternative. The modern retail food sector accommodates consumer preferences in terms of better service, lower prices, appropriate locations, and abundant parking space (Tokrisna 2005).

According to Kachondham et al. (1992), food expenditure in Bangkok was mostly eat out and take-home food. This early study is consistent with Kosulwat (2002) who stated that homemade meals were rarely seen in Bangkok and are being replaced by ready-to-cook and ready-to-eat foods bought at local markets, food stalls, supermarkets, and big department stores. Likewise a study by Tokirsna (2005), found that consumers spent about one-fifth of their food bills either on dining out or buying ready to cook food for home meals. The recent study by the ABAC Poll Research Centre in 2009 which studied eating habits among 1,325 respondents in Bangkok found that 70 per cent of the respondents eat food from street stalls rather than from food courts and restaurants. Most of the respondents with a (bachelor) degree eat food from row house restaurants (76.7%), followed by street stalls (66.7%), food courts (60%), and restaurants (43.3%). Although only 5.8 per cent of the respondents feels confident about the safety of food at the street stalls, the reasons for always eating food from street stalls include busy lifestyle (66%), cheapness (51.2%), short distance to the street stall (46.3%), convenience (45.9%), and friendliness of the street stall owners (40.5%).

The typical Thai food includes rice and side dishes. Aprilia (2005) conducted a survey with 60 respondents in Bangkok. This survey found that Thais mostly eat rice served with other food, for example, meat, vegetables, eggs, etc. in their three-times-a day meals. Rice is the most popular source of carbohydrates, above bread, noodles and potatoes.

Aprilia’s survey (2005) found that most respondents eat typical Thai food for breakfast, while some respondents eat western food items such as cereal and milk, bread and coffee, sandwiches and juice. Most interviewees ate their breakfast at home. For lunch, most respondents preferred typical Thai food i.e. rice with chicken, meat, vegetables, seafood, or noodles with meat. The western influence somewhat penetrates the selection of food, especially for respondents who are vegetarians or more health concerned and prefer to eat healthier alternatives such as salads, sandwiches, and juice. Most respondents eat lunch in the office, at street stalls, or in restaurants. Dinner is the main meal eaten during the day. Most respondents would include rice in their dinner, in preference over other sources of carbohydrates. Usually, Thai people combine rice with other dishes and have dinner at home, in restaurants, or at street stalls.

3.6 Conclusion

The dynamic change of food shopping from traditional market to modern retail in Thailand is similar to other South East Asian countries and other parts of the world. Because of modern lifestyles, such as women working out and less time available for cooking, the number of modern retail stores has rapidly increased. This is consistent with the findings of Kinsey et al (1996) that limited time to prepare traditional meals increases the demand for convenience foods such as fast food, drive-through, and take home food.

Bangkok is the focus area of this study. It is not only the capital of Thailand but also the heart of economics and politics in the country. The governmental organizations and many private companies are located in Bangkok. A large proportion of the national population works and lives in Bangkok. As a result, the city is continuously urbanizing. As in other rapidly growing cities, traffic is a major problem in Bangkok. People in Bangkok spend many hours on the road due to traffic jams. At the same time, busy lives and tensions increase the number of ill people in Bangkok and more and more Bangkok people are starting to pay attention to health issues. Health concerns are one important driving force for the emergence of sustainable food consumption, especially for those who want to avoid residual chemical substances in their food. The other driving force is the commitment of small scale farmers who supply, mainly non-certified, sustainable food to specialized shops in Bangkok.

Food providers in urban Thailand can be divided into three major sections. The first section are the traditional providers such as fresh markets, mom and pop shops, row house food restaurants, and street vendors. Traditional retailers focus on providing an easy way of providing food at a low price. Therefore, no sustainable food is found in this section. The second food section is the modern retail sector such as supermarkets, hypermarkets, and convenience stores. The presence of these modern retailers is high in the inner city of Bangkok to facilitate easy access. Most food sold in supermarkets is standardized and different levels of certifications from national and international origin are offered to the consumers. Some modern retailers sell sustainable food alongside conventional food. The last section are the alternative retailers, such as the specialized and health shops, which cater for a specific group of consumers. The alternative section has increased in the past decade, due to health concerns of urban people. They sell both certified and non-certified sustainable foods. The regular consumers of these shops place much trust in the providers and the food sold in the shops.

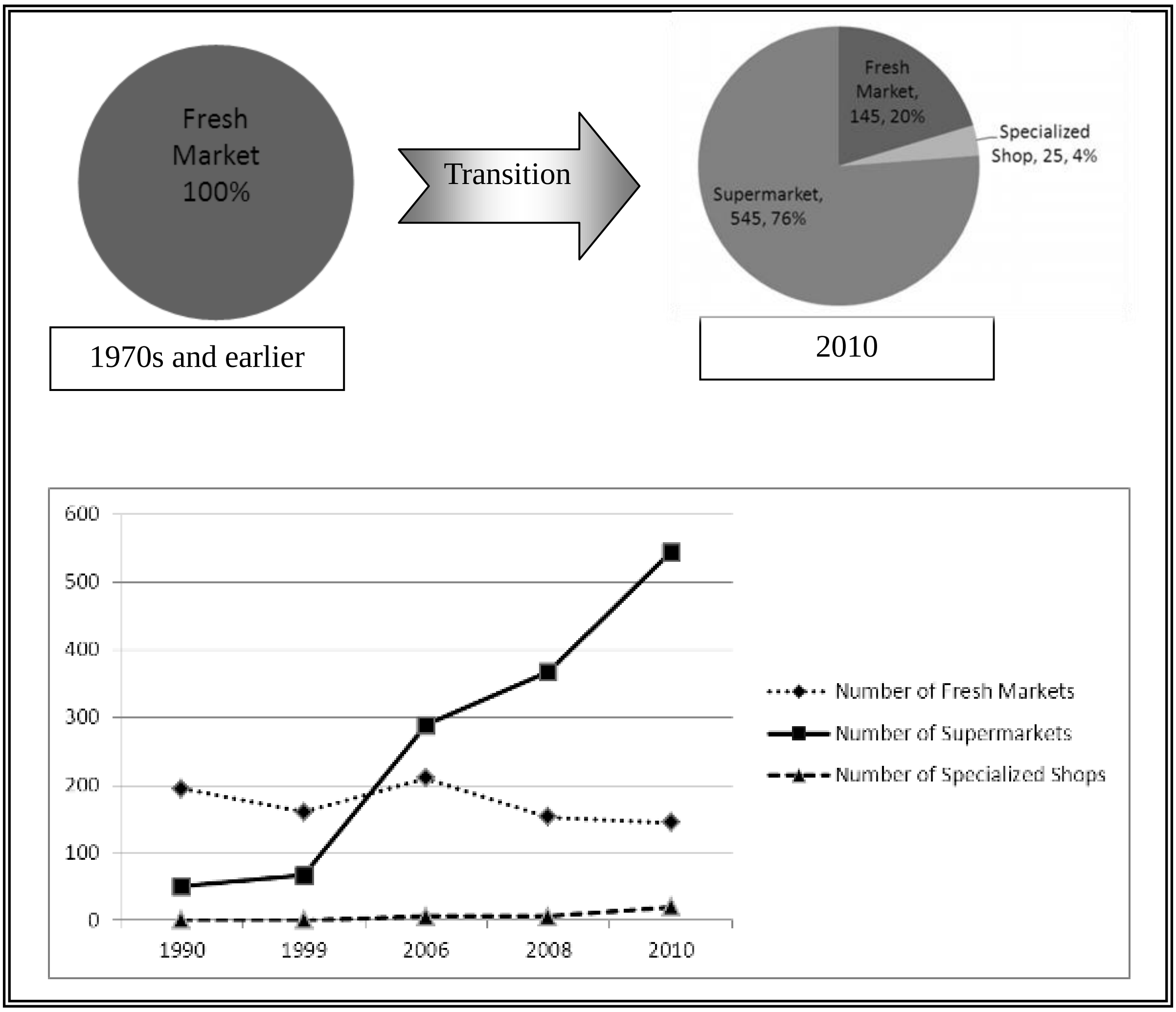
We can also roughly classify consumers in Bangkok into 3 groups according to where they shop. However, some consumers can be categorized within more than one group, especially if they act as both a “traditional” and a “modern” consumer at different times or in different situations (Viteri 2010). The first group includes consumers who always shop in fresh markets and grocery stores. Goldman (1974) identified three major practices of consumers who buy in local food stores. These consumers have a habit of buying food in each type of store, shopping frequently, and buying small amounts of food on each trip (Goldman 1974). The loyalty to the traditional food stores is also maintained by personal relationships between traditional consumers and traditional retailers (Goldman 1974). These people generally purchase fewer items on each shopping trip and prefer making frequent trips. These fresh markets also sell more food items in small portions which is consistent with these traditional Thai habits (Schaffner, Bokal et al. 2005).

The second group includes consumers who have shifted their shopping behaviour from traditional to modern places, such as supermarkets and hypermarkets. These consumers prefer shopping in the modern retailers because of time pressure and convenience (Kinsey and Senauer 1996; Tokrisna 2005; Shannon and Mandhachitara 2008), and the wide range of product categories available (Gorton, Sauer et al. 2009). As Traill (2006) argues supermarkets are no longer places where only rich people shop, the number of consumers shopping in supermarkets has dramatically increased.

The third group includes consumers who are aware of health and environment issues and often shop for food at the specialized shops. Lockie et al. (2004) identifies 4 categories of green consumers likely to eat organic food. The first are rich consumers who are willing to pay a premium price to enhance their personal health and well-being. The second group are environmentally-concerned consumers who buy green food more when it is simple or convenient for them. The third is a small group of hard-core environmentalists who only purchase for environmentally friendly products. The last are environmentally concerned consumers who are restricted by money and availability of green food (Lockie, Lyons et al. 2002). The characteristics of this group of consumers is unique in terms of the food selections they make. Roitner-Schobesberger et al. (2008) found that consumers of organic vegetables in Bangkok tend to be older, higher educated, and wealthier (Roitner-Schobesberger, Darnhofer et al. 2008).

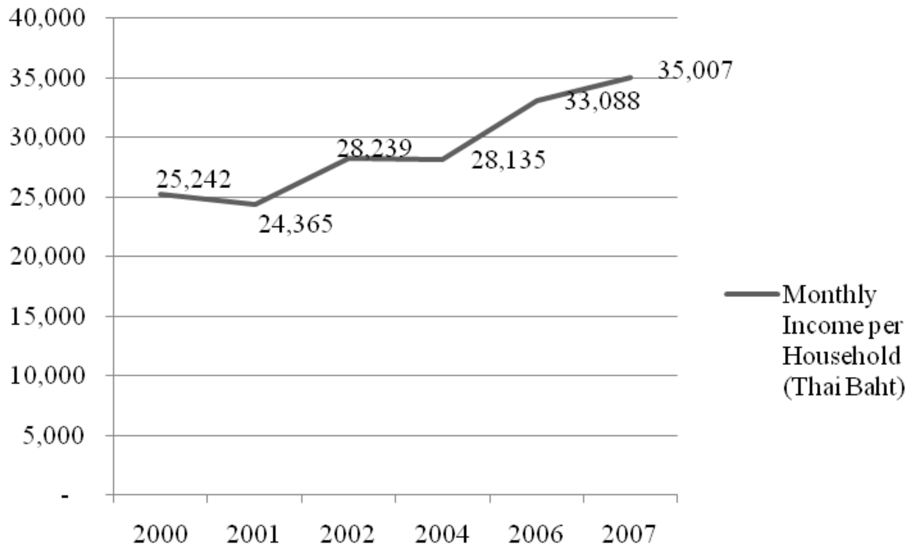
The development of food provision in Bangkok is shown in Figure 3-9. The food market in Bangkok has developed from a purely traditional one to a combination of traditional and modern sectors. In the 1970s and earlier, fresh markets accounted for hundred per cent of food shopping in Bangkok. From that time on, the food retail system in Bangkok has been modernized. The increasing number of modern retailers is consistent with the growth of household incomes. Figure 3-10 shows that total monthly income per household in Bangkok increased from 25,242 Thai Baht in 2000 up to 35,007 Thai Baht in 2007 (National Statistical Office Thailand 2011). This can be strongly associated with the rapid rise of supermarkets in Bangkok.

Figure 3-9 Transition of Food Market Retails from the Past to the Present (2010)



While the number of modern retailers has rapidly increased it has not yet totally replaced the traditional sector. Fresh markets and grocery stores are still vital in Bangkok. Goldman et al (1999) identifies four reasons for supermarkets' failure to penetrate these markets in less developed countries. Firstly, consumers' abilities and preferences such as low income, lack of storage facilities, and purchasing small amounts make them reluctant to switch from their traditional stores (Goldman, Krider et al. 1999). While fresh markets cannot compete with supermarkets on perceived food safety, they continue to cater for the Bangkok population considered to be poor, of low education and who value a traditional diet and lifestyle (Dixon, Omwega et al. 2007). Secondly, supply and distribution infrastructures are less advanced in less developed countries. Lack of warehouses, transportation, and storage infrastructures reduces the reach of supermarkets (Goldman, Krider et al. 1999). Thirdly, government policy in less developed countries often subsidizes traditional retailers and imposes restrictions on modern retailers. Although the government wants to increase retail efficiency, a decline in traditional retailers might result in a higher unemployment rate (Goldman, Krider et al. 1999). Lastly, the traditional retailers in less developed countries have the power to protest against multinational retailers and pressure governments to restrict supermarkets' operations (Findlay, Paddison et al. 1990; Goldman, Krider et al. 1999).

Figure 3-10 Total Monthly Income per Household in Greater Bangkok



Source: National Statistical Office Thailand, 2011

In the case of Bangkok, fresh markets and grocery stores still play an important role because of consumers' preferences and the power of traditional retails. Apart from low income consumers, some middle class consumers also stick to the traditional way of life and continue buying food from the fresh markets. Also, the traditional retailers in Thailand have protested against the fast increasing number of multinational retailers, which affects local fresh markets and grocery stores. Thailand brought in the Competition Act in 1999 and issued zoning laws specifically aimed at hypermarkets in 2003 to control the growth of modern retailers (Mutebi 2007).

In reality, consumers do not purchase their entire shopping bag at one location. Schaffner et al. (2005) argue that it makes sense to buy some types of food at a fresh market and others at a hypermarket, taking advantage of what a fresh market can offer while avoiding their higher prices for manufactured food items. Therefore, there is some overlap between the groups of traditional and modern shoppers.

One conclusion of this chapter is that retailers in Thailand are modernising. The interesting question then is how these modern retailers interact with Thai consumers in order to balance supply and demand for modernization and sustainability. Chapters 5, 6, and 7 of this thesis explore ways of modernizing consumers in urban Thailand in a more sustainable direction.

Chapter 4 Providing Sustainable Food in Urban Thailand

4.1 Introduction

To understand the practice of shopping for green food, it is important to study both the system of green food provision and consumer lifestyles. The system of green food provision can be described in terms of a set of variables and indicators that characterize the main actors in the provision system, while consumer lifestyles refer to the set of variables describing consumption patterns of people who buy green food (Oosterveer, Guivant et al. 2007). This chapter focuses on the main actors in the green food provision system in urban Thailand. In Bangkok, there are two main channels that distribute sustainable foods: 1) specialized shops and 2) supermarkets. The number of other retailers is limited and they are still only beginning to provide sustainable food. This chapter therefore only looks at supermarkets and specialized shops.

The specialized shops in Bangkok sell organic products, healthy food and food products for special dietary needs. Most specialized shops are combined with restaurants and coffee shops. And, while most supermarkets in Bangkok offer some sustainable food products, the exact range depends on their location (Roitner-Schobesberger 2006). This chapter analyzes the strategies of specialized shops and supermarkets in providing sustainable food by examining the quantity and quality of sustainable products on offer, through direct observation. These observations were quantified in terms of the number of sustainable food products available and the per centage of each product category in the shop. Qualitative characteristics describe the information provided to consumers and the ways in which retailers communicate with their customers.

It is important to know more about these strategies of the specialized shops and the supermarkets to see whether the green food offer is strong or weak. A strong offer would include large amounts of sustainable food and rich in information and communication with consumers, while a weak strategy would have small amounts of sustainable food and a lack of information and communication. If the strategies are weak, this (rather than a lack of interest by consumers) can be said to limit the consumption of sustainable food. This chapter, therefore, examines specialized shops and supermarkets in Bangkok to see whether their strategy for green food provision is strong or weak.

The methodology, including the observation method, the justification of the sample, and sample sizes and how it relates to the theoretical framework are explained in section 4.2. The observations were carried out in 2008 and 2010, providing an opportunity to compare changes over these two years. Section 4.3 provides results for four selected specialized shops in Bangkok. Section 4.4 focuses on five supermarkets, giving details about their sustainable food offer. In the concluding section (4.5) these results are aggregated to a more general level to identify different provider strategies.

4.2 Methodology

This section explains the research methodology used and how the theoretical framework is connected to the fieldwork. It provides justifications for the focus of analysis, sample size and selection, as well as a description of the methods of data collection. Variables used in data collection are also explained.

4.2.1 Objects of Analysis, Sample Size, and Selection Criteria

According to the Thai Green Market (2010), there were 25 specialized sustainable food shops in Bangkok in 2008.[4] The sample for this survey was selected from this list. Four specialized shops were selected by purposive selection: Ban Navilit, Suan Nguen Mee Ma, Health Me Shop and Thai Sabai. These shops have all been in business for at least three years, and thus have a clear structure and are representative of specialized shops which only sell sustainable food. They were all members of the Green Market Network. The geographical location of these specialized shops was not taken into consideration. These shops are located in various areas of Bangkok. Only one shop rented the area in an office building to sell the food while the rest was located in the houses of the owners, who did not purchase or rent a new place to establish the shop. Three of these specialized shops combined restaurants or coffee shops in their premises, which were also investigated in this study.

In 2010, there were 545 supermarkets in Bangkok, belonging to 11 supermarket chains (see Table 3-4 in Chapter 3). Five of these supermarket outlets were selected: 1) TOPs, 2) Foodland, 3) Villa Market, 4) Gourmet Market, and 5) Golden Place. The purposive sampling selection was applied to choose supermarkets where sustainable food products were available. These selected outlets were premium supermarkets in Bangkok. Here the geographic location of the outlets was taken into consideration. The five selected outlets were all located in the business area of Bangkok, where different types of sustainable food are made available to respond to demand from middle-class consumers living and working in the area. Different supermarket chains were selected for the sake of comparison.

4.2.2 Data Collection

The method of data collection was adapted from a study that analysed the greening of food provisioning by looking at the sustainability strategies of Dutch supermarkets, as communicated through the physical characteristics of the retail outlets (Korbee 2008).

The data were collected through participant observation. The shops were visited partly in the role of a consumer, looking at how sustainability is framed on the shop floor. Each visit to the selected retail-outlets consisted of *three rounds*.

The central focus of the *first round* was on the images and impressions that a customer gets when entering the shop: the images and words that immediately catch consumers' eyes. This first round is open to all influences, without following a tight list of variables.
In the *second round* the shop is visited as if by a focused consumer, holding a detailed shopping list. This round is more specific than the first one and focused on the characteristics of the shop level: the ways that consumers are guided to, and encouraged to buy, sustainable food products. This shop level consists mainly of three elements; information about sustainability, ways of drawing attention to sustainable food products, and the promotion of

[4] Only specialized retail shops were included. Producers and wholesalers and non-food shops were excluded.

sustainable food products. Information tools, the placement of sustainable food products, information given by the shop personnel and the promotion of sustainable food products are described to inform a impression of sustainability at the shop level.

The *third round* is the most specific one, focused on specific information about the available sustainable products. The number and percentage of particular sustainable food products, their shelf positions and sustainable label on the package are all investigated.

4.2.3 Checklists and Variables

This section discusses the three rounds of observation that were carried out and the variables that were investigated.

4.2.3.1 First Round: First impressions

The first round was dedicated to the first impressions of the shops. The main questions were what images and focal points attract the consumer on entering the shop? The impressions and the observations made upon entering and wandering around inside the shop were written down immediately, focusing on four variables. These variables were adopted from a checklist developed by Korbee (2008) in assessing the sustainability strategies of Dutch Supermarkets (see Appendix 1).

The first two variables focus on the initial images and messages about sustainability. But these are not the only first impressions of the retail outlet and for this reason, a third variable was added, checking for references to product qualities, such as taste, easy preparation, freshness and food and lifestyle. The fourth variable looked at any reference made to shopping as a total experience. Such activities could include a coffee corner, opportunities to taste the products or a play area for children.

4.2.3.2 Second Round: Shop characteristics above the product level

The scope of the second round was on the shop characteristics above the product level. The central focus in this round was the extent to which customers are guided towards sustainable food products and encouraged to buy them.

Sustainability issues at the shop level can be framed through a number of tools, such as folders, posters and information pillars. This variable was measured by recording the use made of such tools and the messages displayed through these tools and their placement.

The way the retail outlet draws attention to sustainable products was measured by seven variables. The first is the information given on the shelves. The second is the availability of tools to draw attention to sustainable products. The third is the content of the sustainable issues referred to such as environment, animal, food safety, and social issues. The fourth is the verbal information that shop personnel is able to give: this was checked by asking a member of staff whether they sold one of the products on the list. The fifth indicator is the extent to which consumers were encouraged to buy sustainable products: through prominently positioning sustainable products or promotion activities. The sixth variable is the presence of sustainable products in the shop to check the variety and availability of sustainable food. The seventh variable to draw attention from consumers is promotion campaigns of sustainable food products (i.e. discount, buy 1 get 1 free, etc.). These variables were based on the checklist derived from Korbee (2008).

4.2.3.3 Third Round: Product level

The level of observation in the third round was on product level, measuring the supply of sustainable food. Nine products groups were checked in detail; rice, fresh fruit and vegetables, processed fruit and vegetables, coffee and tea, beans, food ingredients (e.g. sauces and seasonings), butter, honey and meat. The selection is made for practical reasons as it would not have been possible to check the complete product assortment in each shop (due to time constraints). The nine product groups were chosen because they are all sustainably produced in Thailand (Green Net / Earth Net Foundation 2005).

Three indicators were used to measure the supply of sustainable food: 1) the amount of sustainable products, 2) the specific information on these sustainable food products, and 3) the positioning of sustainable foods on the shelves. The first indicator was assessed by a simple count of the available sustainable products, which were also compared as a proportion of the conventional products. This made it possible to compare larger shops with smaller shops. The information on the packaging and on the shelf and the positioning of sustainable foods and the shelf space dedicated to them were used to assess the second indicator.

The first round of observations was conducted in 2008 and this was followed up by a second set of visits in 2010. The reason for carrying out two surveys was to assess if any changes occurred in the sustainability strategies of retailers in this period. Changes in the assortment and percentage of the available sustainable food products would indicate an increase (or decrease) in the provision of sustainable food in central Bangkok.

4.3 The Survey of Specialized Shops

4.3.1 Ban Navilit

Ban Navilit was founded early 2000 by a successful businessman involved in chemical free agriculture. The owner had started a green business, cultivating organic local rice on an area of 1.28 hectare in Petchburi Province. The paddy rice field is cultivated following ancient methods, using buffalos to plough the fields instead of machines. The success of the rice production allowed the owner to open a specialized shop on the ground floor of Regent House Office for Rent Building inside the business area of Bangkok. The shop sells a range of sustainable products including rice, local vegetables and salted eggs, many supplied from the farm and others from other members of the Green Market Network.

Profit is not the major objective of Ban Navilit. The business is run as a cooperative and the main goal is to provide a link between the farm and the urban area. Ban Navilit is located in an office building and the primary target consumers are the office staff in the building. The majority of regular consumers are female and over 30 years old. Some passers-by have also become regular customers.

The first impression of Ban Navilit was related to safe food, personal health and environmental concerns. The words “Organic Fruit and Vegetables” and pictures of vegetables on a big poster at the shop entrance are the first things that customers see (Figure 4-1). There was a blackboard on the left hand side of the poster, listing the available healthy food products (i.e. organic milk, butter, eggs, and juice). Also, a “Good Life” shelf was positioned at the entrance, highlighting the health concerns of the shop. The words “Healthy and

Delicious Meals” appear on a large sign inside the shop. Books about health and Buddhism, as well as cotton clothes made by the community close to the farm were sold inside the shop. The consumers can buy food to eat and read a book at the corner. The general impression of Ban Navilit did not change from 2008 to 2010.

There is no specific shop-level information tool. However, the consumers can ask for guidance about food products and get further detailed information from the shop personnel. Most products in the shop were sustainable, with a mix of certified and uncertified sustainable food products. The sustainable food products available in the shop included rice, milk, yogurt, beans, honey, and processed foods. Some conventional food products such as soft drinks and water were put on the lowest shelves. Regarding promotion campaigns on specific products, “Healthy Mate” branded products were on offer at a 10 per cent discount at the first visit.

The Ban Navilit shop carries more dried than fresh food. Although the general impression at the shop level was the same in 2008 and 2010, there were less sustainable food products in 2010. In 2008, three sustainable foods from the checklist were found, while in 2010 only sustainable rice was found. In 2008, the shop carried 13 sustainable rice products, ten of which were produced under its own brand: “Navilit”. The other three were produced by the Green Net Foundation. Navilit branded rice products were not certified by a third party but the packaging clearly explains that they are organic and fair-trade. The Green Net rice products were certified by the International Federation of Organic Agriculture Movements (IFOAM). In 2010, the number of sustainable rice products in the shop had decreased to four, all under the “Navilit” brand. In addition, there was one germinated brown rice (without any standard) on the shelf. All the rice products were placed on one side of the shelf, in full view of the buyer. The small packages were placed at the top while the big packages were placed on the bottom.

In 2008 the shop also carried soy bean sauce and fermented soy bean. These products were placed on the top shelf and thus were noticeable. All these products were produced under the Institute for Sustainable Agriculture Community (ISAC) brand. ISAC is a local NGO in the North of Thailand (Chiang Mai Province), which promotes sustainable agriculture among local farmers. One sustainable honey product was also found in the shop. This was certified by IFOAM and placed on the bottom shelf (so difficult to find). The sauce and the honey were not found in 2010.

The Ban Navilit Shop also sold processed cereal foods, including a cereal bar and cereal drinks from the “Xongdur” brand. These foods were certified by the Department of Agriculture’s (DOA) Organic Thailand and were placed at eye level on the shelf. Non-certified organic milk and yogurt were also available in the refrigerator. The number of sustainable food products found in the Ban Navilit Shop is shown in Table 4-1.

In the follow up visit in 2010, there were less sustainable food products in the shop, but more cosmetic and skin care products made from natural ingredients. This might have been caused by the political unrest at that time, which made it difficult for the shop to stock short-life food products.

4.3.2 Suan Nguen Mee Ma Shop

The Organic Station at Suan Nguen Mee Ma is a small specialized shop selling community-produced and sustainable products. Besides distributing quality and safe products to consumers, Suan Nguen Mee Ma also disseminates information about organic farming in order to form new groups of consumers who are concerned about their health and the environment. Most products in the shop are supplied by the Mae Ping Kaset Thammachart Partnership Limited in Chiang Mai Province and Dairy Home Farm in Saraburi Province. The Mae Ping Kaset Thammachart Partnership Limited supplies organic rice, washing detergent, shampoo and lemongrass spray while Dairy Home Farm supplies milk and yogurt.

The first impression upon entering Suan Nguen Mee Ma related to the specific lifestyle of people with environmental and social concerns. A big green sign with the words “Green Shop” hangs above the entrance. When entering the shop, the consumers observe a green sign saying “Green Market Network”, with a picture of trees and smiling people inside the logo (Figure 4-2).

At the shop level, there was no prominent display but there were many documents and leaflets about sustainability and people were welcome to help themselves to these. The shop personnel was friendly and helpful in directing customers and giving information about sustainable food products.

In 2008, the certified organic products were separated from the non-certified products and the certified shelf was clearly indicated. In 2010, the shop was divided into three sections, with different levels of sustainable products; 1) organic products (Figure 4-3), 2) chemical-free products, and 3) chemical-safe products. The description of these three levels of sustainability was explained on a poster near the entrance.

The layout of the products followed the basic principle of placing foods on the upper shelves and other commodities on the lower shelves. The number of sustainable food products was quite small as the small size of the shop meant that it could not stock a lot of products.

In 2008, there was a special corner for beverages, where customers could choose from a range of organic milk and yogurt products and juices. There were three small tables available where customers could sit down to consume these and read the books available in the store. The menu of organic milk and yogurt, saying ‘Organic Menu-Healthy-Toxic Free’, was placed on the tables. In 2010, Suan Nguen Mee Ma had extended the size of the shop and set up a restaurant inside it. Healthy dishes, made from various vegetables and fish, were available to consumers. However, the menu did not mention if this food was sustainable.

In 2008 the Suan Nguen Mee Ma Shop sold the following sustainable products: rice, vegetables, soy bean sauce and honey. In 2010 sustainable rice, dried fruit, tea, and bean were found. The sustainable food standards in Suan Nguen Mee Ma varied from international standards (IFOAM) to national organic standards such as DOA and ISAC. The majority of sustainable products were certified by ISAC, which is more affordable and a standard that is accepted by Thai green consumers. Suan Nguen Mee Ma Shop also provided non-certified organic milk and yogurt from Dairy Home Farm. Milk and yogurt products were placed in the left side of refrigerator, visible to the consumers. Milk products were placed on the second level while yogurt products were placed on the third level of the shelf which was also easily visible. The storylines of the organic milk and yogurt were presented on the package.

4.3.3 The Health Me Shop and Restaurant

The Health Me Shop owner was motivated to open the specialized shop as she is a health lover who wanted to share healthy food with other people. She got married with a doctor who takes health, safety and nutrition seriously. She gathered much of her knowledge about sustainable food when she was bringing up her children.

The owner is a close friend of the Dairy Home Farm owner in Saraburi Province. The Dairy Home Farm is the only (non-certified) organic milk producer in Thailand. This personal connection led the owner to start a green business, with a milk and yogurt delivery service. Other foods such as vegetables, fruit, eggs, and processed food were later added to the service. In the beginning, the targeted consumers were people concerned about health in the hospital and the school. She drives a van and delivers sustainable foods herself; so she communicates personally with her customers. She also maintains e-mail communication with them.

Following on from the delivery service, she opened a specialized shop and restaurant, which is family operated. Although not in the main business area, it is opposite the Headquarters of the Kasikorn Bank, and attracts a large number of customers from the bank who have purchasing power and health concerns. The ingredients for the restaurant are taken from sustainable food products sold in the shop. New and diverse menus are regularly provided to attract customers.

The first impression of the Health Me Shop is related to personal health concerns. The name of the shop and drawings of vegetables are presented on a big board above the entrance. This is accompanied by the wording “good health can be achieved by eating healthy food” (Figure 4-4). In 2010, the Health Me Shop was expanded and renovated but the first impression of the shop continues to be dominated by health concerns.

Information at the shop level included information posters and bulletin boards set around the shop (Figure 4-5). The information consisted of health tips, sustainable products, green market, and detox through the ‘Thai Technique’. Health and cuisine magazines, as well as green market newsletters, were presented on the book shelf. The shop personnel were able to give precise information and recommendations about sustainable food to customers. The shop owner also asked for email addresses from regular customers to send them news about sustainable food and updated information on the shop.

The shop sells sustainable rice, processed food, ready to eat food, and dairy products. The menu in the restaurant consisted of salads and other Thai food, utilizing sustainable ingredients. There was no promotion campaign on any specific products at the time of the two visits.

All the food products in the shop were sustainable. As a result, positioning was not required to attract customers’ attention. Space was limited and the same types of products were grouped together at the same level of the shelves.

The Health Me Shop focused on providing information at the shop level rather than at the product level. Five sustainable foods from the lists; rice, fresh fruit and vegetables, processed fruits, sauces and honey were found in 2008 and two more sustainable food products (tea and sesame butter) were found in 2010. As with the other specialized shops, most of the certified products had been certified by ISAC, with some food items certified by IFOAM.

Fresh vegetables were certified by Organic Thailand from the Department of Agriculture (DOA). The number and percentage of sustainable foods in the Health Me Shop are shown in Table 4-1.

The Health Me Shop also sold non-certified organic milk and yogurt from Dairy Home Farm. These products were placed in the refrigerator at the entrance of the shop. The word "organic" was noticeable above the refrigerator, although the products were not (yet) certified by any third party. In the interview, it emerged that DOA's organic certification does yet cover milk and yogurt products. International certification is too expensive for products that will only be sold on the domestic market, so Dairy Home Farm's products are not certified: they only carry a story line on the packaging. In 2010, the shop carried more sustainable food assortments, including eggs and cereals.

In 2008, the Health Me Shop also had six tables inside the shop for the restaurant space. In 2009, the restaurant space was extended to the second floor and the number of tables increased to 15. At noon, many staff from the bank opposite the shop have lunch here and the tables are always occupied. The restaurant cannot provide more tables because of limited human resources. Normally, the restaurant offers a different daily menu on each weekday. Customers are also able to order special foods from 12 lists in the menu. The wording 'Menu for Health' was prominent at the top of menu.

4.3.4 Thai Sabai Shop

The Thai Sabai Shop is located near the subway station in the business area of Bangkok. The shop offers an all-in-one service, combining a specialized shop, restaurant, coffee shop and spa on one location. Various products in the shop were produced by their own farm in the north of Thailand, under the brand "Khaokho Talaypu". The Thai Sabai Shop in Bangkok has operated since 2005. The distinctive features of products in the shop are the focus on health and environmentally friendly management as well as on the self-sufficiency principle. Chemical fertilizers and pesticides are not used on the farm. Thai Sabai also supports social sustainability by buying products from hill tribes and the local community to sell in the shop. In addition, there are various activities including classes on cooking, yoga, drawing, macrobiotics, and meditation. Some of these activities are run at the Bangkok shop, while others take place at the farm in northern Thailand.

The first impression of Thai Sabai Shop was related to personal health concerns. The name of the shop was presented on a big board above the entrance. In addition, the phrases "Health Products", "Massage for Health", and "Health Activity" featured prominently on the board. The shop was decorated with trees to make customers feel calm and peaceful (Figure 4-6). On entering the shop, the researcher first noticed various sustainable products, mostly under the Khaokho Talaypu brand. The restaurant and the coffee shop was located on the right hand side of the shop with a massage and spa service on the second floor. By providing various sections, the Thai Sabai shop gave the impression of providing a complete health service.

In 2008, the information at the shop level included posters hung around the shop, which stressed the natural way the shop's products were made. The shop personnel were able to give information and recommendations about sustainable food to customers. In 2010, more information about sustainability was observed. Lists of products accredited by IFOAM were visible on the product shelf and behind the cashier there were leaflets provided for interested consumers. The main content of the leaflet included the route of sustainable products from the farm in Petchabun Province to the shop in Bangkok. The leaflet also promoted various health products, and the massage and spa available at the shop. No promotion campaign on the specific products existed at both visits.

At the product level, sustainable rice, vegetables, processed food, coffee and tea products were on sale in the shop in 2008. In 2010 sustainable vinegar, honey, and eggs were also available. The number and percentage of sustainable foods in Thai Sabai Shop are shown in Table 4-1. The "Khaokho Talaypu" brand rice and vegetables were certified by IFOAM and the other sustainable foods were not-certified by any third party, but carried a story on the package.

Besides selling sustainable food, the Thai Sabai Shop set aside half its area for a restaurant and coffee shop. The restaurant consisted of eight tables and offered "Good Taste for Good Health" dishes made with organic ingredients, fresh from their own farm. However, these dishes were rather expensive.

Although the leaflet said organic coffee was served in the coffee shop, the wording "organic" did not appear on the menu (Figure 4-13). When asking for organic coffee, the shop personnel explained that Thai Sabai coffee shop used their own coffee beans from the highlands, grown organically and harvested and roasted with modern technology of international standards. All the types of coffee served in the Thai Sabai coffee shop were organic.

The coffee shop also had computers with internet availability. When entering the shop, it was as if the consumers went into another world, very different from the busy environment of Bangkok. The internet corner was kind of tool to attract customers who would like to rest a while from the busy environment outside.

Figure 4-1 In front of Ban Navilit Shop

Figure 4-2 Green Market Network Logo at Suan Nguen Mee Ma Shop

Figure 4-3 Separated Organic Shelf at Suan Nguen Mee Ma Shop

Figure 4-4 Health Me Shop

Figure 4-5 Information in Health Me Shop

Figure 4-6 Thai Sabai Shop

4.4 Key Providers of Sustainable Food: Empirical Findings of Supermarkets

This section presents five case studies of major supermarkets in Bangkok involved in providing sustainable food. These five supermarket stores include TOPs, Foodland, Villa Market, Gourmet Market at Paragon, and Golden Place. First of all, I briefly present each company profile and then describe the sustainable food in the supermarket moving from the general to the specific picture; first impressions, characteristics of the shop level, and then, at the product level.

4.4.1 TOPs Supermarket

TOPs supermarkets have been operated by Central Food Retail Company, Ltd since 1996. Currently, TOPs have 88 stores in Bangkok and 37 stores upcountry (TOPs 2008). Most of the stores are located on the ground floor of Central and Robinson department stores, owned by the Central Group (Shannon 2009).

TOPs stores are divided into four formats (Shannon and Mandhachitara 2008) which represent the variety of consumers' shopping lifestyles (TOPs 2008); 1) TOPs Market (large supermarket), 2) TOPs Super (standard supermarket), 3) TOPs Daily (convenient store), and 4) the Central Food Hall (upscale supermarket). The Central Food Hall has been launched as one of the most extravagant supermarkets in Thailand, targeting upscale consumers. The Central Food Hall is located in the biggest department store of Thailand, Central World, which covers over 550,000 square metres. TOPs Daily supermarkets were launched in 2006 to compete with Tesco Express (Shannon and Mandhachitara 2008) in terms of price and convenience.

TOPs stores provide various food products and the groceries at competitive prices. Price promotions include 'Red Hot', which offers selected products at the lowest market rate during promotional periods; 'TOPs Sale', a broader range of selected products which changes every one to eight weeks; and 'Buy 1 Get 1 free'. All TOPs stores are certified in terms of food safety and have received the Golden Label from the Ministry of Public Health (MOPH). Central Food Retail was the first retailer in Thailand to receive this food safety certificate (TOPs 2008).

Central Food Retail has two well-equipped distribution centres. One is the distribution centre for consumer products, the other is the distribution centre for fresh food, which has also been certified by MOPH's Food Safety Golden Label. In addition, the Fresh Distribution Centre has been given a certificate of Good Manufacturing Practices (GMP) and Hazard Analysis Critical Control Point (HACCP). TOPs also promote SPOT Rewards Card (Bonus Card) (Shannon and Mandhachitara 2008), the first electronic Customer Relationship Management (CRM) member card in Thailand and in Asia.

Regarding environmental concerns, Central Food Retail has introduced a "Go Green" strategy, by introducing recyclable paper bags[5]. Another 'Go Green' initiative is using biodegradable plastic bags that will be rolled out at all 106 branches of the company (TOPs 2008). Following the ecological modernization concept, Central Food Retail believes that the retail businesses can help to save the earth while continuing to provide people with safe, clean food. Organic food in the Central Food Hall in Central World is also promoted under the "Go

[5] Unlike supermarkets in Europe, every supermarket in Thailand offers free plastic bags and puts the groceries inside the bags for customers.

Green" campaign (Figure 4-7). The exhibition board at the entrance explains why consumers should buy organic products. The "Go Green Organic" tab was also on display at the organic shelves. "Go Green Organic" magazines were distributed at TOPs supermarket. A "Go Healthy the Organic Way" campaign was established in February 2009 at every TOPs supermarket and the Central Food hall to promote organic food from 74 brands.

The TOPs store in the central business district was selected for the research visit. The images and wordings about sustainability around the store were mostly related to safety and personal health concerns. Inside the entrance, the consumers first see fruit and vegetable shelves. In 2008, there was a large and eye catching sign saying "At Top Market an apple a day keeps the doctor away. TOPs Market brings you a minimum of 8 varieties of them, from 8 different countries, everyday". This sign clearly sent a strong health message from the supermarket, encouraging consumers to eat fruit. However, the wording was in English, which could imply that the target group of TOPs in Silom district (business area of Bangkok) was foreigners working in the business area. In 2010, the researcher noticed the wording "Only the absolute best goes into our organic produce". This sentence focused more on the organic products. Health and organic concerns as well as the luxurious shopping store made food products look fully sustainable.

At the shop level, a poster was displayed at the entrance and at the meat shelves providing information about the safety pork sold in TOPs. The heading of poster was "A natural, healthy environment for our farm animal produces better, tastier meat". The remaining contents explained the meaning of free range, careful nurturing, quality feed, and no hormones or antibiotics. There was also an A4 poster explaining the organic apples imported from USA (and certified by USDA), shown above the apple shelves. Safe and high quality issues were mentioned in framing the sustainable products. In addition, "Fresh Organic" tabs were shown on the vegetable shelves. A poster, which provided information about organic fruits and vegetables in season was observed in both 2008 and 2010.

Regarding the position of sustainable products in the shop, sustainable vegetables were clearly separated on the shelves. In 2008, markers for "organic", "hygienic", and "hydroponic" were shown to lead consumers to the sustainable products. However, information about what is organic, hygienic, hydroponic was not available and all the tabs were in English. This suggested that the supermarket assumed that the target consumers must know about these definitions already. In 2010, only the "Go Green Organic" tab was observed (Figure 4-8). This told consumers that they could help the environment by eating organic food. There was no information tab or wording shown at the conventional vegetable shelves. Other sustainable food products were mixed with conventional products.

In 2008, six types of sustainable products (rice, fresh fruits and vegetables, herbal tea, food ingredients, butter, and meat) were found in the supermarket. In 2010, additional sustainable food products (i.e. cereals, vinegar, and coconut oil) were found. However, there was no promotion campaign for these sustainable food products. The number and per cent of sustainable foods in TOPs are shown in Table 4-2.

Sustainable food was generally mixed with conventional food. Sustainability standards varied from national standards, such as Organic Thailand from DOA, the National Bureau of Agricultural Commodity and Food Standards (ACFS) Quality mark, and that of the Department of Medical Sciences, to international standards such as IFOAM and Bio Agricert. Some products, such as Green Net rice, were not officially certified but carried a storyline on the packaging (for example, “Healthy Living: Organic rice is good for your health”). Information about sustainable food products was not shown on the product shelves.

4.4.2 Foodland

Foodland was established in 1972. The supermarket is open 24 hours a day and mainly caters to middle and up-market customers who live in and around the business areas, guests of five star hotels and diplomatic personnel around Wireless Road. It carries a selection of imported products, meats, seafood, and household wares. Currently, Foodland has 10 stores in Bangkok (Foodland 2008).

Foodland supermarket focuses on being a reliable and high quality food retailer, providing good service at a fair price. The trademark of Foodland is that of a food retailer offering the highest consistent quality of fresh food products to customers at standard prices. To ensure safety standards, Foodland is a member of two international food organizations, the U.S. Food Marketing Institute (FMI) and CIES, the French Food Forum. Hazard Analysis Critical Control Point (HACCP) has been followed.

Foodland has restaurants in 9 of its 10 stores in Bangkok. They are named “Took Lae Dee” meaning “Cheap and Good”. The restaurants are also open 24 hours daily. The operation aims to provide excellent food and rapid service to the customers. Hygienic standards start from selecting fresh food ingredients from the supermarket and house brands. The menu offers well known Thai, Chinese and European style dishes. The popular menu includes American breakfast, a weekend special set menu and European dishes. No sustainable food menu is specially offered.

Foodland also created a house brand that stands for high quality and complete customer orientation and commitment. The company has invested in and built production facilities for high quality meat and bakery products. Butcher’s Choice was established in January 1992 with a small meat processing plant at Foodland headquarters. Four years later, the plant was expanded and moved to the Lardkrabang Industrial Estate. Butcher’s Choice offers premium products in German style butchery, such as sausages, hams, cold cuts and pickles. The raw materials are from highly accredited suppliers to ensure top hygiene and product freshness as well as to maintain high quality standards and production is in accordance with the international standards of HACCP. Before distribution, all the finished products are microbiologically and sensory tested. The second house brand is “Oven Fresh Bakery”, which was started in July 1992 and offers a wide range of fresh and high quality bakery products, such as breads, rolls, puffs, croissants, cookies and a large variety of cakes which are baked daily in European style. Oven Fresh Bakery counters are well located, usually close to the entrance of every store. Spaciously and cleanly showcased bakery product counters allow for a blend of self service and bakery staff service.

The first impression of Foodland was that of a modern shopping lifestyle. Foodland emphasized its 24 hours opening. The wording “we never close” was observed on the entrance door. Sustainability images and messages around the store were mostly related to safety and personal health concerns. A Food Safety Standard notice board showing certification by the Ministry of Health was shown near the vegetable shelf. The colourful decorations around the fruit and vegetable shelves give a sense of vibrancy. Many food products, such as salads, were ready-to-eat. Product consultants (PC) for some products had booths to offer customers tastings and to give information about the products. Foodland also presented a variety of international food products and food from many countries, such as India and Japan.

At the shop level, a label of “organic and hydroponic vegetables” (Figure 4-9) was attached to the vegetable shelves. In addition, the food safety sign issued by the Ministry of Public Health was installed on the wall to show that all vegetables sold in Foodland were safe for consumers. However, there was no detailed information or description about the definition, or benefits, of organic/hydroponic food.

In terms of the position of sustainable products in the shop, sustainable vegetables were clearly separated from conventional vegetables. Tabs for “organic and hydroponic” were visible, leading consumers to the sustainable products. However, organic and hydroponic vegetables were mixed together on the shelf. There was a range of information tabs saying “recommended”, “best seller”, and “healthy food”, etc. (Figure 4-9). Sustainable rice, fresh fruits and vegetables, jam and honey were found in the supermarket. When the shop personnel were asked for sustainable food, they were helpful in directing the researcher to the sustainable vegetables. They were not sure about other kinds of products but did say that all the products in the supermarket were safe.

One promotion campaign of sustainable products was being made at the time of the survey. There was a Pacific soup booth with a product consultant (PC) offering consumers the opportunity to taste the soup (Figure 4-10). The PC also informed the consumers about the health benefits of soup in terms of safety, health, naturalness, and low sodium content.

Five sustainable food products; rice, fresh fruits and vegetables, jam, honey, and hygienic meat, were available in Foodland supermarket in 2008. The standards of sustainable food included national and international certification. Most of fresh fruit and vegetables were certified by Organic Thailand of the DOA, ACFS’s Quality sign, Toxic Verification from Department of Medical Sciences, and the Ministry of Health’s Food Safety. Sustainable vegetables were also indicated by a “healthy food” sign. The processed sustainable foods, such as honey, were certified by IFOAM, while imported sustainable foods, such as jam and cereals, were certified by USDA. Hygienic meat was certified by ACFS’s Quality sign from the Department of Livestock. The observation in 2010 found additional types of sustainable food products in Foodland supermarket. These included cereals, canned soup, yogurt, and eggs.

4.4.3 Villa Market

Villa Market is a Thai-owned supermarket that began in 1974 with one store in the business area in Sukhumvit Soi 33 Street. In 2010, Villa Market had 14 stores in the Bangkok metropolitan area and two in Hua Hin and Pattaya (Villa Market JP 2010). Villa Market has gained a good reputation for high quality and imported food. Thai consumers can find exotic food while Americans and Europeans can find their native food. Villa Market supermarkets are mostly located in the business area to attract foreign shoppers. Although they are rather expensive, the customers are guaranteed high quality and standards. Villa Market targets customers who have a sophisticated lifestyle and are more concerned about quality than price.

Quality assurance at Villa Market is implemented by selecting reliable food producers and suppliers who meet high quality standards. As a family owned business, the entire family of the founder, from the oldest to the youngest generation, taste-tests every food item sold in the supermarket (Villa Market JP 2008). All the meat products at Villa Market are free range which, they believe, naturally brings out the best flavour. Steroids and growth hormone are prohibited to be used on livestock. Seafood and imported meats are guaranteed for freshness.

Other than high quality food, Villa Market also offers a diverse range of diets such as organic, hormone-free, wheat-free, low carbohydrate, dairy-free, low sugar (for diabetics), low fat, and low salt to satisfy customers' needs. The business development manager of Villa Market said that the customers can request special food and that it would procure or import the food. For instance, a woman whose children had anaemia told Villa Market that she had to order special food from USA and asked them to sell gluten-free food. Villa Market's drive to procure alternative products can be said to have developed from customer's needs.

Villa Market has adopted the "Corporate Social Responsibility" (CSR) principle to run their business. Community, social, and environmental issues are taken into consideration when selecting products. Villa Market started campaigning to save the environment as early as 1974 when Villa convinced its customers to bring fabric bags to shop so as to decrease the number of plastic bags used. Villa also uses biodegradable plastic bags. In addition, Villa Market has donated money for forest plantation projects.

The first impression when entering the store was however not associated with sustainability. The signs, product labels, and price reductions were written in English and were at the centre of attention, providing a sense of being in a western environment. Space was limited and not many sustainable images or wordings appeared at the shop level. The only wording that was linked to perception of safe food and environmental concerns was the sign "Organic Mixed Salad; Our Core Value", written on a board above the vegetable shelves.

At the shop level, only the Good Manufacturing Practice (GAP) certification from the Ministry of Agriculture was on display near the vegetable shelf. Other information to make consumers aware of sustainable products was not presented at the shop level.

Many organic products were sold in the supermarket, mostly imported from foreign countries. Organic rice, jam, toast, fruit and vegetables, food ingredients, sesame butter, tea, canned soups, juices, beans, and flour were available in the store.

Regarding positioning, sustainable food products were given more prominent places but the shelf spaces dedicated to sustainable and to conventional products were equal. Although some products were placed below eye-sight level, they were still easily noticeable.

Organic fruits and vegetables were separately displayed in a specific corner (Figure 4-11). The word "organic" and a description in English were prominently shown above the refrigerator. In 2008, the other kinds of sustainable products were mixed with conventional products, although by 2010 a distinct shelf for organic food products was found (Figure 4-12).

Villa Market also tried to communicate with their customers through their magazine. The organic food issue was published in June 2008 under the title "Go Green, Get Healthy". The contents inside the magazine were related to organic food; including the reasons to eat organic food, organic suppliers, the price and taste of organic food, and organic food available at Villa. The articles not only addressed the health benefits of organic food but also the environmental benefits (i.e. biodiversity and carbon footprint reduction were mentioned). The magazine was published in English as the main customers of Villa Market were foreigners.

The shop personnel in Villa Market were helpful in directing to all types of sustainable products. However, the customers did have to ask first. A discount promotion on organic avocadoes was on offer at the first and the second visit. Conventional products were also discounted. The implication was that the main objective of discount was not to encourage sustainable consumption but to sell nearly expired products.

In 2008, four sustainable food products from the checklist were available in Villa Market. These included fresh fruits and vegetables, jam, tea, and honey. In addition, Villa supermarket also offered exotic organic products from abroad. In 2008, we found organic flake rice, organic UHT milk, and organic oat milk, imported from Australia and certified by Biological Farmer of Australia. In 2010, we found more organic food in the specific corner. These included eggs, cereals, canned soups, soy sauce, and potato chips. Most of the sustainable fresh fruit and vegetables were certified by Organic Thailand standard of the DOA, ACFS's Quality Sign, Toxic Verification from the Department of Medical Sciences, and the Ministry of Health's Food Safety mark. Tea products were certified by Organic Thailand while sustainable honey products were certified by IFOAM. Other imported products such as jam, cereals, and potato chips were certified by USDA.

4.4.4 Gourmet Market

Established in 2005, Gourmet Market has become one of Bangkok's upscale supermarkets. It occupies approximately 20,000 m^2 on the ground floor of Siam Paragon Department Store in the centre of Bangkok (Gourmet Market 2008). The Mall Group, which operates Home Fresh Mart supermarkets, holds the biggest share in Gourmet Market and the product management of the two chains is run by the same team. It is obvious that the target consumers of Gourmet Market include rich people and foreigners who are likely to purchase expensive premium products. The products sold in these two supermarkets come from the same suppliers. However, the management of the stores differs, as they are targeted at different customers.

As an upscale supermarket, Gourmet gives top priority to product quality and safety. The store uses four quality marks to identify food safety and superior quality to customers (Gourmet Market 2008). The first refers to "Quality Food", which is used to designate prime-quality and toxin free food items. The second sign is "World Class Standards – Food Safety", products approved by Departments of Agriculture, Livestock or Fisheries in terms of GAP (Good Agricultural Practice) and GMP (Good Manufacturing Practice) standards. The third and the fourth signs are the food safety standards (certified by Ministry of Health and Department of Livestock). The Ministry of Health Food Safety Standard indicates that the food is free from contaminants and toxins (whitening substances, pesticides, formalin, anti-fungus preventives, borax etc.). The Department of Livestock logo signifies approval of the safety of meat.

Gourmet Market started a green marketing strategy in 2008 when it (and Home Fresh Mart) started using bio-degradable food containers for take away foods. They also replaced normal plastic bags with bio-degradable ones. This campaign not only created a good reputation of the supermarket in terms of environmental concerns, but has also reduced total business costs by 20 per cent (Gourmet Market 2008).

Figure 4-7 Organic Campaign at TOPs

Figure 4-8 Go Green- Go Organic Tab at TOPs

Figure 4-9 Label of Organic and Hydroponic Vegetables in Foodland

Figure 4-10 Product Consultation of Organic Soup in Foodland

Figure 4-11 Organic Vegetables Corner in Villa Market

Figure 4-12 Organic Food Corner in Villa Market

The supermarket highlights the freshness, quality, and safety of its products. The wording "Refresh Yourself with Freshness" was visible when entering the shop. At the time of the 2008 survey, a 'Fruit Festival 2008' had been set up at the entrance of the store (Figure 4-13). Three exhibition boards were on display showing the safety standard logos of ACFS, the Ministry of Public Health, and Gourmet Market. In addition the wording "Quality Fresh & Safe from the Farm" was prominently displayed. In 2010, they were running a new campaign, to encourage consumers to eat five portions of fruit and vegetable a day.

The information tags at the shop level were attached to the vegetable shelves, providing information about the definitions of organic, hydroponics, and contract farming vegetables. Shelves containing these vegetables were separated, and the sustainable vegetables were very prominently positioned (Figure 4-14). A poster described supermarket quality was shown at the organic vegetable shelf with the wording "Best in Quality: Organic Vegetable Fresh and Fresh from Farm". Gourmet supermarket also had a separate corner for organic products with the wording "Chemical Free, Pesticide Free, Less Energy Consumption, Environmental Friendly" above the shelf (Figure 4-15). This information conveyed to consumers that organic food is not only good for their health but also good for the environment. The sustainable food products available in Gourmet Market in 2008 included fruit and vegetables, meat, rice, coffee, tea, and honey. Gourmet supermarket also provided organic eggs, vinegar and cereals. In 2010 organic (imported) salmon, certified by the Soil Association was found. Sustainable food products were both domestically produced and imported. Most of the sustainable fresh fruit and vegetable were certified under the Organic Thailand standard, ACFS's quality sign, Toxic Verification from the Department of Medical Sciences, and the Ministry of Health's Food Safety. Tea products were certified by Organic Thailand and sustainable honey products were certified by IFOAM. Other imported products such as jam, cereals, and potato chips were certified by USDA. All pork and chicken meat sold in the supermarket was supplied by the Betagro Group under the "S-Pure" brand, the safety of which was certified by the MOPH (food safety) and the Department of Livestock. Above the meat shelves, information about hygienic and non-toxic meats could be found.

4.4.5 Golden Place

The Golden Place Supermarket was founded by King Bhumibol Adulyadej (Rama IX) in 2001. The King holds 70 per cent of shares while the remaining 30 per cent are personally held by the President of the Charoen Pokphand (CP) group. Specialists from the CP group have assisted the supermarket on administration and management. Golden Place's policy is "the King's Policy", and aims to set up a sustainable retailer, which brings benefits to both producers and consumers, with the consumers being able to buy quality and reasonably priced products and the producers guaranteed fair prices. Golden Place selects suppliers within a 100 kilometre radius of the store to reduce transportation costs and to be able to give education and advice to the farmers. Golden Place has also set up a hydroponics vegetable plantation behind the head store, the produce of which is sold in the stores.

Currently, Golden Place has 4 stores in Bangkok and one in Hua-Hin. The stores in the small business and tourist areas are open 24 hours a day, while the store in Silom District (business centre) is open between 7.00 and 20.30 (Mon-Fri) and 9.00 and 20.00 (Sat-Sun). The other two stores are located in residential area and open every day between 8.00 and 22.00 hr. Two of the stores have an SPA food restaurant, managed by the Nutrition House Company, which only serve healthy vegetarian food.

Most products in the supermarket are from the royal projects, local communities and housewives' groups. The royal projects support local communities and hill tribes in the northern region to cultivate non-chemical agricultural products. The hill tribes have been encouraged to change from slash-and-burn practices to sustainable farming. The royal project officers have transferred knowledge and technologies to the farmers to obtain standardized quality products. The most prominent food products include vegetables and fruits, corn, brown rice, chemical-free pork and chicken and Tubtim fish (Oreochromis mossambica). Most products are chemical-safe, rather than wholly organic. These are food products that contain acceptable levels of chemical substances in.

Golden Place is a small retailer, which focuses on specific consumers, much like Foodland and Villa Market. The majority of its customers are middle class people who are aware of health issues. All the food sold in the supermarkets must comply with the stores' specific quality standards.

The first impression of Golden Place was related to the King. The wording "Golden Place Supermarket of the Suwannachard Company of His Majesty the King" and the garuda (the state symbol of Thailand) were prominently presented on the front door. Sustainability images and wordings at the shop level were related to safe food and personal health concerns. The wording "Products for Health" was prominently displayed. Most of the images and wordings related to product quality, easy preparation and freshness. Several instant foods and ready-to-eat meals were visible on the shelves. The freshness of the fruits and vegetables was given much emphasis.

The vegetable shelves had pictures of the farms and farmers (Figure 4-16) who supplied toxic free vegetables to Golden Place. Details about the source of the vegetables or farm locations were available. ACFS's Q sign was also shown, to guarantee safety. The word "Chemically Safe" (Figure 4-17) was shown above the vegetable shelves and the wording "Natural Product" above the juices, tofu, and milk products. These information tools communicated messages about safety food/ personal health concerns as well as about environmental concerns.

There was no specific corner for sustainable food. Only the products from the royal projects were separated. When asking for sustainable products, shop personnel insisted that all products in Golden Place were sustainable, whether or not they were certified. Sustainable and conventional food products were mixed. Sustainable rice, fresh vegetables, food ingredients and honey were available on the shelves. Vegetarian food was being promoted as part of a 10 day long Thai Vegetarian Festival, held in September / October.

Golden Place's sustainable food products (articles identified by a label, logo, or storyline on the package) included rice, fresh vegetables, food ingredients, honey, and cereal drinks. There was a wider range of sustainable foods in Golden Place than in the other supermarkets. However, the sustainability standards of food sold in Golden Place were national standards such as DOA's Organic Thailand and ACFS's Quality sign. Only sustainable honey was certified by the IFOAM international standard.

Figure 4-13 Fruit Festival 2008 Exhibition in Gourmet Supermarket

Figure 4-14 Organic vegetable shelf in Gourmet Supermarket

Figure 4-15 Wording above the Organic Shelf in Gourmet Supermarket

Figure 4-16 Pictures of Farms and Farmers who Supplied Chemical Safe Vegetable to Golden Place

Figure 4-17 Wordings of "Chemical Safe" in Golden Place

4.5 Discussion and Conclusion

This study examined the provision of sustainable food in four specialized shops and five supermarkets in Bangkok. Participant observation was used to collect the qualitative data. This method, which involves the researcher acting as a customer in the shop, is good for capturing consumers' impressions of the ambience of a shop. The method involves the researcher thinking like a customer, rather than just to verifying a checklist. It also encourages the researcher to understand how retailers try to communicate with their customers. It not only involves monitoring what information is provided to the customer, but trying to extract the reasons behind the message. The explanation of sustainable food always points out the benefits and tries to encourage consumers to buy sustainable food. The claimed benefits can be wide-ranging; including health motives, a sense of well-being, environmental friendliness, etc. depending on the perspective of the retailers.

However, the participant observation is not so helpful in terms of quantitative analysis. So the researcher also counted the number of sustainable food products (and conventional foods, to find the per centage) and collected this data twice to do a comparison over time. While this provides useful insights it did not enable the researcher to build a more a general picture about sustainable food consumption in Bangkok. This is partly because the 2 year monitoring period was too short to identify any real trend in sustainable food consumption, but also because there were political and economic influences at play during 2008 and 2010, which might have affected consumption trends.

This section discusses the sustainable food strategies of these supermarkets and specialized shops in terms of both quantity and quality. It starts by looking at the quantitative strategies, followed by the qualitative strategies. In the final section of this chapter the quantitative and qualitative strategies of the supermarkets and specialized shops are compared.

The quantitative strategies of supermarkets and specialized shops include the number and percentages of green food products that they carried. In the four specialized shops in Bangkok in 2008, 3-4 categories of the listed sustainable food products were found. The Navilit shop had the most types of rice, because they have their own rice farm and produce their own house brand of rice products. The Thai Sabai shop provided the highest number of sustainable processed fruits and vegetables and tea products. This shop has its own farmland and produces these products under their own brands. The Suan Nguen Mee Ma and Health Me shops provided smaller quantities of sustainable food but the variety of products was higher than in the other two shops and they bought their range from a wider range of suppliers. Table 4-1 shows the quantities and percentages of sustainable food on offer in four specialized shops in Bangkok in 2008 and 2010.

The study found that, in 2008, supermarkets provided 4-5 categories of the listed green foods in their shops. Gourmet Market carried the highest percentage of sustainable fresh fruits and vegetables, jams, and honey and Golden Place carried the highest percentage of sustainable rice, beans, honey, and meat. Villa Market provided the smallest number of sustainable foods from the nine listed product categories as they are more focused on exotic imported foods, such as flour, bread, and cereals..

In 2008 most of supermarkets except Villa Market, provided sustainable rice. However, the range of sustainable rice on offer was smaller than that of conventional rice. All the supermarkets provided sustainable fresh fruits and vegetables in relatively high percentages in comparison with conventional fresh fruits and vegetables. The percentage of sustainable fruit and vegetables at TOPs was the highest; followed by Gourmet Market, Foodland, Villa Market and Golden Place. For other product categories, the percentage of sustainable foods was relatively low. For example, only one sustainable tea was found in Gourmet Market (0.54% of the total 185 tea products) and in Villa Market (1.04% of total 96 tea products). Table 4-2 shows the numbers and percentages of sustainable food items available in the five supermarkets in Bangkok in 2008 and 2010.

Tables 4-1 and 4-2 show that the range and proportion of sustainable foods available in the specialized shops and supermarkets, is mixed when comparing the two surveys. Range and proportion of some sustainable food decreased while some others sustainable food products increased, especially the items that can be considered as not basic Thai foods. Only the number and percentage of sustainable food in the Ban Navilit specialized shop decreased, and was this probably due to the political protests which, for a time closed the road in front of the shop.

Different indicators were selected to determine the quality of the provider's performances in sustainable food provision. The qualitative strategies of supermarkets and specialized shops included providing information and communication about green food to consumers. The specialized shops try to attract consumers' attention by presenting a "back to nature" feeling. The first thing that consumers in front of the Ban Na Vilit and the Health Me shops notice is pictures of vegetables, a symbol of healthy food, intended to give the impression that these shops sell healthy food. The Suan Nguen Mee Ma shop attracts consumers by highlighting its leading role in the Green Market Network. The Thai Sabai shop makes consumers feel that they are shopping in nature by decorating their shop with small trees and wooden furniture.

At the shop level, the specialized shops are more reliant on verbal communication with their customers. While some information is available on posters, pillars, and in leaflets, the shop personnel are the key informants, helping customers make their decisions about products. They are friendly and helpful in advising and directing consumers to sustainable food products. No separate corner for sustainable food is needed, since in most cases all the products on the shelves are sustainable. Only one shop separates the shelf by level of sustainability; organic, chemical-free, and chemical-safe products. The prominence and positioning of sustainable foods varied, due to the limited space within the shops. There was clearly an issue with regular availability of fresh products, since these were often sourced directly from the farmers (with no mechanism for returning out of date products). Fresh product procurement in the specialized shops was often done on a weekly basis and the availability of fresh products varied over the week. Specialized shops can also only carry relatively small stocks of dried food, as they would be responsible for all expired products themselves. Except for giving out information, there were very limited other promotion campaigns for sustainable food products in these specialized shops.

Table 4-1 Availability of Sustainable Food in Four Specialized Shops in Bangkok in 2008 and 2010 (number and per centage)

Assortment	Ban Navilit			Suan Nguen Mee Ma			Health Me Shop			Thai Sabai Shop			General Trend
	2008	2010	Change	2008	2010	Change	2008	2010	Change	2008	2010	Change	
Rice	13/13 (100%)	4/5 (80%)	↓	7/7 (100%)	13/19 (68.42%)	↓	7/7 (100%)	1/10 (10%)	↓	5/5 (100%)	7/7 (100%)	=	↓
Fruit and Vegetables	-	-	=	4/4 (100%)	-	↓	12/12 (100%)	4/4 (100%)	=	8/8 (100%)	24/24 (100%)	=	=
Processed fruit and vegetables	-	-	=	-	2/2 (100%)	↑	3/3 (100%)	1/1 (100%)	=	40/40 (100%)	12/12 (100%)	=	=
Teas	-	-	=	-	11/11 (100%)	↑	-	6/6 (100%)	↑	40/40 (100%)	24/24 (100%)	=	↑ =
Bean	-	-	=	-	1/4 (25%)	↑	-	-	=	6/6 (100%)	6/6 (100%)	=	=
Food Ingredients	2/2 (100%)	-	↓	3/3 (100%)	-	↓	4/4 (100%)	1/2 (50%)	↓	-	1/1 (100%)	↑	↓
Butter	-	-	=	-	-	=	-	1/1 (100%)	↑	-	-	=	=
Honey	1/1 (100%)	-	↓	1/1 (100%)	-	↓	3/3 (100%)	1/4 (25%)	↓	-	3/3 (100%)	↑	↓
Meat	-	-	=	-	-	=	-	-	=	-	-	=	=
Others	Milk, yogurt, sesame bars, rice crackers, instant soup	Milk, yogurt, sesame bars, rice crackers, instant soup, eggs	↑	Milk, yogurt	Eggs, balsamic vinegar, noodles, wheat grass	↑	Milk, yogurt	Milk, yogurt, eggs, cereals	↑	-	Eggs	↑	↑
Additional features	-	-	=	Coffee shop	Coffee shop, restaurant	↑	Restaurant, delivery	Restaurant, delivery	=	Restaurant, coffee shop, spa	Restaurant, coffee shop, spa	=	=
Trend during 2008-2010	Mixed			Mixed			Mixed			Expanding			**Mixed**

Table 4-2: Availability of Sustainable Food in Five Supermarkets in Bangkok in 2008 and 2010 (number and per centage)

	TOPs			Foodland			Villa Market			Gourmet Market			Golden Place			General Trend
	2008	2010	Change	2008	2010	Change	2008	2010	Change	2008	2010	Change	2008	2010	Change	
Rice	4/33 (12.12%)	12/120 (10%)	↓	7/31 (22.58%)	6/37 (16.22%)	↓	-	3/52 (5.77%)	↑	4/56 (7.14%)	8/96 (8.33%)	↑	3/9 (33.33%)	3/35 (8.57%)	↓	↓
Fruit and Vegetables	123/160 (76.88%)	66/220 (30%)	↓	57/102 (55.88%)	25/99 (25.25%)	↓	115/211 (54.50%)	75/165 (45.45%)	↓	387/547 (70.75%)	317/559 (56.71%)	↓	50/99 (50.51%)	31/127 (24.41%)	↓	↓
Processed fruit and vegetables	-	-	=	3/32 (9.38%)	3/32 (9.38%)	=	2/28 (7.14%)	3/122 (2.46%)	↓	3/118 (2.54%)	3/120 (2.50%)	↓	-	-	=	=
Teas	3/111 (2.7%)	10/101 (9.90%)	↑	-	-	=	1/96 (1.04%)	4/91 (4.40%)	↑	1/185 (0.54%)	6/298 (2.01%)	↑	-	-	=	↑
Beans	-	-	=	-	-	=	-	-	=	-	-	=	4/7 (57.14%)	-	↓	=
Food Ingredients	3/317 (0.95%)	-	↓	-	-	=	-	-	=	-		=	-	-	=	=
Butter	2/12 (16.67%)	2/12 (16.67%)	=	-	-	=	-	-	=	-	-	=	-	-	=	=
Honey	-	-	=	1/9 (11.11%)	4/25 (16%)	↑	1/54 (1.85%)	7/40 (17.5%)	↑	4/55 (7.27%)	5/54 (9.26%)	↑	2/4 (50%)	2/16 (12.5%)	↓	↑
Meat	All (100%)	All (100%)	=	1/4 (25%)	-	↓	-	-	=	All (100%)	All (100%)	=	All (100%)	All (100%)	=	=
Others	Cereals, vinegar, flour	Cereals, vinegar, flour, coconut oil	↑	Canned soup,	Cereals, canned soup, yogurt, eggs	↑	Cereals, canned soup	Eggs, cereals, canned soup, soy sauce, potato chips	↑	Vinegar	Eggs, salmon, vinegar	↑	Cereal drinks	Cereal drinks	=	↑
Trend during 2008-2010	Mixed			Mixed			Mixed			Mixed			Mixed			**Mixed**

The specialized shops communicate their product level information in different ways compared with the supermarkets. The supermarkets mainly offer certified food products, while the specialized shops focus more on verbal communication. Most of customers in the specialized shops are health lovers, often patients who need to consume safe food. Most suppliers of specialized shops are local farmers who do not have enough reason to apply for official certification. Specialized shop owners select their suppliers by visiting the farms and observing the production process. Even without certification, the food products from these suppliers are reliable. Some specialized shops such as Navilit and Thai Sabai also own farmland and they can ensure the safety of their products. As a result, the shop owners can confidently guarantee product quality to their customers. In some case, the specialized shops increase consumer trust in non-certified organic food by arranging farm visits. Site visits not only allow the consumers to witness the reality but it also create good relationships between the providers and the consumers. Site visits are often arranged by the Green Market Network, an association of specialized shops in Bangkok.

The qualitative strategies of the supermarket were also discussed at three levels. According to to the first impressions the supermarkets draw attention to sustainable food, by addressing safety and health concerns. Wordings such as “healthy” and “safety” can be easily observed when entering the supermarkets. The supermarkets in Bangkok generally try to use modern methods to attract consumers’ loyalty: TOPs and Foodland have a specific focus on consumers with a modern lifestyle who shop in supermarkets. TOPs has set up a “go green” organic campaign to express their claim to be a modern supermarket chain that cares about the environment while Foodland’s “We Never Close” claim is in tune with the lifestyle of urban consumers. Villa Market and Gourmet Supermarkets emphasize the availability of quality food in order to attract high class consumers. The first impression of the Golden Place supermarket is its close links to the Royal Project, which is taken to imply the reliability and quality of food. The Royal Project is well known for its support to hill tribe communities and helping them to use natural resources in a way that will conserve them and provide a sustainable future. This makes consumers feel that products from Royal Project are good in terms of quality and social sustainability.

At the shop level, it seems that most customers of the supermarkets are relatively rich people (including many foreigners) with a high potential for purchasing safe but expensive products. The information at the shop level is often in English, which is not widely used by Thai people. Most supermarkets offer sustainable food as an alternative to conventional products. The promotion of sustainable food is therefore crucial for them. Sustainable vegetables were positioned separately in all the supermarkets. Some supermarkets, such as Gourmet Market and Villa Market, even had separate corners for sustainable food to direct regular consumers to these products as well as to attract new consumers. Sustainable foods were presented in the supermarkets using different levels of sustainability: hygienic, hydroponic and organic. Personnel were not available in the supermarket to direct consumers to sustainable food products, although some supermarkets (like Foodland) have product consultants (PC) to communicate with consumers. However, the PCs are employed by suppliers in an attempt to increase the sales of their products (including, but not restricted to, sustainable foods). The supermarkets just provide the area for the PCs to present their products. The rental prices for these depend on the period and positioning. Some suppliers sell outright to the supermarket by paying a high rental price, but they don’t have the responsibility for expired products. The other suppliers pay a lower rental price and remain responsible for the expired products.

At product level, there is more similarity in the sustainable food products sold in the supermarkets, because they acquire these products from the same large suppliers such as Rai Pluke Rak and Doctor Vegetable (for vegetables) and CP and Betagro (for meat products).

Sustainable food products in the supermarket were generally third party certified, whether domestic or foreign. Some certified food products in the supermarket are imported from Western countries and consumers are able to notice the logo and read the information on the package. Third party certification makes the consumers trust the food although they do not know the origin of the product. The labels from IFOAM and the DOA's Organic Thailand were the most commonly found certifications in the supermarkets. International labels, such as USDA and Bio Agri-cert were found in the more upscale supermarkets (Villa Market and Gourmet Market), which import food. However, consumers are easily confused by too many logos from different certification bodies. Some suppliers put many logos on the package. Some logos were put on every product, which makes the certified products look ordinary instead of extraordinary. Too many labels on all products can reduce the trust in sustainable food.

It seems that specialized shops better provide sustainable food for the consumers in terms of quantity because they focus more on sustainable food. Supermarkets provide smaller percentages and less variety of sustainable foods. The update in 2010 shows some expansion of sustainable food in supermarkets but no growth in the sustainable food in the specialized shops. Tables 4-1 and 4-2 show that the percentage of sustainable rice substantially decreased in both types of shop. Sustainable fresh fruits and vegetables had declined in supermarkets but remained the same in specialized shops. There was no growth for processed fruits and vegetables, beans, butter, and meat, but sustainable tea was more often found in both the specialized shops and the supermarkets. Overall little changed overall in this period. Thus, it is too early to identify any trend of sustainable food provision in Bangkok or whether it is increasing or decreasing. This inconclusiveness might have been affected by the political unrest and economic crisis during 2008-2010. Nevertheless, the variety of assortments of sustainable food sold in specialized shops and supermarket has increased with a wider range of sustainable products now including cereals, cereal drinks, cider vinegar, and canned soup, which are not typical Thai food stuffs.

It is interesting to note that the typical Thai diet items, such as sustainable rice, decreased while exotic sustainable foods saw an increase. Various reasons might explain this finding. One reason is that the largest demand comes from foreign customers and some Thai customers who prefer eating western food. Another reason is that sustainable food has been replaced with nutritional food. For example, the organic rice in the Health Me Shop decreased from 100 per cent in 2008 to just 10 per cent in 2010. The other 90 per cent was replaced by germinated brown rice that contains many nutrients, dietary fibre, vitamins and gamma amino butyric acid. Since health is the often the main motive for consuming sustainable food, the definition of health in terms of safety and nutrition is attached with the products.

Overall, the specialized shops are better in providing direct communication between staff and the consumers. Official standards are not such an important strategy for specialized shops to increase consumers' trust in the safety of food, since they set up informal activities to build trust between the providers and the consumers. The consumers buy sustainable foods in the specialized shops not only because they trust the food, but also because they are impressed by the services and the friendliness of the shop personnel. The customers of specialized shops are mostly regular consumers, who buy green foods no matter how expensive they are or how long the distance to the shop. By contrast, supermarkets communicate indirectly with their consumers. Information about sustainable foods is provided by posters and official standards. Supermarkets offer sustainable food as one of several alternatives. Therefore, promoting sustainable food products takes a similar role as other 'alternative' food products, such as imported food, functional food, and special food for patients. The target group of supermarkets are consumers who are looking for convenience when shopping, in terms of variety of food, price and distance. For these reasons, it can be concluded that specialized shops are more focused on providing sustainable food to habitual or committed green consumers. However, there are not enough of these consumers to drive on overall change to sustainable food provision. The specialized shops remain a niche market in Bangkok due to the lack of sustainable food supply, management, and workforce. However, these shops are very active in offering sustainable food to consumers and are keen to encourage consumers in Bangkok to consume more sustainable food.

This chapter provides a picture of the approaches that retailers in Bangkok currently apply to promote green food consumption. The next step will be to try to find out what retailers could do to sell more sustainable food; the strategies that can be applied to increase sustainable food consumption and how these strategies might be better attuned to consumers' expectations. Thus, provider's strategies to reach a larger group of consumers in Bangkok in terms of sustainable food are explored in Chapter 5 and the reactions from consumers in Bangkok to these strategies are presented in Chapter 6.

Chapter 5 Sustainable Food Provision Strategies in Bangkok: Between a niche and the mainstream market

5.1 Introduction

Any increase in the level of sustainable food consumption in Bangkok requires both providers and consumers to change their behaviour and strategies in a more sustainable direction. Providers possess the power to influence the level of consumption of sustainable food products by offering green foods to consumers. They play a powerful role in creating and expanding the market, because they can also influence and lead other actors, such as farmers and producers, in the supply chain (Konefal 2007). Consumers also have an important role to play since they are able to make use of the green (food) alternatives offered to them by providers operating in the context of a specific system of provision for (also sustainable) food. This research focuses on both providers and consumers. It started with the providers, because they are a more stable group and it is easier to use this group as a basis for developing strategies than to approach a large number of consumers, whose attitudes may easily change. This chapter examines the strategies that food providers in Bangkok use to reach the Thai consumers with their sustainable food offers. The objective of this chapter is to answer the second research question: 'what different strategies can be used to increase sustainable food consumption?' The chapter evaluates different strategies that have been developed, and are planned, by providers. These strategies were revealed through a focus group discussion with representatives of specialized food shops and interviews with supermarket managers in Bangkok.

This chapter looks at two different groups of providers: the 'niche', specialized shops on the one hand and the 'mainstream' supermarkets on the other. These two sets of food providers were expected to have different strategies for introducing and promoting sustainable food. They also had different views about 'sustainable' food, different market shares, customers, connections with suppliers (farmers) and resources (money, knowledge and organization). It was expected that the larger retail sector would target mainstream consumers with a rather broad definition of sustainable food, use existing marketing strategies and communicate with consumers about sustainable food in an indirect, impersonal way (using labels etc.). The specialized shops, on the other hand, were expected to target a special kind of consumer, adhere to a 'deeper' definition of 'sustainable food' and approach their consumers in a labour intensive and personal way. This chapter aims to explore the characteristics of both kinds of providers, by looking in some detail at their provisioning strategies, their views on sustainability, their ideas about consumer preferences and about the considerations from consumers when buying sustainable food or not.

A focus group discussion was organized with representatives of the specialized shops in order to discuss and to assess a number of different strategies that could be applied when trying to sell green food to consumers in Bangkok. The representatives of the specialized shops showed great interest in participating in this focus group as they were already very active in promoting sustainable food and were eager to learn more about possible future strategies for increasing the provision of sustainable food. They were actively seeking to use their position to make changes in the food provision system. The managers of supermarkets in Bangkok were less independent and autonomous in their decision making power. They are employees of large corporations with a hierarchical structure and formalized strategies, including those for the provision of sustainable food products, which are determined by head offices and board committees. Due to the official (and also time) structure of supermarkets, it was not possible to organize a focus group for supermarket managers and instead they were interviewed individually.

The outline of the chapter
Section 5.2 summarizes the focus group discussion with the representatives of specialized shops. This section discusses the methodology used and presents the main results of the discussion. Section 5.3 discusses the results of the interviews with supermarket managers and provides information about their company structure, the strategies currently used and the potential they see for sustainable food provisioning in the future. Section 5.4 provides a concluding discussion, using the research questions to structure the main argument.

5.2 Focus Group Discussion with Representatives of Specialized Shops in Bangkok

This section discusses the methodology used for the focus group discussion with representatives of specialized food shops in Thailand. It introduces the participants of the focus group, explains the general procedure used for the focus group process, and reports on the main results of the discussions and recommendations put forward by the participants.

5.2.1 Focus Group Methodology

A focus group is a group brought together to explore a specific set of issues (Kitzinger 1994). Robinson (1999) defined a focus group as an in-depth, open-ended group discussion of 1-2 hours duration that explores a specific set of issues on a predefined and limited topic (Robinson 1999). The group is focused in the sense that participation involves some kind of collective activity (Kitzinger 1994) which, in this study, was the group work assignment. The participants then shared the groups' experiences and the strategies they devised to sell more sustainable food with the other participants in a plenary session.

Focus groups were first used in marketing research in the 1920s (Kitzinger 1994; Robinson 1999) and have continued to be a popular method of data collection (Kitzinger 1994; Stewart, Shamdasani et al. 2007). The method allows space for interactive discussion (Stewart, Shamdasani et al. 2007) and can produce concentrated amounts of data on the topic of interest (Morgan 1997). The focus group approach is a highly efficient technique for qualitative data collection and the group dynamics are helpful in focusing on to the most important topics (Robinson 1999). According to Kitzinger (1994), the focus group method is ideal for inductive approaches that seek to generate concepts (Kitzinger 1994). In light of these benefits, this research used the focus group method to collect data from representatives of specialized shops in Bangkok to generate strategies that would help increase sustainable food consumption.

Calder (1977) categorized three different types of focus group: exploratory, clinical, and phenomenological. Each approach is appropriate for collecting specific types of information (Vaughn, Schumm et al. 1996). The exploratory approach can be used to collect descriptive information in order to explain and understand constructs, generate hypothesizes, and to test initial research ideas (Calder 1977). This approach is often the first step before more ambitious efforts (Vaughn, Schumm et al. 1996) and is normally followed by other qualitative research (Calder 1977). The clinical approach can be used to detect the real causes of behaviour (Calder 1977). This approach can be used when researchers need to explore areas which are not open to self-reporting or direct observation (Byers and Wilcox 1991). Since each individual has self-defence mechanisms, real-life behaviour often cannot be extracted from self-reporting. The clinical approach is useful in obtaining information for clinical judgment and therapy (Calder 1977). The phenomenological approach is used to observe the natural attitudes of focus group members (Calder 1977). These ‘natural attitudes’ refer to the common behaviour that people have been socialized into, exhibiting shared life experiences (Fern 2001). This study employed the exploratory approach to generate ideas from the owners of specialized shops about how to increase sales of sustainable food. The rest of this section describes the participants in the focus group and the reasons for selecting them. The method of data collection and procedures of the focus group discussion are also explained.

5.2.1.1 Participants in the focus group

The target number of participants for this focus group discussion was set at fifteen. As Merton et al. (1990) suggest, the size of the group should not be so large as to be unwieldy or to preclude adequate participation by most members, nor should it be so small that it fails to provide substantially greater coverage than an interview with a single individual. With some fifteen members, everybody can share their ideas with the other participants during the sessions. A second important reason for having this number of people in the focus group was to allow a division of the participants into sub-groups for a specific assignment. With fewer participants, this group work could not be arranged. Having a group that is too small also brings the risk of not having enough varied inputs - in terms of different points of view - and the possibility of a couple of individuals dominating the discussion. Most of the participants in the focus group were from specialized food shops in Bangkok (see chapter 3 for a discussion on these retailers), but also included a few participants with different backgrounds: a supplier to these shops, a restaurant owner and an individual interested in opening a specialized shop in the near future.

To recruit the participants, the researcher participated in the monthly meetings of the ‘Green Market Network’. During one of the meetings, the researcher informed the group about a plan to set up a focus group discussion with representatives of the specialized shops in Bangkok and invited them to participate. Some owners, who were looking for ways to improve the sales of their products, expressed an interest, while others were too busy to join in. Because the Green Market Network could not deliver the required 15 participants, the researcher approached a number of representatives of specialized shops on an individual basis to obtain the desired number of participants. The list of participants is provided in Appendix 2.

5.2.1.2 Procedures used for the focus group discussion

The focus group discussion was carried out on November 11, 2008 at the Ruen Roi Chanum Building in Bangkok and lasted three hours. Many of the providers were familiar with this place, as many monthly meetings of the Green Market Network were held here.

The meeting started with the registration of the participants and the handing out of documents, materials and name tags. The name tags were coloured (red, green, and yellow) to denote which sub-group each individual would be a member of. The participants sat in a U-shape to allow everyone to see each other and have equal opportunities to share ideas.

There were two moderators. The first was a technical moderator with a background in sustainable food provision. She had an in-depth knowledge of sustainable food provision in Bangkok and possessed the knowledge and skills to facilitate the discussion. The second moderator was the coordinator of the ‘Green Market Network’, who was known by almost all the participants. This moderator helped create an informal atmosphere while encouraging the participants to share ideas. Five assistants were in charge of technical tasks like taking photographs, video recording, taking notes and serving coffee.

The group began with participants introducing themselves. After that, the researcher introduced the PhD project and the objectives and expected outcomes of the meeting (see also Appendix 3). The definition of sustainable food was also clarified to avoid misunderstanding and the sequence of programme was explained. The focus group meeting was divided into four sub-sessions: (1) a general (plenary) discussion about sustainable food provision and consumption in Bangkok, (2) a presentation by the researcher about provision strategies for green food in some other countries, (3) a phase of group work with teams working on an assignment and (4) plenary discussion. Each session had a specific purpose. Stewart (2007) describes the many types of focus group questions. These include: main research questions, leading questions, testing questions, steering questions, obtuse questions, factual questions, feel questions, anonymous questions and silent questions. Each type of question has its specific purpose and is appropriate to a particular situation. For example, main research questions are used to focus discussion on issues directly related to the purpose of the session, while leading questions are useful for moving a discussion toward deeper meanings (ibid). At first, we asked leading questions about sustainable food in Bangkok to lead the participants towards the topic. Later, main research questions were used for the group assignment, which aimed to develop strategies for selling more sustainable food. A short description of the three phases is provided below.

(1) Discussion about sustainable food consumption in Bangkok
First, five leading questions (what, when, where, why and who) about sustainable food consumption were written down on large sheets of paper which were then stuck on the wall. The participants were encouraged to write their answers on the paper. The main purpose of this session was to open up a discussion among participants about the topic. Thai people are rather reserved about expressing themselves in public and starting with a written exercise helped participants to become more acquainted with each other. Participants had a chance to think about these questions beforehand as they had been included in the letter of invitation. As a result, every participant was able to answer all the questions in the allotted time (about 15 minutes). When every participant completed answering the questions, the researcher and moderator summed up their different responses.

(2) Presentation of strategies used by other countries
The main purpose of this phase was to inform the participants what was meant by strategies and to give a broad idea of the strategies used in other countries. Most of the strategies discussed had been observed by the researcher while studying in the Netherlands. Some strategies were obtained after visiting the websites of supermarkets.

Nine main strategies for convincing consumers to buy more sustainable food, mainly applied in other countries, were discussed. The first strategy is the use of a sustainable symbol/logo. Many shops display an organic logo in front of the shop, so that consumers know that sustainable food is sold inside. In the Netherlands, the words ‘EKO’ or ‘biologisch’ are shown at the entrance of a shop where sustainable foods are offered. The second strategy is setting up a specific corner in the shop for sustainable food. This strategy is used in supermarkets that sell both conventional and sustainable foods. A separate corner for sustainable food helps consumers to easily find the sustainable food products which are gathered at one point. In the Dutch Supercoop supermarket, consumers will find a corner that is painted green, where all the products are organic. The third strategy relates to the positioning of products in the shelves. In this strategy the providers place sustainable food products at eye level, so the customers can more easily observe and select them. The fourth strategy is to offer a variety of sustainable food products in one shop, so as to provide one-stop shopping. For example specialized shops in Arnhem (in the Netherlands) provide a wide range of organic foods including meat, fruit and vegetables, dairy products, baby food and baked goods. Non-food products such as cleaning materials and cosmetics are also available. Thus, consumers can find all the sustainable products they need in one shop. The fifth strategy is to send out magazines or pamphlets to the customers. These magazines include articles about sustainable food, their price and special promotions. Some magazines include coupons that customers can exchange for samples of (or discounts on) sustainable foods. The sixth strategy is to provide recipes to give consumers inspiration about new ways to cook sustainable food. The seventh strategy seeks to educate consumers by providing information about sustainable food including: the levels of sustainability, standards and the benefits of sustainable food. The information can be disseminated directly through shop personnel and indirectly through folders and websites. The eighth strategy includes price reduction. As most customers are attracted by discount items, a reduced price will definitely increase the sales of sustainable food. The last strategy involves bonus cards for customers to collect points that can be exchanged for a price reduction or a gift.

(3) Group work

This presentation of strategies from other countries was intended to give participants an idea about the strategies that might be appropriate for urban Thailand. The participants were divided into 3 groups. Each sub-group consisted of five participants, to allow each participant the opportunity to share his/her ideas. These smaller groups were better suited for generating in-depth information (Greenbaum 1998) and give each individual more time to express their views (thereby increasing the data generated) (Greenbaum 1998). It was also hoped that the results from the three sub-groups would be more diversified than one result from the full group.

Each group was assigned the task of developing strategies that food providers in Bangkok might use to reach a wider group of Thai consumers. One assistant was assigned to each group to facilitate the discussion. The group work took about 30 minutes. After that, a plenary session was held to present the results of each group and to construct strategies.

5.2.2 Results of the Focus Group Discussion with Specialized Shop Representatives

The results are discussed in two sections. First, the results of discussions about sustainable food consumption in Bangkok are presented (Section 5.2.2.1). Then, the strategies developed by the groups are presented (Section 5.2.2.2).

5.2.2.1 Sustainable Food Consumption in Bangkok

The discussion about sustainable food consumption was intended to introduce the participants to the topic and to create an informal atmosphere and to encourage the participants to contribute ideas to the group work session. The providers' perceptions about sustainable food consumption were investigated by asking about five aspects of sustainable food. What is sustainable food? Where is sustainable food sold? Who consumes sustainable food? When do consumers decide to purchase sustainable food? And, why do consumers decide to consume sustainable food? Their responses to these questions are presented below.

(1) What is sustainable food?
Participants were asked what kinds of sustainable foods are available in Bangkok. The owners of specialized shops viewed sustainable foods as describing all kinds of non-chemically produced foods, which are safe for human health. Certification was not an important issue for the specialized shops, as long as they knew the sources and were satisfied that the production process was safe. The types of available sustainable food products in Bangkok they mentioned include rice, vegetables and fruits, cereals, and dairy products. Sustainable vegetables and fruits were generally cultivated by local farmers using natural, non-chemical farming methods. Nationally certified organic cereal products were supplied by one company. Non-certified organic milk and yogurt were produced by one company and supplied to green shops and households by a delivery service. Non-certified eggs were supplied by one small scale producer. Meat products were not identified by the participants. The discussion showed that the main consumers at the specialized shops in Bangkok were vegetarians and so there was little or no demand for sustainable meat products.

(2) Where is sustainable food sold?
This question enquired about the places where sustainable foods are on offer in Bangkok. The participants identified 29 places where consumers could buy sustainable food, mentioning specialized shops, supermarkets, restaurants, producers and wholesalers. Among those mentioned were the Royal Project shops (Doi Kham) and the Buddhist vegetarian shop (Santi Asoke). These two shops produced and sold food products under their own brands without external standard certification. The vegetarian restaurants were also included as places where sustainable food was sold.

All participants agreed that the number of sustainable food shops in Bangkok was still very small. One participant said specialized shops were at a disadvantage as they only carried a small variety of food and lacked facilities. A participant from the Suan Nguen Mee Ma shop said that she got complaints from customers about the lack of parking spaces: the nearest ones were a long way away and some customers came by taxi or bus. The participant from Dok Mai Wan shop, located in a residential district of Bangkok found that the residents in her area usually went to fresh markets and supermarkets. She had few regular customers and although she had been open for half a year her income was not enough to pay for the expenses of opening the shop, food stock, shop personnel, electricity, etc.

(3) Who consumes sustainable food?
This question invited the providers to think about their regular consumers. These were mostly people with health concerns. One participant said that consumers often started eating sustainable food when they got ill, as the Thai aphorism says: ‘When you see the coffin, you will cry’. This aphorism refers to people who would start taking care of their health only after they get ill. The majority of sustainable food consumers were patients or people with patients in their family. Others included families with young children. Sustainable food was also gaining popularity among some company workers and some young people were consuming sustainable vegetables because of beauty concerns.

(4) When do consumers decide to consume sustainable food?
This question asked the providers to think about when consumers decide to consume sustainable food. They concluded that this happened when people understood the benefits of doing so. Knowledge of the adverse effects of eating contaminated food was another factor. People often started eating sustainable food when they developed health problems, as there were many stories of patients who had recovered by consuming sustainable food. Some

sustainable food (e.g. organic herbs) was also used as medicines to cure sickness. Some of these recovered patients have written pocket books that encouraged readers to start eating sustainable food. Consumers were also influenced by the price of sustainable food. The participants thought that more consumers would buy sustainable food if it were not too expensive.

(5) Why do consumers decide to consume sustainable food?
From the providers' perspective, most consumers decided to regularly eat sustainable food because of health reasons, especially when they had a serious illness like cancer. Some patients sought alternative medicines and believed that sustainable food could cure illness. Some consumers wanted to avoid contaminated food from conventional markets. It was concluded that health awareness is the major reason for consuming sustainable food. As Bangkok people are increasingly concerned about their health, food businesses can take advantage of this and sell more sustainable food.

A list of questions and answers is shown in Appendix 4.

5.2.2.2 Results of Group Work: Developing Strategies
The participants were randomly divided into three equally sized sub-groups and each group was assigned with the task of developing strategies to expand the market for sustainable food. Between them they identified four major strategies, related to: the target groups of consumers, information provision, connecting providers and consumers, and price. Some of these strategies were already applied by some of the specialized shops, while others were beyond their capacity and would need support from other stakeholders, such as the government or food producers.

The specialized shops recognized the need to increase the number of consumers of sustainable food. At present sustainable food is mostly popular among patients and old people who have health problems and want to keep healthy and recover from illness. This locks sustainable food into a small niche market for a limited group of people. The participants thought that sustainable food is good for everybody and it is important that all age groups keep themselves healthy, not just when they become ill. But promoting sustainable food to, say, teenagers requires a different approach. It needs to be done in a more fashionable way. For example, teenage consumers could be made to believe that consuming sustainable food is trendy and it is unfashionable to consume conventional food. This could be done by developing brand names. Young people are attracted to well-known brands such as: Coca-Cola, Pepsi, Lays, etc. If the producers of sustainable food could create a brand and establish it in the market, the sale of sustainable food would increase among all age groups.

Information dissemination is one way to improve the sale of sustainable food. This involves giving consumers more information about the benefits of eating sustainable food. The specialized shop owners thought that the health issue was the most important aspect in Bangkok. Consumers respond more to the health benefits of sustainable food than to its other benefits. Information dissemination to the consumers could be done via magazines, television, newsletters, and websites, which most Bangkok residents have easy access to. Television seemed to be the best source of information because it can be accessed by most consumers and the message presented in various creative ways such as short advertisements, documentaries and cartoons. However, the specialized shops cannot afford to pay for television broadcasts and thought that the government should assist them in promoting the consumption of sustainable food by sponsoring short advertising spots on free television channels. The specialized shops have formed a network called the “Green Market Network”, which was proving useful in bringing together green shops. The network exchanges knowledge, inspects products and aims to set common standards within the group. The network also communicates with its members about sustainable food products, labelling and standards.

Participants felt that they needed to better communicate the other strengths of green shops (delicious food, good service) to consumers. They also thought that they were bound to only sell high quality food products, and to consume these themselves so they could communicate about the benefits with the consumers. This allows the providers to share their own experiences with consumers, making their communication more trustworthy.

Certification is another method identified to guarantee the safety of products on the shelves. Standard certification gives a seal of authority that is more reliable than a storyline in the advertising or on the package. Publishing information will also increase the number of sustainable food consumers. Raising awareness of social sustainability could also be used to promote sustainable food consumption. Many consumers are willing to buy products made from a local community such as OTOP[6] because they want the local people to also enjoy a good quality of life. Making consumers aware of these significant advantages would encourage them to change their shopping and eating behaviour and at least decide to try sustainable food.

Connecting providers and consumers could be achieved by developing more distribution channels to make things more convenient for consumers. There is need for more outlets for sustainable food, and this could be realised by expanding the ways of selling sustainable food. The specialized shops claimed that the Green Market Network was already finding new ways of selling sustainable food and attracting more consumers. The Green Market is regularly open on Thursdays at the Regent House Building in the business area of Bangkok. Specialized shops and restaurants bring their food products to the ground floor of the office building to sell. The consumers at this open market include people working in the building and its vicinity, a target group with a high potential to buy sustainable food. This is the first open market set up by the Green Market Network, which was looking for possibilities to open more of such markets in the future. At the moment, only regular consumers go to the specialized shops. This strategy is a way of actively finding new customers and expanding the customer base. Business at the market was slow in the first couple of weeks, but increased as the word spread and it now attracts a core group of regular consumers, some of whom go to buy food at green shops during the week.

Delivery services was another strategy discussed in the working groups. The participants proposed that a delivery service should offer different types of food and be frequent enough to accommodate consumers who did not have the time to buy good food. The specialized shops also offer gift baskets for special occasions like the New Year, birthdays, and births. These gift baskets not only emphasize the value of sustainable food but also widen the consumer base. In Thailand, younger people normally provide gifts to the elders on special occasions to show their respect. The specialized shops see the potential for giving a sustainable food basket, which shows that young people care about the health of their elders.

[6] OTOP (one Tambon - one product) refers to local products produced from local materials in the community aimed at improving incomes in village communities to help eradicate rural poverty

Besides providing more distribution channels, some specialized shops also set up activities with their customers. These activities are related to health and safety issues and likely to benefit both the shops and the clients. Farm visits are an example. When consumers visit a sustainable farm, they see how sustainable foods are produced and this can strengthen their trust. Another activity proposed by the specialized shops was an informal meeting to discuss issues of common interest. One specialized shop owner had started a forum to share experiences with taking care of cancer patients. Some former patients and relatives of current patients attended the discussion. The specialized shops also thought other activities, such as yoga and cooking classes, might attract more consumers.

On the price of sustainable food, the participants thought that the high price of sustainable food made consumers reluctant to change their buying behaviour and move towards sustainable food. It is obvious that the price of sustainable food is higher than for conventional products and that discounted items will attract consumers. However, the participants argued that sustainable farmers had higher labour requirements and that this meant that sustainable food was more expensive. The participants thought that government agencies should support farmers who are involved in sustainable farming. Such support could involve: acknowledging the importance of sustainable farming, providing national standards and certification for free or for a low cost, as well as promoting sustainable food to Thai consumers. More awareness about the benefits of consuming sustainable food would increase sales and production and thereby the economies of scale would bring down the prices.

In conclusion, the specialized shops have developed and are serving a niche market for sustainable food, doing the best they can to provide sustainable food from reliable suppliers to a core group of consumers. To expand their reach they are working together in the Green Market Network. They are expanding their markets by opening outlets in hospitals and meet with selected groups of consumers: patients and health conscious consumers. They are looking to develop more convenient and creative ways of buying sustainable food, such as deliveries and gift baskets. Other possibilities for improving their services are currently beyond their competences and would need outside help to be further developed. More publicity should be given to sustainable food and make it well-known to expand the demand for it. The government should launch advertisement campaigns in the media to educate people and help them recognize sustainable food and its benefits. The government should extend the national organic regulations to a wider range of food products. Moreover, the price of sustainable food could be reduced by providing subsidies to organic farmers.

5.3 Supermarket Interviews

5.3.1 Methodology

Four in-depth interviews were carried out with representatives from supermarkets in Bangkok. In-depth interviews involve a discussion between a trained moderator and a qualified or experienced respondent, selected because of their extensive knowledge about a specific topic (Greenbaum 1998). Three reasons drove the choice of in-depth interviews for investigating supermarkets, instead of opting for the focus group method. First, the supermarket managers were unwilling to take part in a focus group because of privacy concerns. Unlike specialized shops, which seek to cooperate within their group, supermarkets develop their own strategies and are in competition with each other. It is not in their interests to share or reveal their strategies with other supermarkets. Second, one-on-one interviews could provide more in-depth information than other forms of qualitative research because concentrated time is spent with each interviewee (Greenbaum 1998). Third, the supermarket managers were required to be present at their workplaces and inviting them outside for a focus group proved impractical.

The interviews covered upmarket, multinational and national supermarkets. Initially, the management of ten supermarkets in Bangkok (Table 3-3 in Chapter 3) were contacted through a letter explaining the research and its objectives and requesting an appointment for an interview. Four supermarkets; the Mall Group (operator of Gourmet and Home Fresh Mart supermarkets), Carrefour, Foodland, and Golden Place responded positively to the invitation. Appointments were subsequently made in accordance with the availability of the interviewees.

The issues to be discussed in the interviews were included in the letter; allowing the management of the supermarkets to identify the most appropriate person to answer the questions. The list of interviewees and the details of the interviews can be found in Appendix 5. The attached questions, also allowed the interviewees the opportunity to prepare their answers, which shortened the interview process. The interviewees also had the opportunity to prepare additional information before the interview. The discussion in the interview consisted of questions about company policy with respect to food safety, general strategies for sustainable development, sustainability at the shop level, the development of sustainable development strategies in the past and in the future, and the obstacles to expanding the sustainable development strategies. The list of questions is included in Appendix 6.

5.3.2 Results of Supermarket Interviews

This section provides the results of the supermarket interviews with respect to their structure, sustainability profile, sustainability in the shop, and future development.

5.3.2.1 Supermarket Structure

The structure of the supermarket chains was more or less the same in terms of them all having a pronounced top-down structure. Although they all had a specific department responsible for sustainable development, the policy for this was set at the HQ or board level. The department for sustainable development could usually suggest initiatives but this always needed to be approved by the board committee prior to implementation.

Since the target customer of each supermarket is different, each supermarket has a different profile. While upscale supermarkets like Gourmet Market and Home Fresh Mart and national supermarkets like Foodland and Golden Place mostly focus on quality, a multinational supermarket like Carrefour emphasizes competitive prices. The structures and profiles of the four supermarkets are summarised below.

The Mall group is a Thai company who operates six Home Fresh Mart supermarkets in the Mall Department Stores and two Gourmet Markets in Siam Paragon and the Emporium. Both Home Fresh Marts and Gourmet Markets are upscale, luxurious, supermarkets. The Mall Group is managed by an executive board, which includes a director from each department. Normally, the sustainability policy of the supermarket is initiated and proposed by the Director of the Product Management Department. Once the executive board has considered and accepted his proposals, the strategies are passed on to the operation level of the supermarket stores.

The Carrefour group originates from France and is now a worldwide company. The structure of the Carrefour group is top-down, from the French headquarters to Carrefour in Thailand. There are clear sustainability targets at the group level. Country level management is asked to give inputs into the group's annual sustainable development report and also to report on their contribution in achieving the general sustainable development targets of the group. During the interview, the QA manager showed me a table with different targets. For each target there was a detailed description of the activities and goals and a column indicating whether Carrefour Thailand could implement these goals/targets. For example, the use of FSC-certified wood for all garden sets sold in Carrefour is not being implemented in Thailand due to a lack of FSC-certified wood. Other targets, like energy-savings of 30 per cent by 2020 were going to be implemented.

Foodland is a small, national, retail-chain with 11 stores in Thailand. Its sustainable development policy follows the government initiatives, but intends to go beyond the minimum requirements. The structure of Foodland is basically top down from the management level, at headquarters, to the 11 stores. The Quality Assurance/ Quality Control (QA/QC) department is in charge of food safety standards and controls safety at the factory-level. Some 10-15 people are involved in the QA/QC department, which is under the managing director (MD). QA/QC can propose sustainable initiatives to the MD who decides whether to accept them or not. Foodland obtains support from the US embassy in Bangkok which gives regular training about food safety and food standards. In return, the US embassy encourages Foodland to import food products from the US. Many imported food products are available at Foodland. According to the Produce Department Manager's site, customers can find all the ingredients to prepare Western, Japanese, or Indian food at Foodland.

Golden Place is another national supermarket. It is a model that offers producers, consumers and retailers a new approach to food. The formula was inspired by the King and is expressed in the key words '*sufficiency*' and '*being fair'*. This means that the retail chain is different from other retail chains in its lack of ambition to grow, to make (large) profits or, in short, be like the rest of the world. Instead, the basic philosophy is about being fair to the producers (no charge to the farmer when he/she steps into the system), being fair to the retailer (no excess profits are allowed) and being fair to the consumer (serving him or her guaranteed good quality and safe products). All customers shopping at Golden Place outlets know that it is a special place and a special chain, under the protection of the King. Thai consumers have a basic trust in the Golden Place chain, which is recognized as a special shop. The Golden Place was only recently launched and has only four outlets in Bangkok, with a network of about 500 producers/farmers who directly deliver their products to the retailer. Of these 500 producers, about 80 per cent are estimated to be small and medium size, while only 20 per cent are bigger farms. Golden Place has a management team which includes a vice-president and committees in charge of setting the company's goals and policies. Then, the policies are passed on to the operations department which deals with planning and development, marketing, and procurement.

5.3.2.2 The Sustainability Profile of Supermarkets

The sustainability profile of most supermarkets emphasizes quality and food safety but the level varies between them. This section discusses the profile of each supermarket, their marketing strategy and how they try to attract specific groups of consumers to shop at their store.

The sustainable development profile of the Mall Group focuses on *quality* in terms of *safety*. The general manager of the procurement department said that: ‘consumers come to the Mall group because they trust in the quality of the products. They believe that the Mall has selected good things for them’. The Procurement Department visits the farmers to observe their operations. If the production process is safe, a yearly contract will be signed to commit the farmer to supply a certain amount of produce. However, the farmers themselves are responsible for keeping to the standards. Other food products are supplied by companies who rent a shelf in the supermarket. These food products are sampled and monitored for contamination and if the contamination level exceeds the national standard, the rental contract will be cancelled immediately. The Mall group is constantly selecting and changing its suppliers. Consumers do not take the brand of the supplier into account but trust the Mall Group’s selection. ‘Whatever is sold in the supermarket has already been proven good for the customers’, said the General Manager of the Procurement Department. The target customers of Home Fresh Mart supermarkets are mostly: *middle class and above* and the target customers of Gourmet Market are exclusively *premium consumers*.

By contrast, the target customers of Carrefour include everybody: as their motto says: ‘choice and quality for everyone’. Carrefour emphasizes: *price, an enormous area, ‘everything-under-one-roof’,* and *service*. The product range in Carrefour Thailand is different from Carrefour in other countries because of the difference in local tastes. Carrefour provides three categories of products with different levels of quality; quality, high quality, and premium quality, at different prices to meet the demands of all customers:

- Carrefour Premium = best performance
- Carrefour House brand = quality similar to that of leading brands
- Carrefour big-saver = acceptable quality levels.

As for the sustainability goals of Carrefour Thailand, there is an emphasis on food-safety. This is approached in terms of an overall quality policy which is actively pursued by the company. It follows a companywide quality policy and its own quality line is judged to be more realistic and effective than only working with categories like ‘organic’ or ‘hydroponics’ since these categories are only relevant for premium consumers who are willing and able to spend 40 to 100 per cent more for a product. The Quality Director of Carrefour Thailand indicated that the Carrefour quality line takes more than just safety into account. It also includes, for example, the use of GMO-free products and is working towards 100 per cent sustainable palm oil. This is being realized by visiting the palm oil production sites and processing plants and trying to develop certification systems to ensure sustainability. The Quality Director of Carrefour Thailand indicated that their Thai consumers are only in the first stage of developing awareness about environmental and climate issues and that most of the customers buying organic are Japanese. He estimated that only one per cent of Thai consumers would be able to explain what a carbon-footprint or a carbon emission scheme is. Because of this general lack of awareness, Carrefour Thailand sometimes initiates sustainability policies without explaining them to consumers. As an example, he mentioned the use of biodegradable packaging devices, an internal company policy. The experiences with plastic bags in the shop have shown that it is difficult to change the mind-set of Thai consumers in the short term. When it comes to issues of health and diet, there is a general interest and reasonable awareness among Thai consumers. Carrefour Thailand offers energy saving light bulbs under the company brand-name (to offset global warming). Electric appliances are energy-labelled, but this Thai label is not very precise or discriminating, since almost all appliances with the label have a top score. The Carrefour group aims to achieve higher sustainable development targets every year. The targets are realistic and progressive. At the time of the interview much effort was going into improving the green performance of the retailer as a retailer. The company constantly checks its energy consumption and looks for possible improvements, i.e. by using closed energy-boxes in the shops to store frozen products and by replacing the lighting devices with energy saving variants. Carrefour also aims to reduce waste and this is translated into a policy to reduce the number of plastic bags used in the shop. This is not an easy target in Thailand, since customers do not bring their own bags to the shop and want all the products packed in separate bags. There are efforts being made to educate the consumers, but so far, with only moderate success.

The sustainability performance of Golden Place was not well articulated. The project was initiated by the King, who has promoted sustainable development for more than 30 years. Many of the King's projects aim to help hill tribes and marginal people to farm more sustainably. As a result, Golden Place has an image that is strongly associated with environmental and social sustainability. Customers of Golden Place believe in the quality of the products in the supermarket because they believe in the King. The target consumers include the middle and upper classes. 'We serve the demands of B+ consumers', said the Deputy Managing Director. Most Golden Place customers are regular customers. The profile of the chain emphasizes the *sustainability* of producers, supermarkets and consumers. The Deputy Managing Director of Golden Place explained that the producers sell their products to the supermarket for a fair price. The supermarket must be self-supporting but does not need to make an excessive profit, because the aim is to make Golden Place a model of non-capitalistic retail outlet where consumers can buy quality products at a reasonable price.

Foodland is also a national supermarket, although they have a different business strategy than Golden Place. While Golden Place aims to act as a model, Foodland is in business to make money. The target customers of Foodland include a mix of local people and foreigners. Foodland's specializes in exotic foods, many of which are imported. Their sustainability profile focuses on *quality, good service and reasonable price*. Foodland is a small retailer that is largely reactive in terms of its sustainable development strategy. They follow and support government initiatives and participate in government projects (i.e. not using plastic bags) but do not actively work on developing their own sustainability profile.

5.3.2.3 Sustainability at the Shop Level

Each supermarket presents sustainability in its stores in different ways. Some of them educate consumers by providing information about sustainable food. Others believe that their customers are already well informed and rather focus on certified food products and labelling. This section looks at how sustainability is addressed in each supermarket and what strategies they use to give customers confidence in sustainable food.

The Mall Group focuses on certified food, since their well-educated consumers usually look for certified food labels on the shelves. They said that their customers take into consideration standards and labelling before making a decision to buy. As a result, every food product sold in the Mall Group's supermarkets must be certified either by national or international standards. The Mall Group also shows that they are helping local communities, by doing contract farming with local farmers. Local farmers are educated to follow standards in order to be able to supply standardized food products to the Mall. The Mall Group also provides information about organic food to consumers by separating the organic food corner from non-organic products. They display explanations of the benefits of sustainable products in terms of health and the environment. The Mall provides sustainable vegetables and fruit, rice, cereals, tea, honey, vinegar and plans to provide sustainable meat and seafood in the near future to meet consumer demand. Furthermore, shop personnel are available to assist and give suggestions to consumers. However, they only give suggestions when a customer asks. This year The Mall will try to be more active by providing a personal health consultant in the supermarket to help health conscious consumers.

For the Carrefour group, sustainable development has been an issue for many years. Carrefour has a sustainable development policy that is applied to every subsidiary supermarket around the world. Carrefour Thailand try to do as good a job as possible in meeting these requirements but claim that the current conditions in Thailand are different from Carrefour's home base –in France - both with respect to the awareness of consumers and the less organized and developed character of sustainability policies in Thai food chains. The QA manager of Carrefour Thailand showed the availability of green products at the shop, shelf and product level. These included fresh fish labelled with the Carrefour quality label, light bulbs, electric appliances, rice, cereals, eggs, organic and hydroponic vegetables. These include batch numbers which show the source of the food. This allows consumers to be confident of the safety of the food sold in a Carrefour supermarket.

Foodland is a small chain and relies mostly on direct communication between shop personnel and the consumer to promote sustainable development. The company policy is that shop staff should interact with consumers as soon as they enter the shop. Most customers of Foodland are regular customers, so the staff can develop a long term relationship with them. Also, the consumers buy sustainable food because they trust Foodland's reputation, so certification of standards is not required. The sustainable food available in Foodland includes vegetables, fruit, rice, cereals, jam, juice, and yogurt. They expect to sell more sustainable products in the future. The range of sustainable foods sold depends on consumer demand and Foodland is open to requests made to the store manager or by email. Foodland has developed its own brands, such as meat products (Butcher's choice) and baked goods to ensure high levels of quality control in the production process.

Golden Place does not make as much effort as the other supermarkets to sell sustainable food products. Since they were created as an ethical model for retailing, they do not use any special marketing method or strategy to sell their products. Their customers know about the safety of the food in the supermarket. Because of the overall and overwhelming trust that consumers invest in the chain and its staff, Golden Place feels there is no direct need for strict labelling of specific products in the shop. There is some information at the shop level, but this is to explain the relationships with the farmers behind the Golden Place shops. The products themselves simply meet the requirements of the national Thai labelling system. In practice, the health, safety and environmental policy of Golden Place comes down to giving instructions to farmers who enter the system, about how they can live up to the expected norms of quality and safety. All products brought into the shop are checked for chemical contamination. Golden Place also provides information to general consumers in a reactive way. For example they will host school excursions to the store upon request. However, at the moment, they are not actively involved in setting up exhibitions or demonstrations.

5.3.2.4 The Supermarkets' Plans for Sustainable Development and Sustainable Food Provision

Supermarkets in Thailand, as elsewhere in the world, realise that they can only maintain their market share by providing sustainable food in their stores. This section describes how supermarkets plan for developing their future sustainability policies, what they intend to become and the obstacles they face in becoming a more sustainable provider.

The Mall Group has realized that the number of elderly will increase in the future and since the elderly are very concerned about health issues this will increase sales of sustainable food. The elderly also have the purchasing power to buy sustainable food. So, the Mall Group intends to become more active in providing information to target consumers such as the elderly and patients. They have started by providing a health consultant's corner in the supermarket. They will also expand their range of organic products. The Mall Group believes that it is currently the number one retail outlet in Thailand in terms of sustainable food.

Carrefour plans to gradually improve its performance in a number of areas, by sourcing sustainable palm oil, maintaining a GMO-free policy, energy-saving and stocking more products (including organic and hydroponic ones) under its quality control system. According to a QA manager, the main obstacle for a further increase in the level of green provisioning in Thailand is the lack of certification systems, procedures and organizations within the Thai food-sector. Unlike in Europe, in Thailand it is very difficult to get labelling and certification systems and procedures established. There is a lack of knowledge, initiatives and regulations compared to Europe. The QA manager of Carrefour Thailand (a former employee of Unilever) made this claim based on years of experience in the Thai food-chain business.

Golden Place started from the concept of sustainability. The image of Golden Place draws on the embeddedness of safety and sustainable development in the royal projects. Consumers who are aware of sustainable food regularly shop at Golden Place, which does not advertise as they see this as contrary to their mission. It plans to provide more information on their website in the future but at present it does not actively provide much information to their customers. It is not afraid of market competitors, who are increasingly developing a sustainable food presence and would be happy if other supermarkets increased their range of sustainable foods and increased the sustainability they offer. As a model retail outlet, they do not desire to expand the number of stores or increase their profits. 'We provide a lead as a moral retailer', said the Deputy Managing Director.

As with other supermarkets, Foodland has slightly increased its range of organic vegetables over the past five years (by approximately 10 per cent). They believe that the demand for sustainable food will continue to increase in the future. Most of Foodland's customers are foreigners who are aware of sustainability issues and have a high purchasing power. This means selling more green products is an interesting market strategy for Foodland. At present their focus is very much on imported/exotic food rather than on sustainable food and the opportunity to expand the sustainable range is limited because of a lack of supply. Foodland does plan to sell more sustainable food in response to demand from customers.

5.4 Discussion and Conclusions

Sustainable food in Bangkok is sold in both niche and mainstream markets. The niche markets are primarily specialized shops, which network together. The mainstream channel for sustainable food is represented by supermarkets, which mostly belong to retail chains but also have considerable autonomy at the level of the individual firm or company. Although both channels provide sustainable food to consumers in Bangkok, they represent two different regimes for sustainable food provision. They have different organizational structures, different strategies and different expectations about the role and contribution of other actors in the food supply chain and the government. The two regimes also have different ways of targeting consumers and developing strategies for selling sustainable food. This section presents a concluding discussion of the two types of providers by looking into their ways of organizing, their expectations with respect to the roles of other actors and the future of green food provision.

Specialized shops as 'small, specialized and beautiful'

The organization of the specialized shop network is primarily informal. The shop owners have realized that one shop has no substantial power to negotiate with the other actors in the supply chain. A single individual, acting independently, runs the risk of being ruined in a capitalist world. Thus they regard the other specialized shops as allies, rather than business enemies. This has led them to form the 'Green Market Network' to work together and empower individual shop owners. A few successful specialized shops took the lead in the organization, supported by the others. The major tasks of the network are to procure sufficient sustainable food from reliable sources for the individual shops, to improve their businesses by learning from each other's experiences and to expand the market for their products. Their main task is to locate reliable suppliers to supply real sustainable food to the shops in the network. The specialized shops are not so much focused on certification but, instead rely on trust: going to the farms and seeing their way of producing with their own eyes. As a result, they are confident about the products they sell and can pass this trust on to their customers. This trust in sustainable food is primarily generated by personal interactions. They also give each other advice about feasible forms of shop management, reliable suppliers, best-selling items, etc. Learning from successful shops is better than trying new things by yourself, especially for shops that have recently opened. They also seek to find new markets by entering 'open markets' in hospitals in order to introduce sustainable food to the patients and to people who care about their personal health. There is little distance between the specialized shops and their consumers. The specialized shops communicate with consumers in an informal and friendly way, talking directly to them in the shop and organizing activities with them.

The specialized shop owners expect that their consumers are willing to learn more about sustainable food and prepared to buy sustainable food based on trustworthy information about sustainability that they offer. This makes the specialized shops proactive in giving information to consumers, as witnessed by their efforts to organize events such as fairs and open markets. The specialized shops regard themselves and their organization as well-defined and well-established. They believe that they do what they have to do energetically and do not compare themselves to the mainstream retailers. They do not feel that they are behind the supermarkets which are offering modern, imported, certified, sustainable, food. They are self-confident about their own way of realizing (green) growth. Instead of growing in terms of quantity, the specialized shops would rather follow the '*small, specialized and beautiful*' concept and develop their network. They agreed in principle that other, more mainstream strategies such as mass media dissemination and price reduction could be effective in enlarging and diversifying their consumer base, but indicated that such strategies are beyond their capacity to organize. They believe that outside support from producers and the government is necessary if they are to become a more mainstream channel for green and healthy food provision. This analysis of the present position and the strategies of the specialized shops suggests that they will continue to play a role in providing sustainable food but are likely to remain niche market actors for the foreseeable future.

Supermarkets 'entering green competitors'

The supermarkets see themselves as actors operating in a global business system characterized by increased competition for green business. The organization of supermarkets in Bangkok has a well-established formal structure, usually with a classical, top-down management policy. Individual retail outlets are part of larger retail chains with their own assortment, regime, and type of customers. The sustainability policy generally comes from the management at the head office and is passed down to the action level in the chain stores. For a multinational supermarket, like Carrefour, the sustainability policy is established at the head office in the mother country and is developed for its outlets all around the world. Carrefour Thailand localizes the global policy by adapting the elements that are judged to be compatible with, and most relevant to, the food-sector in Thailand. Due to their formal management strategies, the supermarkets are more removed from their consumers and communicate with them in more indirect ways. The supermarkets tend to use standard certification and labels as important information devices to inform their consumers and give them confidence about green offers. Since the supermarkets provide both conventional and sustainable products, they leave the choice to the customer and do not try to persuade him/her to make only green choices. They often have a special corner for sustainable food for interested consumers. They provide certified food so that consumers who are well-informed about food standards and issues of health and sustainability are able to purchase these foods. Although national regulations for sustainable food in Thailand are not well developed, the supermarkets do not wait for help from the government. They develop their own quality signs (i.e. Carrefour Quality Sign) or a symbol of reliance (i.e. Royal Project Brand) to inform their customers and to give consumers trust in (their) sustainable food. The supermarkets are aware of the global tendencies towards more green preferences and how these are influencing consumers in Bangkok. They realize that, in the near future, consumers will probably buy more sustainable food from their supermarkets. In an effort to guarantee market shares, we can expect supermarkets in Bangkok to contribute to the on-going growth of sustainable food provision. This is especially true of the multinational and upscale supermarkets. Carrefour and the Mall Group are front runners in terms of providing sustainable food in a systematic way, using clear policies and practices developed especially for green provision. The national supermarkets, like Foodland and Golden Place, are positioned behind them due to their smaller size and the more local style of organizing their green supply.

This chapter has discussed the overall strategies of providers of sustainable food in Bangkok, looking into their diverse ways of organizing supply – including the price strategies followed - and of connecting to, and communicating with, consumers about green provision. These strategies are part of the right-hand side of the conceptual model used in this study (see Figure 2-1 in Chapter 2). They represent the methods that providers use in their system of sustainable food provision. In the following chapter we look at consumer responses to the green offers that are available to them.

Chapter 6 Consumers' Views on Green Food Provisioning

6.1 Introduction

Green consumption practices are the joint result of green provisioning systems and green lifestyles. Green consumption cannot be maintained without both sides of the equation being engaged. For example, if providers supply green food but consumers don't buy it, it is not sustainable. And, if consumers want to buy green food but there is none available at the market, they cannot fulfil their green aspirations. So, it is important to examine both providers and consumers. Chapter 4 investigated the current situation of green food provisioning in Bangkok. Chapter 5 examined the strategies for providing sustainable food that emerged from meetings (focus groups and interviews) with specialized shops and mainstream supermarkets. This chapter looks at the consumer side. Just as modern food providers are looking for ways to transform themselves into a more green version, it is important to determine what strategies are likely to make consumers adopt more sustainable habits. The literature shows that consumers are active social agents who are able to influence the main actors involved in providing green alternatives. The social practice model concentrates on the collective behaviour of social actors rather than on individual attitudes (Oosterveer, Guivant et al. 2007) and looks for the ways in which a group of social actors can change everyday practices and reduce environmental impacts. This involves understanding how and why consumers take responsibility for their shopping and eating behaviour. This, in turn, involves consumer profiling, to identify what kind of consumers are most likely to engage in buying sustainable food to target them with an appropriate strategy. For this reason, this chapter aims to build an overall picture of consumers in Bangkok, and pay attention to how their everyday-life shopping and eating habits can become more sustainable.

The green consumer movement emerged in the 1980s, when increasing environmental concerns translated into the sale of environmentally-friendly products. Many consumers, especially in developed countries, would like to buy sustainable food, due to concerns about their health, the environment and social justice. According to Rice et al. (1996), consumers in Japan and Singapore were also aware of environmental problems and showed an interest in buying environmentally-friendly products. In Europe, organic markets have expanded rapidly over the past decade or so, due to a relatively high consumer consciousness, large scale food safety scares and a popular rejection of GMOs. In 1998, the term "ethical consumerism" emerged in Britain, to describe consumers who buy products which are less harmful to the environment or society (Spaargaren 2005).

This chapter focuses on the profile of consumers in Bangkok and intends mainly to answer research question 1.2 which deals with consumer concerns, practices and motivations when buying and eating sustainable food. To answer this question, a focus group method was used as a tool to analyse consumers' perspectives and concerns. These focus group discussions were used to investigate consumers' opinions about providers' strategies. The feedback from consumers revealed what they think about food and how they rank their priorities in food issues. The focus group process also brought out a general picture of urban Thai consumers.

This chapter also pays attention to the second research question concerning how the provider strategies can be better aligned with consumers' lifestyles and expectations. The possibilities to improve the level of sustainable food consumption in Bangkok are examined by looking at different providers' strategies to increase sustainable food consumption. In the previous chapter, a range of strategies for specialized shops and supermarkets was developed. This chapter looks at the response from consumers in Bangkok towards these strategies; whether they would be effective and which strategy would be the most likely to convince them to buy more sustainable food. This chapter also examines the commonalities and differences between green consumers and general consumers. The collective behaviour of green consumers helps us to understand existing practices regarding sustainable food consumption. But, to increase the level of sustainable consumption, it is also important to know how the behaviour of general consumers can be changed. Two focus group discussions were therefore set up with different groups of consumers; the first one for green consumers who regularly consume sustainable food and the second one for general consumers. These focus groups not only showed the general picture of the two groups but also help to match the right strategy to the different target groups.

The methodology, including the selection of participants and procedures of the focus group discussion, is presented in section 6.2. Section 6.3 presents the results of the focus group discussion with green consumers. The benefits and disadvantages of the strategies are discussed in section 6.3.1. and the priority ranking of strategies in section 6.3.2. Section 6.4 presents the results of the focus group discussion with general consumers and follows a similar structure as the previous section. Section 6.5 provides a discussion and the conclusions of this chapter.

6.2 Methodology

As in the previous chapter, the method of focus group discussions was used as a tool to collect data from different consumer groups. Focus groups are a way of listening to and learning from people. Focus groups were used in this research because they produce interactive discussions (Stewart, Shamdasani et al. 2007) and concentrated amounts of data on a specific subject (Morgan 1997). The focus group approach is also highly efficient in generating qualitative data since group dynamics help in focusing on the most important topics (Robinson 1999). The method can be used to examine, not only, what people think, but also how they think and why they think that way. This section explains the research method used for these focus group discussions. It discusses the number of participants, how they were selected, the method of data collection and the procedures followed in the focus group discussions.

6.2.1 Participants in the Focus Group Discussions

It was decided to set up two separate focus groups; one with green consumers and the other with general consumers. This was done in order to reduce heterogeneity among participants – which can lead to poor communication between group members and even to conflict. The target number of participants in each focus group was between ten to fourteen people. This size of group is not too large to inhibit some participants expressing their opinions, yet large enough to allow a division of the participants into sub-groups for specific assignments. Most researchers recommend that the group should be homogeneous in order to draw out people’s shared experiences (Kitzinger 1995). However, it can also be advantageous to bring together a diverse group to draw out different perspectives within a group setting (Kitzinger 1995). In this research we recruited diverse people into each focus group. Then we grouped people with the same characteristics (such as the period of ‘being green’ for green consumers and the age/income for general consumers) into sub-groups for the assignment. This allowed us to smooth the discussion with small group work and to obtain different perspectives from different small groups.

Ten participants were involved in the green focus group discussion. They were regular green consumers who often buy and eat sustainable food. These green participants were recruited by asking the specialized shops to invite regular customers (who buy food from them at least once a week) to participate in the focus group meeting. The specialized shop owners first asked their regular customers if they were interested in participating in the focus group. If they showed an interest, invitation letters including the research objectives, the procedure of the focus group discussion, and the schedule were sent to them. After that, the researcher called people on the list to confirm whether they were available to take part in the meeting.

Fourteen participants were involved in the general consumers' focus group discussion. They were general consumers with the purchasing power to buy sustainable food, whether or not they regularly consumed it. Convenience sampling was employed to recruit this group. This type of sampling saves time and money but it does not eliminate the need to consider the characteristics of the group and ensure that the group consists of representative numbers of the larger (target) population. First of all, the researcher called friends who live in Bangkok, informed them of the objectives of focus group and asked whether they could attend the focus group. The researcher also asked them to recommend other friends to participate in the focus group. The advantage of recruiting people who know each other is that friends and colleagues can relate each other's comments to incidents in their shared daily lives.

The participants were divided into three smaller groups, each with similar characteristics so as to smooth the discussion and avoid conflicts between participants. As Stewart et al. (2007) stated that the diversity of participants provides greater perspective and innovation, these small group sessions were followed by a plenary discussion.

We expected that the length of time that people had been green consumers would influence their perception towards the providers' strategies. So we used this criterion to group green consumers. Green consumers who have consumed sustainable food for 4-5 years or more were assigned to group 1. Green consumers who have consumed sustainable food for 2-3 years were assigned to group 2, while green consumers who have consumed sustainable food for 1-2 years were assigned to group 3. A list and descriptions of the participants in the green consumer focus group discussion is included in Appendix 7.

The key to success in a focus group is focusing the group dynamic to work towards achieving the goals and objectives of the research. Focus group participation can be maximized by increasing interpersonal interactions through the appropriate selection of participants, so also in this case group work was assigned to increase the participation rate.

The general consumers were also divided into three groups. However, we grouped these consumers according to their age and income. Similar age would imply a similar way of thinking, similar lifestyle, and comparable disposable income. With this separation, commonalities and differentiations between sub-groups can be defined. Group 1 consisted of young people (24-26 years) who had been working for just a few years and were on a basic salary. Group 2 consisted of adults (27-48 years) who had been working for a longer time. They had the highest purchasing power. Group 3 consisted of elder people (58-63 years) who were retired and had money from a pension and/or their children. A list and description of participants in the general consumer focus group discussion can be found in Appendix 8.

6.2.2 Focus Group Discussions: Procedures

The procedures for the focus group discussion with green consumers and general consumers were similar and the description here covers both focus group discussions. The focus group discussion started with registration. The participants sat at a round table and could see all other participants. Roundtable discussion provided each participant with equal opportunities to share their ideas. The moderator opened the discussion by asking participants to introduce themselves. After that, the researcher introduced the background of this discussion, the PhD project, the structure of the session, and the objectives and expected results of the meeting. The definition of sustainable food was also clarified to avoid possible misunderstanding.

Both focus group discussions were divided into three sessions; (1) a presentation of strategies for selling more sustainable food (which were obtained from a focus group discussion and interviews with providers), (2) group work to discuss the benefits and advantages of these strategies and to rank them, and (3) a plenary session. The order of the focus group discussion is outlined in Figure 6-1.

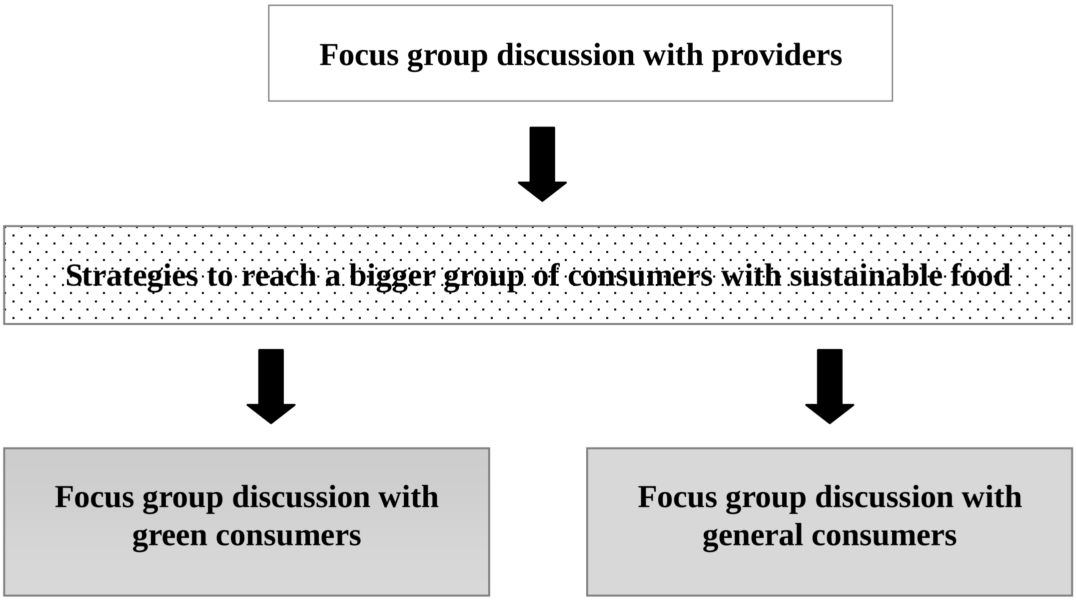


Figure 6-1 The Structure of the Focus Group Discussions

The researcher started by presenting the strategies for getting sustainable food to more consumers in Bangkok. These strategies were obtained from the focus group discussion with providers in November 2008. They can be categorized into 4 major groups; A) the target group for sustainable food, B) information and communication about sustainable food, C) connecting providers and consumers, and D) the price of sustainable food.

In terms of strategy A, the target group of sustainable food was still restricted to patients and the family/friends of patients who were particularly aware of such food. If other groups of consumers, such as teenagers, were convinced to eat sustainable food regularly, the sales of sustainable food would steadily increase. Strategy B, on information and communication about sustainable food, combined three sub-strategies. First, the media should play a more important role in disseminating information about sustainable food and its benefits to health, the environment and society. Second, standard quality certifications must be applied to sustainable food. Each standard had criteria to meet, from raw materials to the food production process. Standard quality certification and labelling could increase consumer trust in sustainable food and make them willing to pay more for it. Third, information about how food promotes social sustainability could be given to consumers. Some sustainable food, such as Fair Trade helps local communities by providing markets to sell products at a reasonable price. If the consumers know that they indirectly help these local producers by buying Fair Trade food, they might be willing to pay the extra price. Strategy C, connecting providers and consumers, involved three aspects. First, developing more distribution channels, such as delivery services, restaurants, event fairs and gift baskets to make things more convenient for consumers. The second aspect involved providers setting up activities for consumers, to strengthen the relationship and to develop trust between the two groups. These activities could be things like farm visits, cooking classes, and yoga classes, all of which are potentially interesting for health-concerned consumers. Finally, exhibitions and product presentations were considered a way to communicate more in-depth information about sustainable food products. Last, but not least, the final strategy D concerned the price of sustainable food. At present, many people were reluctant to buy sustainable food, as it is too expensive, even though they may be well aware of its benefits. Economic reasons always drive consumers when shopping and this also applies to sustainable food. The strategies (and their sub-strategies) are shown in Table 6-1 and the PowerPoint presentation in Appendix 9.

Table 6-1 Strategies Obtained from Providers

Strategy	
A: The target group for sustainable food	
	A1) Extend the target group from patients to the younger generations and develop branding
B: Information and communication about sustainable food	
	B1) Inform consumers about sustainable food via the media
	B2) Standard certification i.e. logo, storyline
	B3) Promote social sustainability
C: Connecting providers and consumers	
	C1) Increase distribution channels e.g. home delivery, restaurants, event fairs, and gift baskets
	C2) Activities bringing providers and consumers together to develop trust e.g. farm visits, cooking and yoga classes
	C3) Exhibition campaigns and product consultation (PC)
D: The price of sustainable food	
	D1) Price reduction

After the researcher presented the strategies, the participants were divided into three groups for group work activities. Each group was assigned the task to discuss the pros and cons of the strategies and to rank them in order of appeal. The results of this exercise are presented in the next section.

6.3 The Results of the Focus Group Discussion with Green Consumers

This section presents the results of the focus group discussion with green consumers in Bangkok. First, the pros and cons of the strategies developed by providers are presented in section 6.3.1. The participants discussed the strategies in terms of pros and cons, expressing their views about them. They then ranked the strategies (section 6.3.2) as an exercise that helped clarify the criteria that green consumers use when they buy food.

6.3.1 The Pros and Cons of Each Strategy: Responses from Green Consumers

The green consumer participants were divided into three groups but these three groups generally had a similar way of thinking about the strategies. Therefore, we discuss the results of each discussion together in this section. The pros and cons of each strategy are set out below and summarized in Table 6-2.

Table 6-2 The Pros and Cons of Each Strategy: Summary of Focus Group Discussion with Green Consumers

Pros	Cons
A) The target group for sustainable food	
A1) Extend the target group from patients to the younger generations and develop branding	
- easy to educate - change attitudes today, change long term practice in the future - able to convince family and friends	- no interest in health and sustainable issues - easily change - low purchasing power
B) Information and communication about sustainable food	
B1) Give information via media	
- access all groups of consumers - present more information and educate consumers	- cost
B2) Standard certification	
- create trust in itself	- too many standards - cost
B3) Promote social sustainability	
- link local producers to consumers - strengthen, support and promote local communities	- looks deceptive if over advertised - conflicts with capitalism
C) Connecting providers and consumers	
C1) Increase distribution channels	
- convenience - time saving - fresh food to the door whenever consumers want - consumers directly meet providers	- additional cost of transportation and service
C2) Activities bringing providers and consumers together to develop trust	
- create good relationship, trust, and understanding between providers and consumers	money and time consuming limited types of interesting activity
C3) Exhibition campaigns and product consultation (PC)	
- educate consumers via direct communication with providers - new sustainable food products - opportunity to get discounts on food	- cost - no time to visit exhibition
D) The price of sustainable food	
D1) Price Reduction	
- decide to buy more readily - increase quantity of sales - change attitudes of consumers that sustainable food is not always expensive - extend target group of consumers	- low standard image - questions about expiration / quality - limited period of discounts

A The target group for sustainable food

A1) Extend the target group from patients to the younger generation and develop branding

Green consumers believed that the younger generation was a key target group for promoting sustainable food consumption in Bangkok in the long run. If young people were educated about sustainable food consumption, they would grow up with a green awareness and their behaviour would be permanently changed. The participants from one group said ‘it is already too late to educate adults to change their behaviour since they have been like this for a long time. You may have heard the Thai proverb “*You can't teach an old dog new tricks*”. Thus, children are our hope to establish sustainable food consumption in the future’. Teenagers receive education at school and can easily grasp the reasons for eating sustainable food. Green consumers also believed that young people could influence other family members to change their behaviour by telling them about the benefits of eating sustainable food. If demand for sustainable food increased, the subsequent increase in production would lead to a reduction in price. Moreover, when more consumers ate good food, the country's population would be healthier which, in turn, would have a positive effect on the health infrastructure and the country’s economy. However, the weakness of this strategy lays in the lack of attention paid by young people to the issue of sustainable food because most of them have no health problems. Green consumers accepted that young people were, by nature, more interested in movies, actors, and music than health and the environment. Also, young people tended to have shorter attention spans. They might be interested in sustainable food for a while, but any break in its promotion could lead to a failure of the strategy.

B Information and communication about sustainable food

B1) Inform consumers about sustainable food via the media

Green consumers believed that the media are a powerful tool to educate consumers. The media can reach a wide range of consumers as most people in Bangkok regularly watch television. Seeing advertisements for sustainable food everyday would make consumers remember sustainable food and they would subsequently look for it when they went shopping. The media could also present information about the positive and negative sides of sustainable food to consumers and help a wide range of consumers obtain accurate information about sustainable food. Green consumers thought the information strategy would increase sustainable consumption in the long run by changing consumers’ attitudes and subsequently their behaviour. However, green consumers were aware of the cost of media exposure. Sponsors would be needed to fund advertising and sustainable food articles did not easily catch potential sponsors' attention. Furthermore, green consumers were of the opinion that the issue of sustainable food was currently not of great interest to television and the newspapers. The target group of each media was very specific; therefore, the types of media suited for each targeted group of consumers needed to be analysed. Green consumers could not identify which type of media would be the most effective to reach the largest group of consumers with a positive message about sustainable food.

B2) Standard certification i.e. logo, storyline

Green consumers believed that standard certification was a good strategy because it increased consumers' trust in sustainable food. Green consumers trusted certified food more than non-certified food. Oral communication from providers or advertisements may sometimes be useful, but certified food sets a formal guarantee about its safety for human consumption. Standard certification was also helpful for places where shop personnel were not available to give customers information about the safety of food. Consumers looking for sustainable food can see the logo for themselves and be confident about what they were buying. When green consumers saw the standard symbol, they had no more questions about that food. As a result, they thought the standard certification strategy could increase sales of sustainable food. However, green consumers realized that the process of standard certification was costly and could result in a price increase for sustainable food. Green consumers also complained about too many kinds of certification, which made them confused and question the authenticity of the different standards.

B3) Promote social sustainability
Promoting social sustainability builds bridges between domestic producers in rural areas and consumers in urban areas. The consumers become aware of the source of their food and can feel proud about helping the local community by buying their food. One participant, who was a member of Community Supported Agriculture (CSA) and a contracted organic vegetable delivery service, said that she visited organic farmers in the rural area before making the decision to contract a delivery service. Buying vegetables from CSA not only ensured her food safety, but it also made her feel good about helping a community. Another participant reported that she also had contracted an organic vegetable delivery with the CSA. 'Since delivered vegetables are based on season and weather, consumers could see the situation of farmers by seeing the type and quantity of vegetables. If I get a small quantity of vegetables, I feel worried about the farmers because I assume that they are confronted with some problems.' Green consumers were somewhat worried about the over-promotion of social sustainability, since it might look rather deceptive and unreliable.

C. Connecting providers and consumers
C1) Increase distribution channels e.g. home delivery, restaurants, event fairs, and gift baskets
Green consumers agreed that increasing distribution channels would boost the sales of sustainable food to consumers in Bangkok. Traffic problems in Bangkok discourage consumers to go shopping at shops located far from home. As a result, new distribution channels such as regular delivery and internet shopping would facilitate consumers, especially those with a busy lifestyle. A delivery service helps consumers to save time when shopping and they can order sustainable food whenever they want. This avoids the need to store large quantities of food in their refrigerator. One participant liked this delivery strategy very much because it meant she could get fresh food every day. Moreover, providers who delivered sustainable food could obtain better insights into the quality of life of their consumers by observing housing, family members, jobs, etc. This information could help providers to improve their businesses. The deliveries also give providers the chance to communicate more with consumers and create personal relationships. When consumers feel that they can trust the providers, they will automatically trust the sustainable food they offer, no matter whether the foods are certified or not. However, green consumers realized that delivering food is costly for providers. This might make sustainable food deliveries too expensive for consumers with lower purchasing power.

C2) Activities bringing providers and consumers together to develop trust
Green consumers believed that doing activities together with providers would definitely develop a closer relationship between the two groups. When consumers met providers more frequently, they would start to trust them more. This trust in the providers would also increase trust in the sustainable foods they provide. This strategy encouraged consumers to buy sustainable food more regularly from their local shop. Moreover, some activities, such as farm tours, gave consumers a better understanding of the farming process and increase their willingness to pay more for sustainable food. Such activities also provided consumers with an open forum to tell providers about their needs and preferences. One participant took part in an

informal dialogue with providers and told them that she needed sustainable food for a patient who had cancer. As a result, the providers procured more types of sustainable food which were appropriate for cancer patients. Nevertheless, this strategy might be disadvantaged by the time and costs involved. Most of the general consumers in Bangkok did not have much time and felt that participating in these activities was a waste of time or money. Green consumers suggested that providers should set up more varied activities that everybody in the family could do things together during weekends. Green consumers with children complained that they would like to join activities such as yoga and informal meetings but had to take care of their children. If the activities were also interesting for children, they could bring the whole family to participate in activities more frequently.

C3) Exhibition campaigns and product consultation (PC)

Green consumers considered having product consultations (PC) to introduce sustainable food products to be advantageous consumers for several reasons. Firstly, PCs could give comprehensive information about sustainable food to consumers. In the same way, consumers could ask as many questions as they want. Exhibitions often showed new types of sustainable food products and gave consumers the opportunity to try new sustainable food products and to ask where they could buy them. Thirdly, many sustainable foods shown at an exhibition were normally discounted or offered with some sort of promotion. This allows consumers to buy cheaper sustainable food products. However, green consumers were aware of the expense of setting up an exhibition and employing a PC, which might increase the price of sustainable food while consumers in Bangkok might not have enough time to visit an exhibition.

D The price of sustainable food

D1) Price reduction

Green consumers agreed that a lower price of sustainable food would convince more consumers to buy it. Since most consumers, especially general consumers, believed that sustainable food was much more expensive than conventional food, a price reduction would help change this perception and make consumers feel that sustainable food is not always expensive. More consumers would visit sustainable food corners more frequently and more middle class people would be able to buy sustainable food. The size of the group of sustainable consumers would increase, as would the sales of sustainable food. This would decrease the price of sustainable food in the future, due to larger production opportunities. However, green consumers thought that most discounted items were close to their sell-by dates and so often did not purchase these items. Short discount periods do not give consumers much time to benefit but, if the discount period was too long, the group felt that it might not be interesting.

6.3.2 Green Consumers' Ranking of the Strategies

It is interesting to note that the first priority of all categories of green consumers was similar, but they differed on the subsequent priorities were. The overall results of the ranking exercise by green consumers are shown in Table 6-3.

Table 6-3 Ranking of Strategies by Green Consumers

Priority	'Dark Green' Consumer	'Medium Green' Consumer	'Light Green' Consumer
First Priority	B) Information	B) Information	B) Information
Second Priority	C) Activity between providers and consumers	D) Price reduction	D) Price reduction
Third Priority	D) Price reduction	A) Extend target group for sustainable food	C) Activity between providers and consumers

From Table 6-3 we can conclude that all the three groups of green consumers agreed that information was the most effective strategy to increase sustainable food consumption in Bangkok. During the discussion, green consumers explained that accurate information about sustainable food, such as the benefits for health and the environment, as well as about the reasons why sustainable food was expensive, helped consumers understand the causes for paying more to get a superior product. 'You get what you pay for' one participant said. Receiving information and understanding the benefits led to a change in consumers' attitudes which would help maintain the level of sustainable food consumption in the long run. Green participants thought that consumers normally changed their minds due to new information. Some consumers might try to eat sustainable food because it was fashionable but, consumers who were aware of the benefits of sustainable food would buy it repeatedly because they knew it was good for their health or the environment. Green consumers therefore gave the first priority to the information strategy. They also suggested that the providers should offer more information about sustainable food inside shops, on websites, and in brochures not only to promote sustainable food but also to encourage existing consumers. Public media, such as government television announcements and national newspapers, should play a larger role in giving out more information about sustainable food to consumers because these channels could influence a large number of consumers.

Each group of green consumers had a different opinion about the second priority for a strategy to sell more sustainable food in Bangkok. While light and medium green consumers gave the second priority to the price reduction strategy, the dark green consumers ranked connecting providers and consumers as their second priority. Light and medium green consumers explained that price was an important factor to encourage consumers to buy sustainable food. Many consumers knew the benefits of consuming sustainable food, but could not afford to pay such high prices and a price reduction would allow more people to buy sustainable food. Unlike the other groups, the dark green consumers gave the second priority to shared activities between providers and consumers. They believed that doing activities with providers made consumers more trusting the sustainable food sold in shops and allow the providers to recommend new sustainable foods to consumers and encourage them to continue eating sustainable food.

Dark, medium and light green consumers had also different opinions on the third strategic priority. The dark green consumers gave the third priority to price reduction because while the information strategy and connecting providers with consumers strategy could motivate sustainable food consumption among consumers who were already interested in health issues, price reduction could convince other groups of consumers to consume more sustainable food whether or not they realized the importance of health and the environment. Moreover, dark green consumers also thought that only consumers who were interested in sustainable food would pay attention to information in the shop, consider the standard certification on the package or spend time doing activities with the providers. The price reduction strategy was therefore effective to attract a wider group of consumers. Medium green consumers put extending the target group of sustainable food consumers third, while dark and light green consumers did not include this strategy in their top three priorities. Medium green consumers thought that teenagers were an important target for establishing a strong future base for sustainable food consumption. If the teenagers were educated and convinced to eat sustainable food, this would become a part of their life when they grew up. The light green consumers placed connecting providers and consumers third in their priority list, since this would motivate consumers who were interested in participating in activities to keep buying sustainable food.

6.4 The Results of the Focus Group Discussion with General Consumers

A second focus group discussion was carried out with general consumers in Bangkok. This enabled a comparison to be made with the green consumers. The organisation of the discussion with general consumers was similar to that described in the previous section. This section presents the results of this focus group discussion. The pros and cons of the strategies are discussed in section 6.4.1, followed by general consumers' ranking of these strategies in section 6.4.2.

6.4.1 The Pros and Cons of Each Strategy: Responses from General Consumers

The participants were divided into three groups by age and income, but these groups had a strikingly similar view on the pros and cons of the strategies. Therefore the results of the discussion are presented here for the group as a whole, rather than for the three different working groups separately. The pros and cons of each strategy are summarized in Table 6-4.

A The target group for sustainable food

A1) Extend the target group from patients to the younger generations and develop the branding

General consumers thought that brand development would help young people recognize sustainable food products and that they then would buy them more readily as a result of this. Although the young generation had low purchasing power, they might persuade their parents to buy sustainable food. However, sustainable food was not part of the lifestyle of young people because they did not really care about their health or the environment. They were more concerned with taste and fashion. Young people preferred good tasting, rather than healthy food. General consumers suggested using famous stars as ambassadors for sustainable food as teenagers would imitate them much more readily. However, this change would probably be temporary because young people changed their behaviour according to fashion, not because they wanted to protect their health and the environment. Therefore, general consumers thought that the strategy might fail in the long run because fashion was always changing.

B Information and communication about sustainable food

B1) Inform consumers about sustainable food via the media

This group thought that the media were the best way to increase consumers' interest in sustainable foods. People in Bangkok had easy access to, and kept themselves updated on, the media. Information dissemination would increase consumers' knowledge, raise their awareness and increase the likelihood of buying sustainable food. Frequent publishing via reliable media would help consumers to recognize sustainable foods and remind them that sustainable food was good for them. When consumers watched, heard and read about sustainable food every day, they would automatically recognize its benefits. The media should provide more in-depth information about sustainable food to raise consumers' knowledge. If consumers realized the benefits of consuming sustainable food, their willingness to pay a little extra for it would increase as well. However, some media were very superficial and could exaggerate the benefits which might confuse consumers and create mistrust about sustainable food.

B2) Standard certification i.e. logo, storyline

The general consumers felt that certified food certainly increased consumers' trust in the quality of food and encouraged them to purchase it. However, they were confused about too many certifications and standards from local and international certification bodies in the supermarkets. This result reflects a finding in the study by Roitner Schobesberger (2006) who found that only a small number of consumers in Bangkok knew the meaning of sustainable food labels. There were some overlaps between the labels and their understanding; for instance, the concepts of 'safe' and 'hygienic' labels were associated with 'non-toxic'. Moreover, more than half of the respondents thought that 'hygienic' and 'pesticide-free' was the same as 'organic' (Roitner-Schobesberger 2006). As a result of too many standards, consumers did not see any difference between the products. Some logos could be seen on every package which made general consumers feel uncertain about the validity of the standards. General consumers did not know the definition of each standard and they said that they could not distinguish between 'hygienic', 'hydroponics', and 'organic'. Instead of trusting them, general consumers felt uncertain about the standards involved in certification, even if they were genuine. General consumers said that only committed consumers with high purchasing power paid attention to certified food because it was usually more expensive than non-certified food. An emphasis on standards would also negatively affect non-certified food, compared with certified food.

B3) Promote social sustainability

General consumers referred to the concept of CSR (Corporate Social Responsibility) which was receiving much publicity in Thailand at the time. Many companies apply CSR strategies to promote their reputation. General consumers were of the opinion that that CSR not only gave companies a good image, but allowed them to make money as well. Consumers could feel good about indirectly supporting local communities by buying food products from a particular company. General consumers gave the example of the Doi Kham Royal Project. This project was well known for promoting social and sustainable development, contracting hill tribes to farm for them in exchange for technical and marketing support. Nevertheless in the general consumers' perspective, the social sustainability issue was not the first priority when purchasing food. They claimed that the influence of social sustainability was unimportant compared to price and that the high price of socially sustainable food also made general consumers reluctant to purchase it. Some consumers were also doubtful about the transparency of private companies and unsure whether the benefits were genuinely passed on to local communities.

C Connecting providers and consumers

C1) Increase distribution channels e.g. home deliveries, restaurants, event fairs, and gift baskets

The participants agreed that increasing distribution channels would be effective way for better connecting general consumers with providers. Due to a lack of time and busy lifestyles, home delivery services seemed a good choice. However, the participants were concerned about the cost of such a service. If the cost was too high, consumers could not order sustainable food every day. This would constrain any behavioural change towards consuming more sustainable food.

C2) Activities bringing providers and consumers together to develop trust
All participants agreed that activities bringing providers and consumers together would be effective in developing consumers' trust. The consumers could also obtain in-depth information about sustainable food. This could facilitate the formation of networks of sustainable consumers and help them maintain more sustainable lifestyles. However, few general consumers were interested in getting involved in such activities, which were seen as more relevant for committed consumers or for patients who would like to change their behaviour.

General consumers in Bangkok thought that participating in such activities was a waste of time and money. Activities such as farm visits normally involved a lot of travel, which is costly both in time and money. For example, a farm at Rai Pluke Rak in Ratchaburi Province which received visitors was located about 150 kilometres from Bangkok and visitors had to pay 650 Baht (14.91 Euro[7]) for taking part in the activity. General consumers in Bangkok also did not have enough time for regular activities such as cooking classes or yoga. So this strategy would not entice general consumers to purchase more sustainable food.

C3) Exhibition campaigns and product consultation (PC)
Participants thought that exhibition campaigns might be effective for people in Bangkok. They discussed two issues, the exhibition venue and the information from PCs. Normally exhibitions were set up at shopping malls or places that consumers usually visit. In contrast, a distant exhibition venue would be a waste of time due to travel distance and the city's traffic problems. Tasting food and receiving information from PCs often made consumers more interested in buying sustainable food. However, the performance and knowledge of the PCs were very important factors. Consumers' interest would drop if PCs over-stressed the benefits of their products. A PC should have a thorough knowledge of the sustainable food product in order to explain them clearly to consumers and answer any question they might have, otherwise consumers would not trust the information.

D The price of sustainable food
D1) Price reduction
All the groups of general consumers clearly stated that a lower price would increase the likelihood of their decisions to purchase sustainable food and would encourage more consumers to do so, although some thought that people might hesitate about the quality of low-priced food. All the age groups of general consumers gave top priority to price reduction. Even the oldest group (58-63 years) was more concerned about money rather than about issues of health.

[7] 1 EUR = 43.5753 THB (22 April 2011)

Table 6-4 The Pros and Cons of Each Strategy: Summary of Focus Group Discussion with General Consumers

Pros	Cons
A) The target group for sustainable food	
A1) Extend the target group from patients to the younger generations and develop branding	
- able to understand the reasons for buying sustainable food - able to induce their parents to buy sustainable food - easy to make decision to buy - create customer loyalty by brand development	- low purchasing power - not attractive to young generation
B) Information and communication about sustainable food	
B1) Give information via media	
- acknowledge consumers - access several target groups of consumers - help consumers recognize sustainable food	- increases in the price of sustainable food - incorrect information leads to mistrust and confusion
B2) Standard certification	
- removes doubts about safety and quality - create trust	- more expensive - lower status for non-certified sustainable food - confusion through too many standards
B3) Promote social sustainability	
- positive attitudes towards sustainable food - contribute income to communities	- doubts about transparency and unsure that communities really obtain benefits - limited distribution channels - lack of attention to social sustainability
C) Connecting providers and consumers	
C1) Increase distribution channels	
- access more consumers - increase consumers' awareness. - convenience / time-saving - value added to food products i.e. gift baskets	- increase price/ service charge
C2) Activities bringing providers and consumers together to develop trust	
- develop consumer trust - receive information directly from providers - opportunity to meet people who have common interests - increase motivation to buy sustainable food	- activity fee - restricted time and inconvenience of travelling - limited interest from consumers
C3) Exhibition campaigns and product consultation (PC)	
- opportunity to obtain more details and ask questions - make consumers aware about sustainable food and its benefits - make sustainable food more attractive	- mistrust due to (lack of) ability of PCs (unable to answer questions, etc.) - increased cost - no time to visit exhibition
D) The price of sustainable food	
D1) Price reduction	
- attractive for all groups of consumers - make decision to buy easier - suitable to current economy of Thailand	- suspicious of nearly expired food - decrease in trust of quality

6.4.2 General Consumers' Ranking of Strategies

It is notable that the first priority of all groups of general consumers was similar, but that their subsequent priorities differed. The overall results of the ranking by the general consumers is shown in Table 6-5.

Table 6-5 Ranking of Strategies by General Consumers

Priority	Young consumer	Middle-aged consumer	Elderly consumer
First priority	Price reduction	Price reduction	Price reduction
Second priority	Activities between providers and consumers	Information	Information
Third priority	Information	Activities between providers and consumers	Activity between providers and consumers

Table 6-5 shows that price was considered the most important factor by the general consumers in Bangkok when buying sustainable food. The participants from every group, even the group with higher incomes, agreed that they would buy more sustainable food if the price was lower. Thus, we can conclude that price reduction would be the most effective strategy for getting more general consumers to buy sustainable food. This may be due to the extreme price difference between conventional and sustainable food. According to a supermarket survey in April 2009, sustainable food was twice as expensive as conventional food (see price list in Appendix 10). In the discussion, young general consumers with a lower income said that that lower prices would encourage the majority of consumers, including middle and lower income groups to purchase sustainable food. The middle aged consumers, with a higher income, also said that that price reduction was the highest motivating factor for consumers. The word "SALE" was like a magnet that enticed consumers to buy whether they needed the products or not. Giving discounts on sustainable food therefore could persuade more general consumers to buy them. Elderly consumers, with a low income, said price reduction was the most concrete strategy, since they believed that price was always the first factor for consumers when making a purchasing decision.

The second and third priority differed between young consumers and older consumers. While middle aged and older consumers considered information as the second priority , young consumers determined their second priority to be the relationship between providers and consumers. Young consumers argued that consumers in Bangkok already received sufficient information from various media; therefore, so it would be more interesting to strengthen the relationship between providers and consumers. An activity that brought together providers and consumers would be a proactive strategy that could be effective for consumers who already knew, more or less, the benefits of the products. In contrast, the middle aged and older consumers explained that people in Bangkok did not have much time to participate in such activities. These groups consequently gave the priority to information dissemination rather than activities between providers and consumers. The middle aged consumers thought that information would make consumers trust the quality of food more and the elderly consumers believed that when the consumers recognized the benefits of sustainable food, they would be much more inclined to purchase it. However, the recognition of these benefits always came after price in their opinion.

6.5 Discussion and Conclusions

This chapter investigated the responses from green and general consumers towards the strategies developed by the providers. The strategies include 1) expanding the target group for sustainable food, 2) information about sustainable food and its communication, 3) connecting providers and consumers, and 4) the price of sustainable food. The pros and cons of each strategy, as well as their rankings, were discussed in this chapter. The focus group method was used as a tool to collect consumers' thoughts and understand why they think that way. The focus group method helps to identify the overall picture of consumers' attitudes in Bangkok. It did not include very poor consumers. Instead, it focused on the perspectives of consumers who regularly buy and eat sustainable food and those with the purchasing power to buy it but who are not (yet) engaged in purchasing sustainable food. The study also looked at other characteristics of consumers within the green and non-green groups. Green consumers were grouped into dark green, medium green, and light green according to the length of time that they have consumed sustainable food. General consumers were divided into young, middle-aged, and elderly. However it turned out that there was little difference between these three groups. In this section we discuss the differences between green and general consumers.

Green consumers in Bangkok have optimistic views on the potential for sustainable food. They are very hopeful that more people will change their habits and eat more sustainable food because of health, environmental and local community benefits. In the focus group, green consumers gave top priority to information dissemination. They believed that consumers would be more willing to buy sustainable food if they knew the reasons for paying more for it. They thought that increasing consumers' awareness will help increase sales of sustainable food. Green consumers thought that information like standard certification is one way to prove that sustainable food is really safe and reliable. However, green consumers in Bangkok complained that various standards tended to confuse rather than reassure consumers. Consumers need to be educated in order for standard certification to be successful, Green consumers also hope that teaching young consumers today will create changes in the future. Gilg et al. (2005) argued that moving to sustainable lifestyles is a gradual process which must be seen in the context of an holistic move towards new lifestyles, which highlights the importance of changing the process of thinking while people are still young. For instance, primary school pupils could learn about the definition of sustainable consumption, the procedures of sustainable farming and about standards. As a result, they know the benefits of sustainable food and the aims of sustainable farmers. They could also distinguish the sustainable level of different standards. Green consumers hope that this generation will develop the habit of eating sustainable food when they grow up and be healthy. Green consumers in Bangkok thought that a shift in consumption behaviour will improve people's quality of life. This view of green consumers in Bangkok is a form of ethical consumerism, based on moral reasoning about the consequences of actions for human wellbeing. Pelton et al. (2002) argued that green consumer behaviour can be regarded as a form of ethically oriented consumer behaviour that is motivated not only by consumers' own personal needs, but also by their concern for welfare of society as a whole. Besides favouring information and education, green consumers in Bangkok are also open to doing activities together with providers. Attending activities not only strengthens trust between providers and consumers, it also gives consumers a much deeper understanding of the benefits of sustainable food.

Unlike green consumers, general consumers in Bangkok are less optimistic about the future of sustainable food. The focus group showed that all general consumers, even those with a high purchasing power, gave the first priority to price strategies. They think that conventional food is safe enough for them and do not understand the reasons why they have to pay more. They rely more on an economic rationale when buying food. They know that sustainable food is somehow good for them in some respects, such as health, but money is important as well. Although general consumers in Bangkok are aware of sustainability, this is not enough for them to change their buying behaviour. They shop in modern retail establishments, and have enough money to pay for food, but still choose the most economic product. In this case, we cannot predict behaviour by looking at attitude. The gap between attitude (sustainability concern) and behaviour (not buying sustainable food) can be explained by the high price of sustainable food and the more attractive promotion of conventional food. This is consistent with the findings by Shamdasani, Chon-Lin et al. (1993) who claimed that consumers' awareness of the selection and availability of green alternatives does not always lead to ecologically-friendly consumption decisions and by McGrath (1992) who stated that consumers do not purchase green products because they are too expensive. Ottman (1994) argued that it can be a competitive advantage to have a green product, but not if other factors are compromised. Except for the issue of price, there were no other outstanding considerations that influence general consumers' decisions when buying food. General consumers think that information strategies and connecting provider-consumer strategies are worthy but also think that these strategies would further increase the cost of sustainable food. For example, they thought that doing activities together with providers, such as farm visits, yoga and cooking classes would be a waste of time and money.

Through a qualitative approach, this chapter gives a general picture of consumers' views on sustainable food consumption in Bangkok. However, we cannot simply generalize these results from a small group to represent those for all consumers in Bangkok. So the next chapter explores, on a larger scale the awareness, knowledge, and practices of consumers in Bangkok as well as trying to produce a clearer picture of the specific categories of consumers in the city. This is done by means of a larger scale quantitative survey.

Chapter 7 Investigating Consumers in Urban Thailand

7.1 Introduction

This thesis analyses sustainable food consumption in Bangkok by looking at providers, consumers, and the interactions between them. In order to move further towards sustainability, it is important that providers have strategies that encourage consumers to make their behaviour more sustainable (i.e. regularly buy more sustainable food). The previous chapters discussed sustainable food consumption from the perspectives of providers and consumers of organic food. This chapter focuses more on the consumers in Bangkok in general since the idea of the research is to better understand Thai consumers' preferences with regard to sustainable food.

The literature review shows that there is a large number of studies on sustainable food consumption and the preferences of consumers in Europe and other western countries, notably the USA, Australia and New Zealand (Thompson 1998; Lohr 2001; Torjusen, Sangstad et al. 2004; Zanoli, Bähr et al. 2004; Yiridoe, Bonti-Ankomah et al. 2005). However, little information is available about consumers' preferences for sustainable food in Asia (Nelson 1991; Moen 1997; Zhang 2007). Rice et al. (1996) examined the attitudes and behaviour of consumers in Bangkok and found that the Thai are more likely to act in an environmentally concerned way if they strongly believe that their efforts will be effective and worth the effort. Vanit-Anunchai and Schmidt (2004) conducted a survey in three urban locations in Thailand and found that the willingness to pay for environmentally-friendly vegetables was related to a macrobiotic diet, health problems, concerns about chemicals and people's age. Aprilia (2005) surveyed consumers in Bangkok to identify consumers' willingness to shift to healthier and more sustainable foods and found that more than 80 per cent of the non-organic food consumers stated that they were willing to consider buying organic food. In addition, Roitner-Schobesberge (2008) carried out a survey to investigate the reasons why consumers purchased or did not purchase organic vegetables in Bangkok. He found there were three main motives to purchase organic food: anticipated health benefits, the attraction of new and fashionable products and the search for better tasting products. The main barrier to purchasing organic products was the lack of information about what the term 'organic' actually means. What is missing in the existing literature is detailed information about the ways in which Thai consumers think about increased levels of green provision provided by mainstream food retailers and specialized food shops. How do they assess the quality of green provision and how do they, in principle and in practice, respond to the greater availability of more sustainable foodstuffs in Bangkok?

The previous chapter, based on consumer-focus groups, addressed these questions with the help of qualitative research methods. This provided in-depth knowledge about the opinions and behaviours of selected groups of consumers in Bangkok. This chapter seeks to complement this qualitative approach, by using a quantitative research methodology in order to obtain a more representative picture of Bangkok consumers in general. It assumes that there is a variety of different types of consumer in Bangkok, with different lifestyles and different ways of thinking about food. Therefore, for practical purpose, this study divides consumers into three categories based on the places where they regularly shop: green shops, high-end supermarkets, and low-end supermarkets (See 7.3 for further explanation on this decision). We then investigated the eating lifestyles of these three groups of consumers and inquired about their shopping practices and views on buying sustainable food. The responses to the surveys enabled us to fill existing gaps in the literature on sustainable food consumption in Thailand. This chapter develops a full picture of Thai consumers that answers research question 1.2 (what are the awareness, practices, and perspectives of consumers when buying and eating sustainable food?), and research question 2.2 (How can these strategies be better attuned with consumers?). By knowing the practices of different groups of consumers, it is then possible to identify the best strategies for attracting specific groups of consumers.

7.2 Variables used to characterize Bangkok consumers

The questionnaire (Appendix 11) was used as a tool to collect data to explore the consumer lifestyle in Bangkok. In order to develop a fuller picture of consumers in Bangkok, the survey not only looked at the attitudes of consumers - as conventional research always does (Mol and Spaargaren 2006) but also at consumers' practices (what consumers eat and where they shop) and consumers' perspectives with regards to providers (how consumers think about providers' strategies). The survey looked at three main topics: 1) consumers' attitudes, 2) consumers' practices, and 3) consumers' perspectives. The variables for these topics are discussed below.

Variables for consumers' attitudes

The attitudes of consumers were considered represented through two main concepts: consumers' awareness of and knowledge about sustainable food. These variables illustrated consumers' present knowledge about sustainable food as well as their openness to changing their habits. We assumed that there would be differences in the awareness and knowledge of customers of specialized shops, high-end supermarkets and discount stores.

Consumers were interviewed to determine their awareness of sustainability issues, such as safety, the environment, society and animal welfare, together with other concerns, such as appearance, price and promotion. The survey looked at the considerations made when buying food and also at the trade-offs between green and other variables. The green variables included factors that contribute to sustainability such as health, safety, environment, organic, local produce and animal welfare. The other variables were factors that affected purchasing behavior but do not contribute to sustainability such as price, special offers, brand image, freshness, taste and beauty. These variables were obtained from question 8 in part 1 of the questionnaire which asked the respondents to weigh the level of importance they attach to these considerations. The respondents could choose from a range of options on a Likert Scale – whether they strongly disagreed, disagreed, neither agreed nor disagreed, agreed or strongly agreed. The respondents who strongly agreed on green variables were regarded as consumers who had high awareness of sustainable food and actively considered safety and the environment before making purchase decisions.

Consumers' knowledge about sustainable food was tested by asking whether they could define the meaning of sustainable food and recognize a distinct sustainable food standard. Fot this purpose, nine logos of food standards were presented to the respondents (in question 9). Five of these logos certified that the food met organic standards while the other four logos represented hygienic/pesticide safety standards. Respondents were asked if they could choose the organic food standards in the selection. After the test, the results were ranked according to their correctness. If the respondents correctly selected one organic logo, their level of awareness was low. If the respondents correctly selected two or three organic logos, the level was moderate. If the respondents correctly selected four or five organic logos, the level was high. In the next question, the respondents were asked to select a correct definition of organic food. If the respondents selected a correct definition, it would imply that they had some knowledge about sustainable food. Appendix 12 shows the variables and values of variables for consumers' attitudes that were used in the analysis.

Variables for consumers' practices
To assess consumer practices, the survey included three main variables: eating lifestyle, shopping habits and their experience of buying sustainable foods. The questions on consumers' eating and shopping habits focused on the type of food that they normally eat, the place of eating, the frequency of buying food and the percentage of their income spent on food. The experience of buying sustainable food examined whether the consumers already bought or had not yet bought sustainable food. This element of the study aimed to explore whether or not the existing eating and shopping behaviour of the three groups of consumers varied. It was assumed that the experience of customers of specialized shops, high-end supermarkets and discount stores was different.

To determine their eating lifestyle, the types of food that consumers normally eat, as well as the place of eating, were analysed. The eating lifestyle variables include traditional (Thai rice and side dishes) vs. modern food (western and fast food) as well as eating at home vs. eating outside the home. These variables were obtained from question 7 of the questionnaire, which asked the respondents to select the lifestyle that came closest to their practice.

To analyse shopping habits, consideration was given to the place of shopping for food, the frequency of shopping, and the percentage of income spent on food. These variables were obtained from questions 4, 5, and 6 in part 1 of the questionnaire, where the respondents were asked to select the lifestyle that mostly matched their practice. These variables also show how important food is to the consumers.

Consumers' experience with regard to sustainable food was evaluated in terms of whether they bought organic food. They were asked which organic product they have bought (out of a range of 9 options). The variables were obtained from question 12 in part 1 of the questionnaire. Appendix 13 shows the variables and the values of the variables for consumers' shopping practices that were used in the analysis.

Variables for consumers' perspectives
To investigate consumers' perspectives, their preferences for particular kinds of strategies for promoting green food shopping practices offered by providers were investigated. The study aimed to discover which strategies might positively influence Bangkok consumers to purchase more sustainable food. These strategies were obtained from the focus group discussion with the representatives of the specialized shops and the in-depth interviews with supermarket managers. The strategies can be divided into four major categories; 1) targeting additional groups among sustainable food consumers, 2) providing information about sustainable food, 3) connecting providers and consumers and 4) the price of sustainable food. These strategies were subsequently presented to green and general consumers in consumer focus group discussions (See Chapter 6). These two groups were asked to discuss the pros and cons of each strategy and to rank them, from the most to the least effective. The focus group discussions showed that green consumers gave top priority to the information strategy while general consumers were mostly attracted by a price reduction. This chapter explores whether customers of specialized shops, high-end supermarkets, and discount stores have different views about these strategies. The questionnaire used expressions to represent the strategy (Appendix 14) to which the respondents were asked to respond on a Likert-type scale

(ranging from 1 = strongly disagree to 5 = strongly agree) thereby enabling us to understand consumer preferences and to determine whether there was any difference between the three groups.

7.3 Organizing the Survey

The focus group with consumers found that green consumers who regularly shopped in specialized shops were different from general consumers. For green consumers, shopping for sustainable food at these retail outlets was a familiar practice. The green consumers knew the possibilities to 'chose green' when shopping for food. By contrast, it was expected that general consumers who shop in mainstream settings, such as the discount supermarkets would show little commitment to buying sustainable food and would not expect to be offered much. The survey was initially intended to divide consumers into two groups: green and conventional. However, the focus group found that all consumers (including green consumers) were aware of price. It was however expected that there would be a difference among the general consumers between those who shopped in discount stores and those who went to high-end supermarkets.

The survey therefore assumed three types of consumers, categorized in terms of where they regularly shop. The first group was *specialized shop customers*, assumed to be green consumers. The second group was *high-end supermarket customers* who were expected to be premium consumers, who were concerned about the quality of their food and had fewer concerns about prices. Most of the high-end supermarkets in Bangkok are in department stores (Schaffner, Bokal et al. 2005), such as TOPs supermarkets which are located on the ground floors of the Central Department Store and Gourmet Market and Home Fresh Marts which are located inside The Mall Department Store. The third group was *discount store customers*, who shop in looking for cheap items and promotional offers in places that provide all basic consumer needs under one roof at very competitive prices (Schaffner, Bokal et al. 2005). The discount store customers were expected to give top priority to low prices (Malai and Pitsuwan 2002) offered in discount stores like Tesco Lotus, Carrefour, and Big C.

It was assumed that these three groups of consumers would also differ in terms of their consumption of sustainable food. The research aimed to find out the full extent of these differences in terms of consumers' awareness, practices and views on sustainability. The following section provides a description of the data collection methods used to reach this aim.

7.3.1 Data Collection

Developing the questionnaire

The questionnaire was developed in English and then translated into Thai. The draft questionnaire was pre-tested to ensure that it was not too long, and that the questions were appropriate and made sense to the respondents. Some adjustments were made between the draft and the final version.

Selecting and training the interviewers

The interviews were conducted by students from Chulalongkorn University, who had obtained experience in doing questionnaire surveys during their master's degree program and were available to assist with the research work. Some of these interviewers had observed the focus group discussions with the customers of specialized shops which familiarized them with the topic and helped them to understand the providers' strategies. A formal training session was held before the survey took place, in which the interviewers were introduced to the questionnaire and the data collection method. They were provided with background information on the theoretical model used in the research and all the questions in the questionnaire were explained to the interviewers to ensure that they understood the meaning of each question. The interviewers started their job in the pilot stage in which twenty respondents were interviewed. After that, the researcher and the interviewers discussed and improved the final questionnaire together. During the data collection phase the interviewers were assisted by the researcher and got personal feedback on their first results.

Selection of respondents: sample size and selection method

According to the literature review, the sample size depends on time, cost and the need for precision. There is no definite answer on how large a sample should be (Bryman 2004) although the sample size needs to large enough for meaningful data analysis. Israel (1992) argues that nearly any sample size is sufficient for descriptive statistics e.g. mean and frequencies - while a larger sample (e.g. 200-500) is needed for multiple regressions, analysis of covariance, or log-linear analysis.

The ideal sample size can also be calculated according to an equation[8]. According to Yamane (1967), sample size for more than 100,000 population is 400 (5% precision levels where confidence level is 95% and P = 0.05). Five percent of precision level is applied in this study because it is widely accepted in social science research (Saengkaew 1997). The population of this study is consumers who go shopping in specialized shops and supermarkets in Bangkok. However, the number of people who go shopping in the specialized shops and supermarket has not been recorded by any agency. According to the Department of Provincial Administration, the population of Bangkok was 5,710,883 in 2008. Therefore, the number of people who go shopping is assumed to be more than 100,000 which requires sample size of 400. This survey took a slightly larger sample size of 450, to provide sufficient data for statistical analysis.

The population was selected from the general population of food shopping consumers in Bangkok in different retail outlets which had different amount of sustainable food in the shops. Consumers who were about to enter specialized shops, supermarkets or discount stores were asked to participate in the research. The selected respondents were expected to have experience with shopping in one of these sectors and to be able to answer the questions in the questionnaire.

Three specialized shops, three supermarkets and three discount stores (the latter two providing at least a minimum level of sustainable food) were selected as places for conducting the on-site interviews. The target was fifty respondents from each shop. This would give 150 respondents from each of the three categories of shop. Table 7-1 shows that these target figures were achieved.

[8] Yamane equation $n = \frac{N}{1+N(e)^2}$

When n = number of samples
N = number of population
e = deviation

Table 7-1 Number of respondents from each retail shop

Retail Shop	Consumer Type	Number of respondents	ID of questionnaire
Specialized Shop			
Vegetarian Food Centre	Specialized shop customers	50	1-50
Health Me Shop	Specialized shop customers	50	51-100
Suan Nguen Mee Ma Shop	Specialized shop customers	50	101-150
Supermarket			
TOPs	High-end supermarket customers	50	151-200
Gourmet	High-end supermarket customers	50	201-250
Foodland	High-end supermarket customers	50	251-300
Discount store			
Tesco Lotus	Discount store customers	50	301-350
Carrefour	Discount store customers	50	351-400
Big C	Discount store customers	50	401-450
Total		**450**	

The proportion of respondents from supermarket retail form (which include upscale supermarkets and discount stores) is higher than the respondents from speciality shops because the number of supermarkets in Bangkok is much higher than the number of speciality shops. The respondents were asked whether they usually came to buy food from this particular retail shop. If they answered yes, the interviewers asked them if they had about 15 minutes to complete the questionnaire. The sample was mostly convenience-based, i.e. customers were approached randomly. However, to reduce potential non-coverage bias, a sampling frame covering age, gender and education was used. The interviews took place in front of the shop or, when the shop management allowed, inside the retail outlet. In this way, we were certain to get a response from consumers who already knew the shop and were able to provide accurate responses.

There is no way of being sure whether those included are representative of the overall population in Bangkok. This survey is only expected to represent the consumers who buy at the specialized shops, at the high-end supermarket, and at the discount store. This survey gives at least an initial overview of the relevant issues and allow for insights into how these consumers perceive organic foods.

Preparing and processing the data

The data were processed with SPSS 16.0 for Windows. Descriptive statistics such as percentages, cross-tabulation, and means were used to describe demographics, awareness, and the habits and perspectives of the respondents.

ANOVA was used to determine whether the means of k populations (more than two groups) from which the samples were selected were different (Hinkle, Wiersma et al., 1988; Siegel and Castellan, 1988). First, the homogeneousness of variance was tested and then ANOVA was used to compare the mean. If heterogeneousness of variance was assumed, the Kruskal Wallis test was used to find the difference between the groups (Field 2009). Then a Bonferroni correction was used to determine which variables accounted for the differences between the means (Field 2009). ANOVA and Kruskal Wallis were used to analyse the mean difference of types of consumers in terms of their attitudes and perspectives.

7.4 Empirical Findings

Demographics of the respondents

The demographics of the respondents are shown in Table 1 of Appendix 15. Most of the respondents were female and between 20 and 39 years old. The majority of the respondents had obtained a bachelor's degree and higher. Most of the respondents were employees/private officers or students. More than half of the respondents earned less than 20,000 Baht per month. The number of students and well-educated respondents was relatively high. This was due to two reasons. First, the sampling was done in an urban area which has a large university and second, the interviews were done by university students who found it easier to approach people of the same age. Although this might have biased the results, it can still be assumed that the respondents are representative for the three identified consumer lifestyles at the time of survey.

When comparing the age, education and income of consumers, the specialized shop customers were older (30-39 years), better educated (bachelor’s and master’s degree) and had a higher income (30,001 – 50,000 Baht per month) than the other two categories of customers. There was little difference in the age, education-level, occupation and income between the customers of high-end supermarkets and those of discount stores. They tended to be young (20–29 years) and have a high education level (bachelor’s degree). The income of discount store customers was lower. Most specialized shop customers were company employees, whereas in the other two segments the majority of customers were students.

7.4.1 Consumers’ Attitudes

Consumer awareness

With regard to green awareness (Figure 7-1), we found that consumers gave much consideration to health and safety and generally considered environment, organic/hydroponic, and local produce important. The consumers did not consider animal welfare when buying food. Health and safety were more considered by the specialized shop customers, followed by discount store customers and high-end supermarket customers. The specialized shop customers were also more aware of organic/ hydroponic products than the other two groups of customers. This might be because the specialized shops sell a higher proportion of organic food than the other two types of store. It is interesting to note that the discount store customers gave more consideration to the environment and local produce than customers of specialized shops or high-end supermarkets.

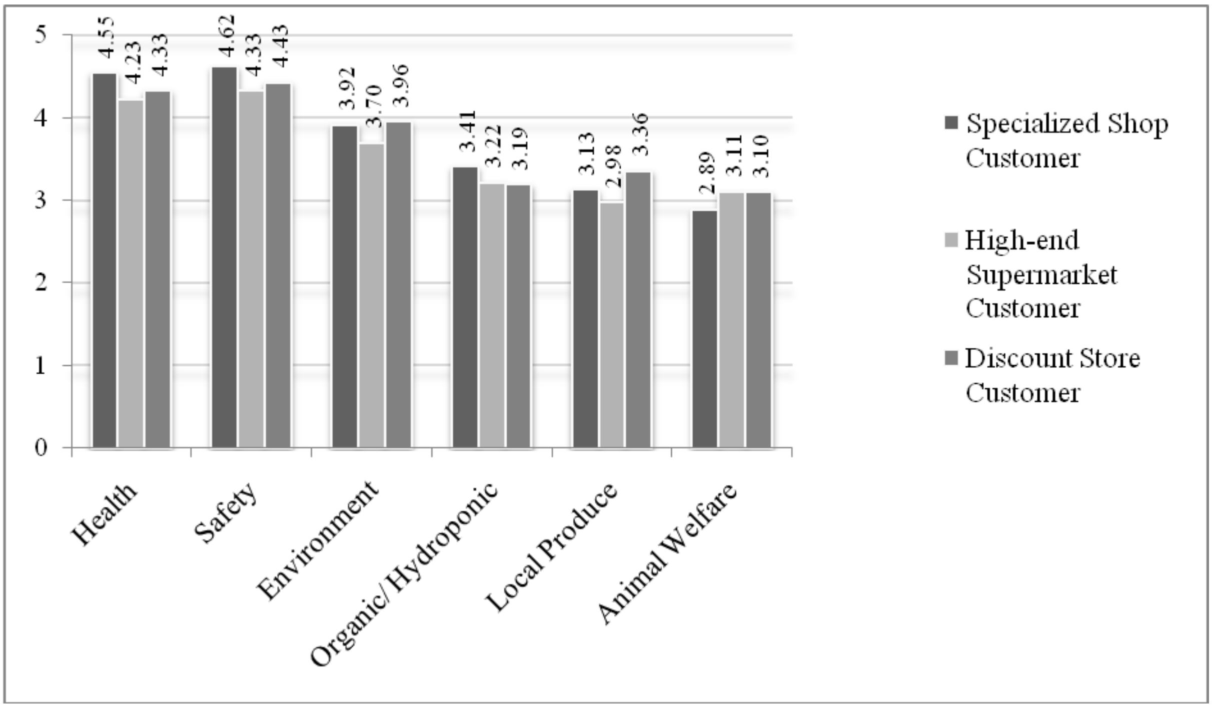


Figure 7-1 A Likert-type scale (5=agree strongly, 0= disagree strongly') on consideration of green variables

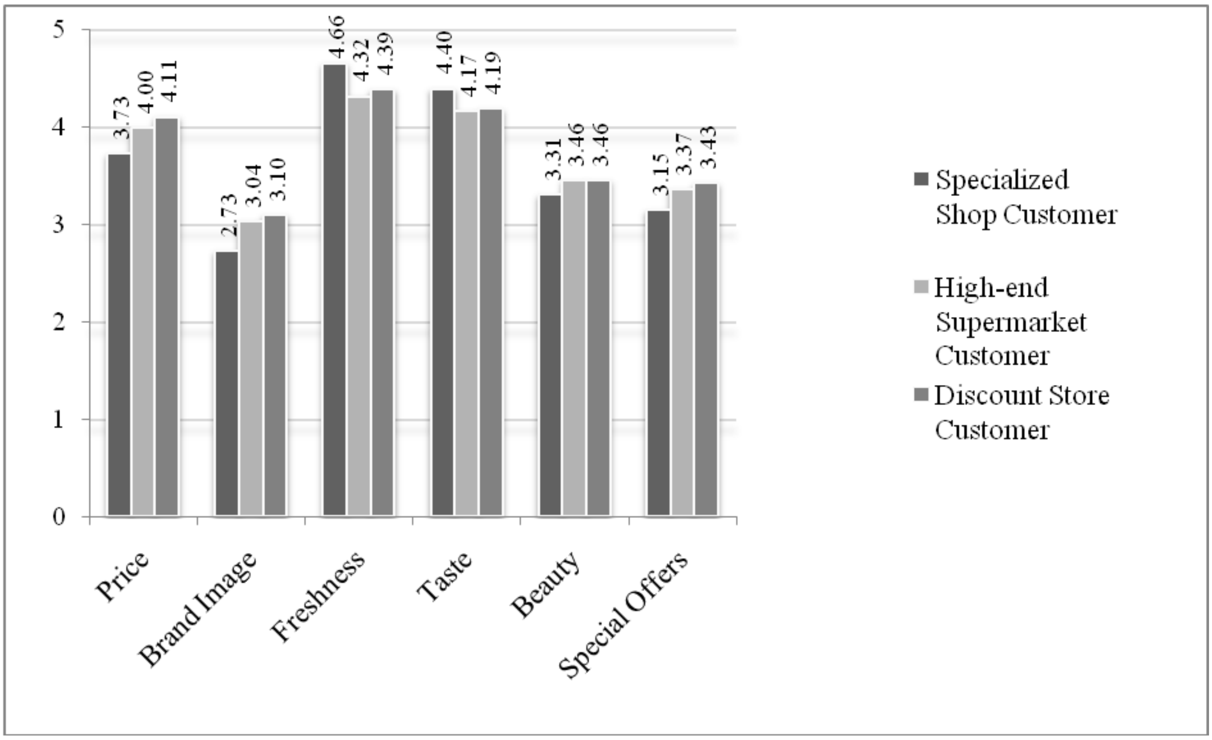


Figure 7-2 A Likert-type scale (5=agree strongly, 0= disagree strongly') on consideration of other variables

On awareness of other issues (Figure 7-2), we found that consumers strongly considered freshness and taste and generally considered price, appearance and special offers. Consumers did not consider brand image when buying food. Freshness and taste were mostly considered by specialized shop customers, followed by discount store customers and the high-end supermarket customers. The specialized shop customers were also less concerned with beauty (e.g. low calories) than the other two sets of customers. Price and special offers were mostly considered by the discount store customers, followed by the high-end supermarket customers and the specialized shop customers. From these two figures, we can imply that consumers who shop at specialized shop were concerned about health, safety, and organic issues while consumers who shop at high-end and discount store were concerned about price, brand image, and special offer of the products. This can be concluded that consumers who shop at specialized shops were concern about health issue but they did not concern about environment and social issue. The mean rating of consumers' awareness is shown in Table 2 of Appendix 15.

When we asked about the consumer's top priority when buying food (Table 3 of Appendix 15), we found that for most green consumers it was safety while the high-end supermarket customers and the discount shop customers gave their first priority to price.

Knowledge of consumers

The consumers were asked whether they were able to distinguish different levels of sustainable food by identifying the organic certification labels and giving a definition of organic food. These questions (Table 4 of Appendix 15) showed significant differences in terms of consumers' knowledge about food certification and definitions of sustainable food. The knowledge of the customers of specialized shops was much larger than that of the other two groups. High-end supermarket customers knew more about labels and certification than discount store shoppers but both groups had similar levels of knowledge when it came to defining sustainable food. These results are illustrated in Figure 7-3. These results are perhaps not surprising: the customers of specialized shops could be expected to be better educated and informed about food standards and more able to differentiate between different sustainability labels. In turn the customers of high-end supermarkets knew more about food labels than the customers of discount stores. This could be explained by upscale supermarkets having more products on offer that have standards printed on the packages of food they sell, so their customers were more familiar with these standards.

To sum up, the specialized shop customers were more aware about health and safety issues and sustainable food. The high-end supermarket customers and discount store customers were more focused on price. Customers of high-end supermarket had a low level of knowledge about sustainable food standards, but this was still higher than that of discount store customers. Customers of both these two types of store had little knowledge about sustainable food and were hardly able to distinguish between organic, hydroponic, and hygienic food.

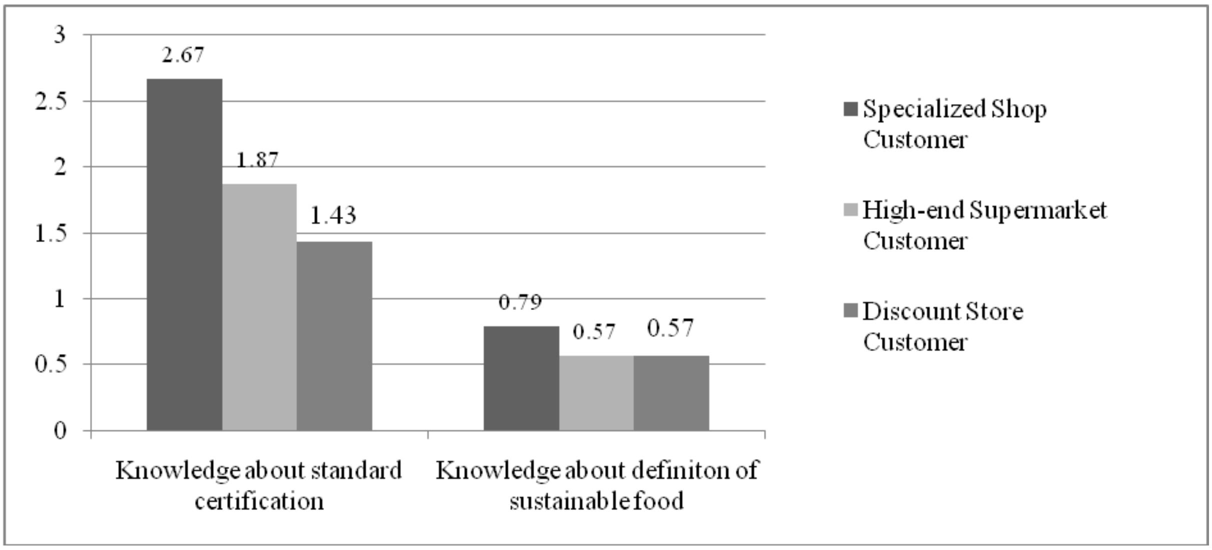


Figure 7-3 Knowledge about sustainable food of customers from specialized shops, high-end supermarkets, and discount stores

7.4.2 Consumer Practices

Eating habits

The cross tabulation (Table 5 in Appendix 15) found that all groups of consumers mostly ate Thai food (90.4%). The highest percentage of traditional food eaters were the customers of specialized shops (94.7%), followed by the customers of discount stores (90%) and those of high-end supermarkets (86.6%). Among these three groups the customers of high-end supermarkets were the most modern in terms of their consumption of fast and Western foods (13.4%). The specialized shop customers rarely ate these foods (5.3%). More than half of the customers of specialized shops (53.3%), high-end supermarkets (52%), and discount stores (51.3%) normally ate outside.

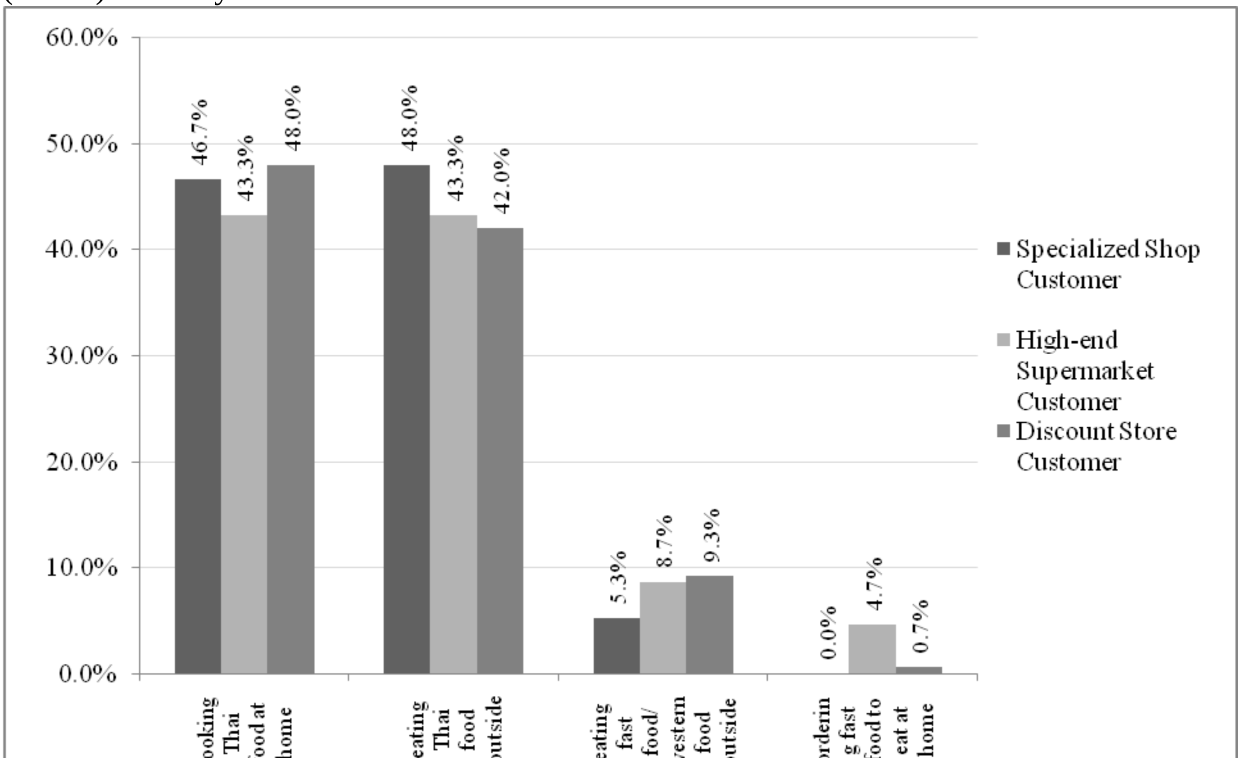


Figure 7-4 Eating habits

When combining type of food and place of eating (Figure 7-4), the customers of specialized shops were the most likely to eat Thai food outside their homes (48%) and the customers of discount stores were the most likely to cook and eat Thai food at home (48%).

Shopping habits

The cross tabulation (Table 6 in Appendix 15) found that the majority of people in all three groups of consumers (55.8%) shopped close to their homes or work/study place. The customers of discount stores tended to shop at more than one store (30.7%) while the customers of specialized shops and high-end supermarkets showed more loyalty to same shop - with only 23.3% and 22.7% of them respectively shopping at more than one store. The customers of specialized shops went shopping between one and two times a week, far less frequently than the customers of high-end supermarkets and discount stores, who went shopping more frequently (5 times per week and more). A large percentage of the customers of specialized shops and discount stores spent 16 – 30 per cent of their income on food. By contrast, among the customers of high-end supermarkets the largest group (33.3%) spent a higher percentage (31 – 50%) of their income on food

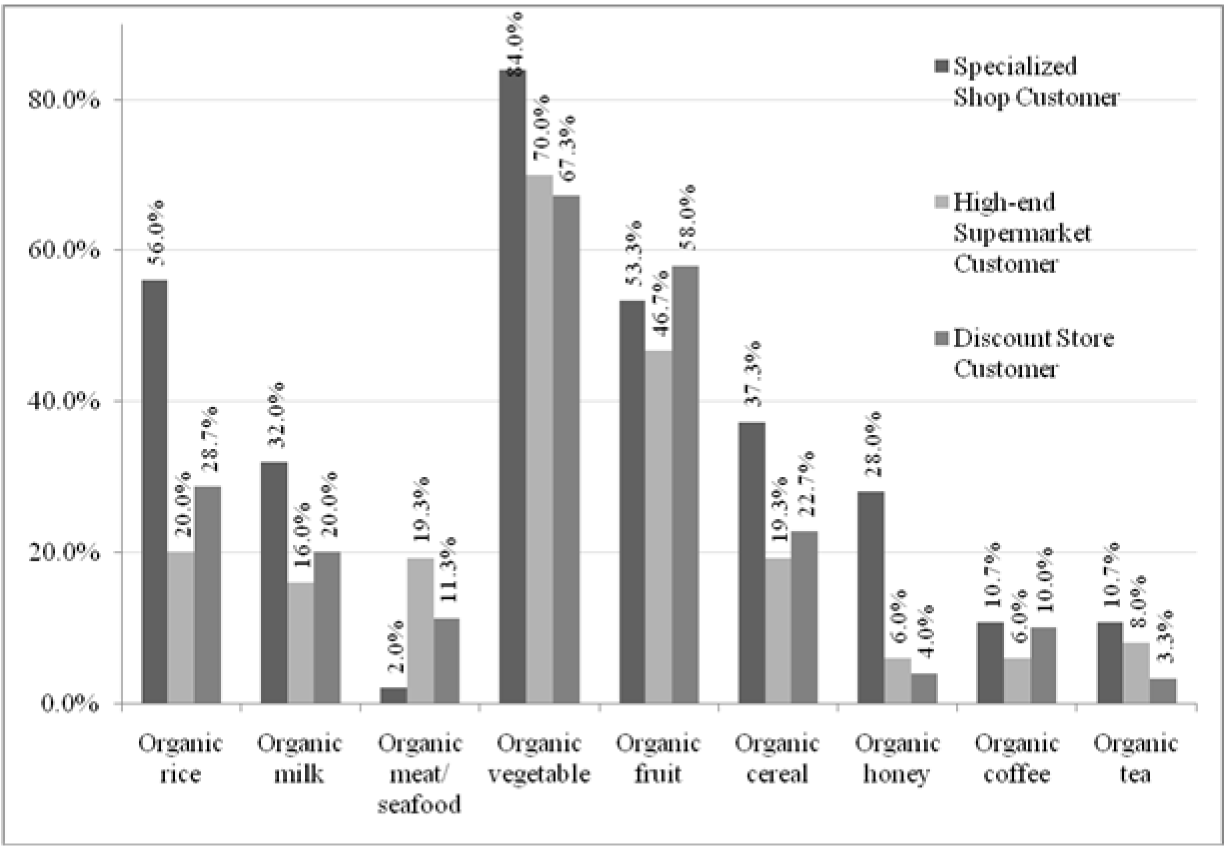


Figure 7-5 Experience of buying organic food

Experience of buying sustainable food

All of the consumer groups (Table 7 in Appendix 15) regularly bought organic vegetables, fruit, rice and cereals. Customers of specialized shops had more experience in buying all forms of organic food, except organic meat. This is because specialized shops in Bangkok largely sell only vegetarian organic food products, so their customers do not look for meat when shopping there. At the time of the survey the only organic meat and seafood available in

Bangkok was imported from abroad and was available in a few top-end supermarkets, which explains why customers of these shops bought organic meat and seafood more frequently than the other two groups.

The difference tests (Table 8 in Appendix 15) showed that there were significant differences among the various groups of consumers in terms of their experience in buying organic rice, milk, meat, vegetables, cereals, honey and tea. Customers of specialized shops had a different experience in buying organic food than the other two groups, where the pattern was quite similar. Figure 7-5 shows that these groups of consumers had more experience with buying organic vegetables and rice than with other types of food. This ties in with the preference of all groups for eating typical Thai food, which mainly consists of rice and vegetables.

To conclude this section, it was found that all the three groups of consumers had quite similar eating lifestyles. The survey found that all of them regularly ate Thai food and regularly ate out. The customers of specialized shops differed from the other two groups in terms of their shopping habits and experience of buying sustainable food. They went shopping less frequently and spent less of their income on food. This might simply be because they are better-off and spend a lower proportion of their income on food. The other two groups had lower incomes and, as a result, their 'food-expenditure' was proportionally higher.

7.4.3 Consumers' Perspectives

This section discusses the findings on the consumers' perspectives on strategies for providing sustainable food. It offers the opportunity to test consumers' views about the strategies preferred by the owners of the specialized shops. These strategies included: focusing on target groups, providing information, connecting providers and consumers, and pricing. Chapter 6 showed that green consumers gave the highest priority to information dissemination, while general consumers were more attracted by lower prices. We tested this hypothesis again in this survey to see if the customers of specialized shops respond positively to the information strategy and customers of high-end supermarkets and discount stores to the pricing strategy.

Target group strategy

At present the target group for selling sustainable food is mainly limited to patients or people who have to keep an eye on their health. One of the providers' strategies was to seek to expand the target group of sustainable food consumers to include teenagers as they are young and may easily adopt new things. When we asked the three groups of consumers whether they agreed with this target group strategy, there was widespread agreement with the idea of extending the target group for sustainable food to teenagers.

However, the survey also showed that the three groups of consumers have different views on these strategies. Mean difference tests (Table 9 in Appendix 15) showed that there were significant differences among the three consumer groups in terms of their perception of whether eating sustainable food made them appear modern or conservative. The post-hoc test also found that the perspectives of the customers of specialized shops differed significantly from those of the other two groups. The specialized shop customers did not think that they looked more modern or conservative by eating sustainable food, while the other two groups of consumers were very similar in their views that eating sustainable food did reflect an image of the modern eater (see Figure 7-6).

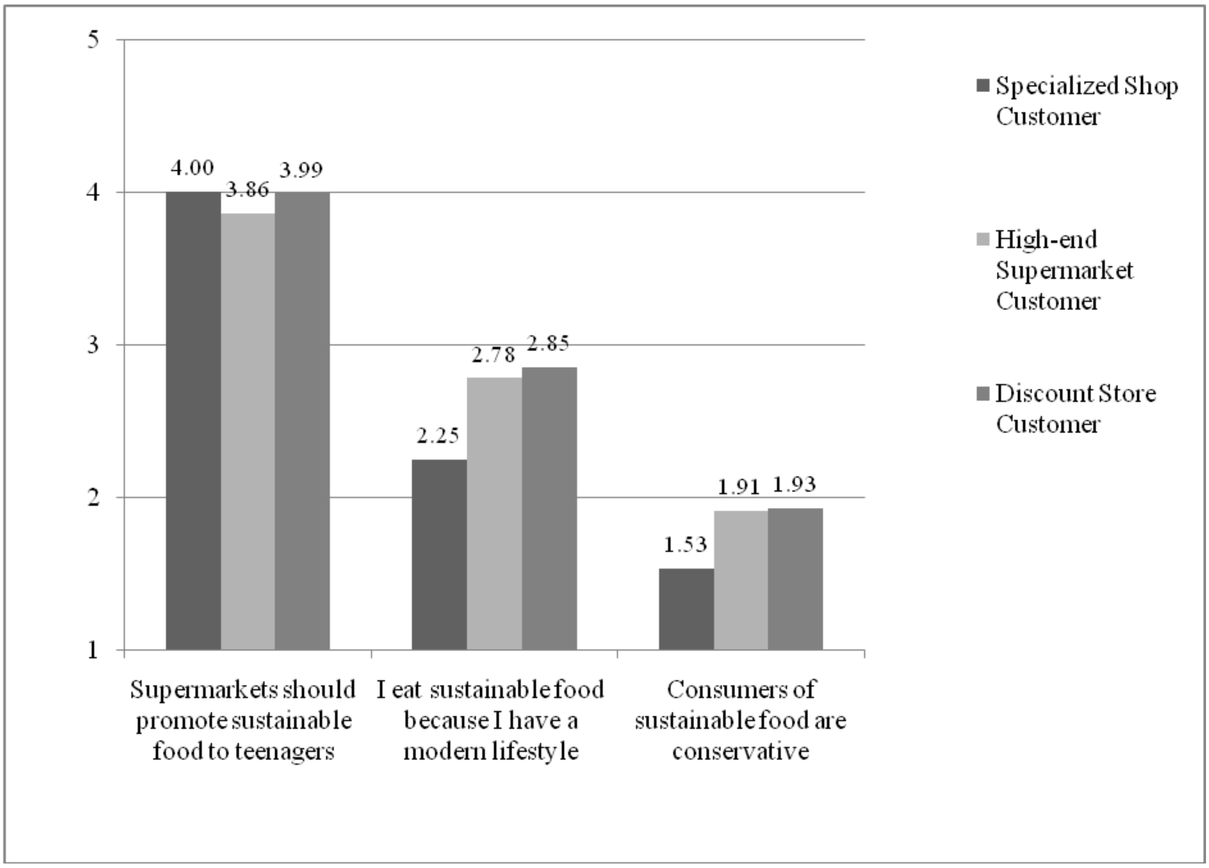


Figure 7-6 A Likert-type scale (5=agree strongly, 0= disagree strongly') on perspectives of consumers on target group strategy

Information strategy

Lack of information is seen as one of the major factors that limits consumers in changing their habits and eating more sustainable food. This suggests the importance of disseminating more information about health and the environmental benefits of sustainable food to consumers through the media and other methods, such as standard certification. Mean difference tests (Table 10 in Appendix 15) show that there was no significant difference between the groups of consumers in terms of the importance they gave to more information being published in the media. All groups agreed strongly that there should be more information about sustainable food in the media to convince consumers to buy more sustainable food. However, there were significant differences between the specialized shop customers and the other two groups of consumers in terms of how often they looked at certification standards, and understood the health and environmental benefits of sustainable food.

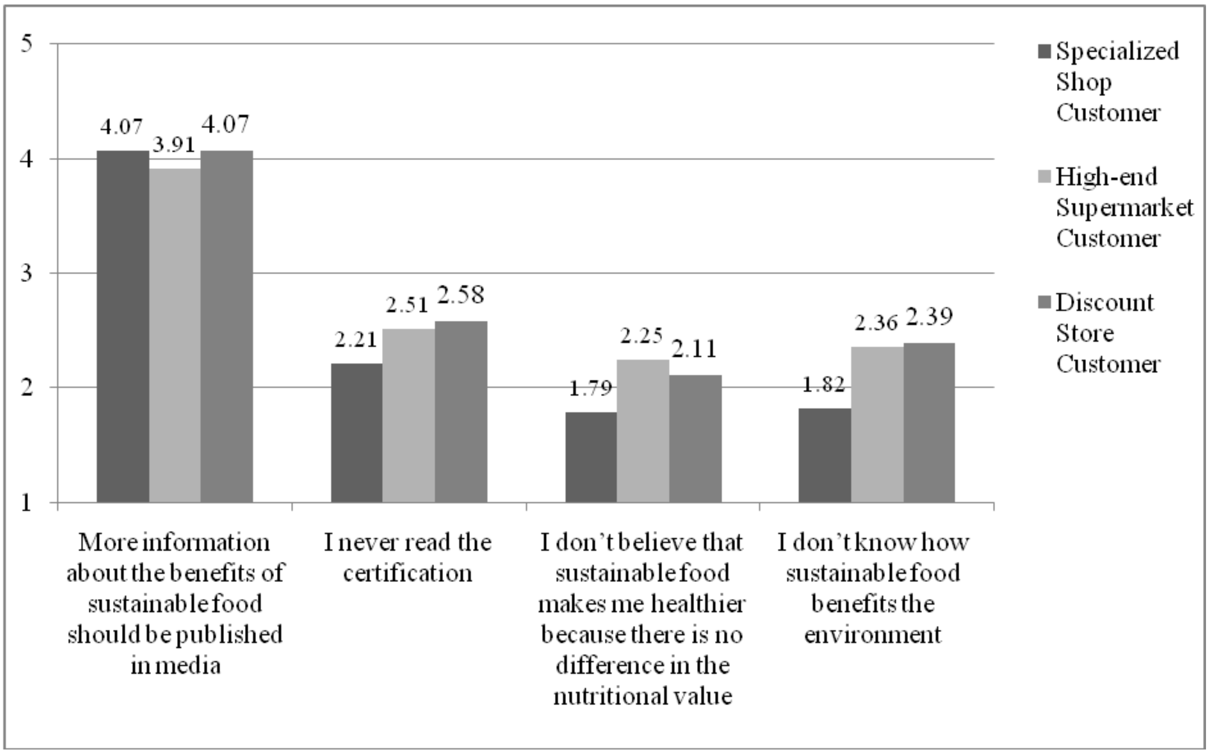


Figure 7-7 A Likert-type scale (5=agree strongly, 0= disagree strongly') on perspectives of consumers on information strategy

Customers of high-end supermarkets and discount stores had relatively similar perspectives on information strategies (Figure 7-7). The survey shows that certification might not make much difference to these two groups as they reported that they paid less attention to such labels. The survey also found that the high-end supermarket and the discount store customers were less aware of the health and environmental issues related to sustainable food. These groups might well respond to more information on these topics.

Connecting providers with consumers:
Face-to-face interactions between providers and consumers can create personal relationships o, which can give the consumer an implicit trust in the food that the provider offers. Other aspects of this strategy include developing more personalized distribution channels such as home delivery for the convenience of consumers. Some providers also offer activities such as farm visits, yoga and cookery class to consumers.

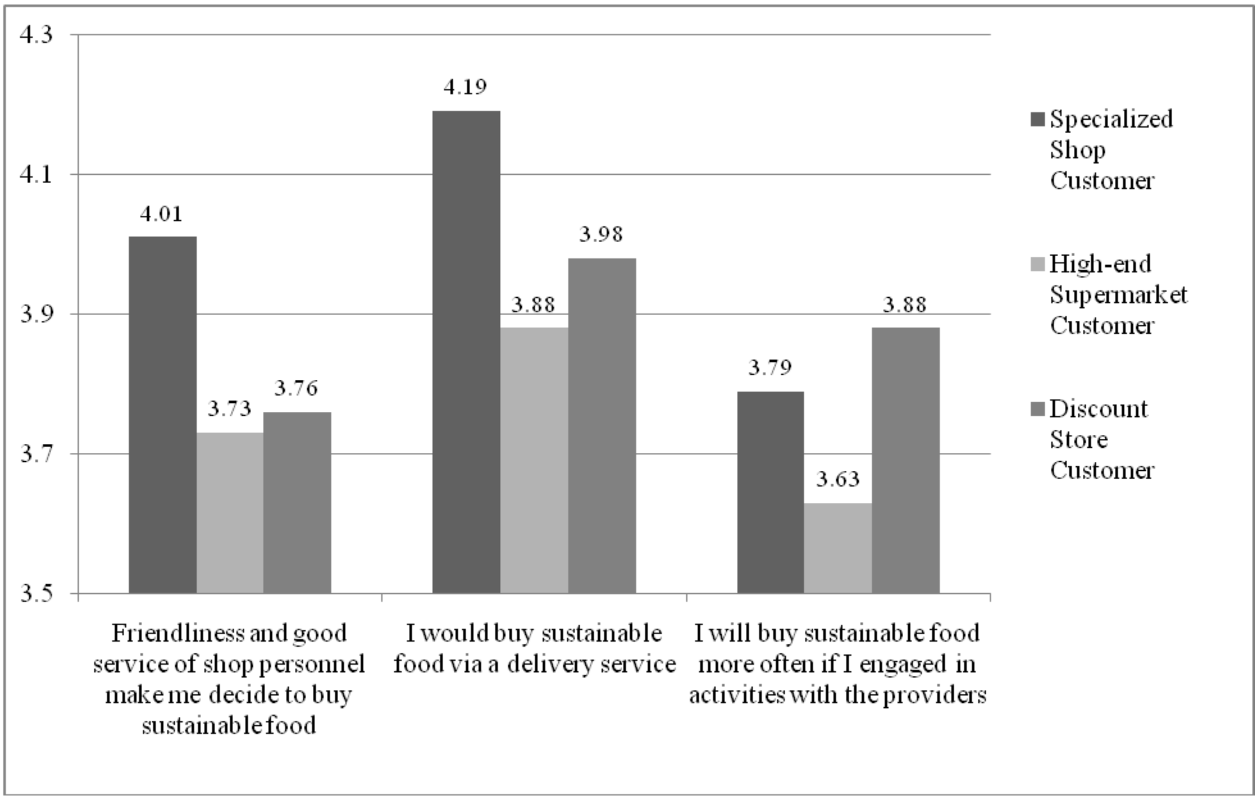


Figure 7-8 A Likert-type scale (5=agree strongly, 0= disagree strongly') on perspectives of consumers on connecting provider - consumer strategy

The survey found quite a few differences between the attitudes of the three groups of consumers in terms of this strategy (Figure 7-8). Mean difference tests (Table 11 of Appendix 15) showed that there was no significant difference between the different types of consumers in terms of the shop personnel's service. However, the specialized shop customers appreciated talking to shop personnel more than the other groups did. The friendliness and good service of shop personnel did influence the customers of specialized shops. There were significant differences in the responses to the question about home delivery services. The post-hoc test found that the customers of specialized shops found this far more appealing than the customers of high end supermarkets. It is interesting to note that activities bringing providers and consumers together appealed most to the customers of discount stores, even more than to customers of specialized shops - at whom most activities are currently aimed.

Price strategy

The high price of sustainable food makes consumers reluctant to shift their buying behavior from conventional to sustainable food. It is obvious that the price of sustainable food is higher than of conventional products and that discounting items will attract consumers.

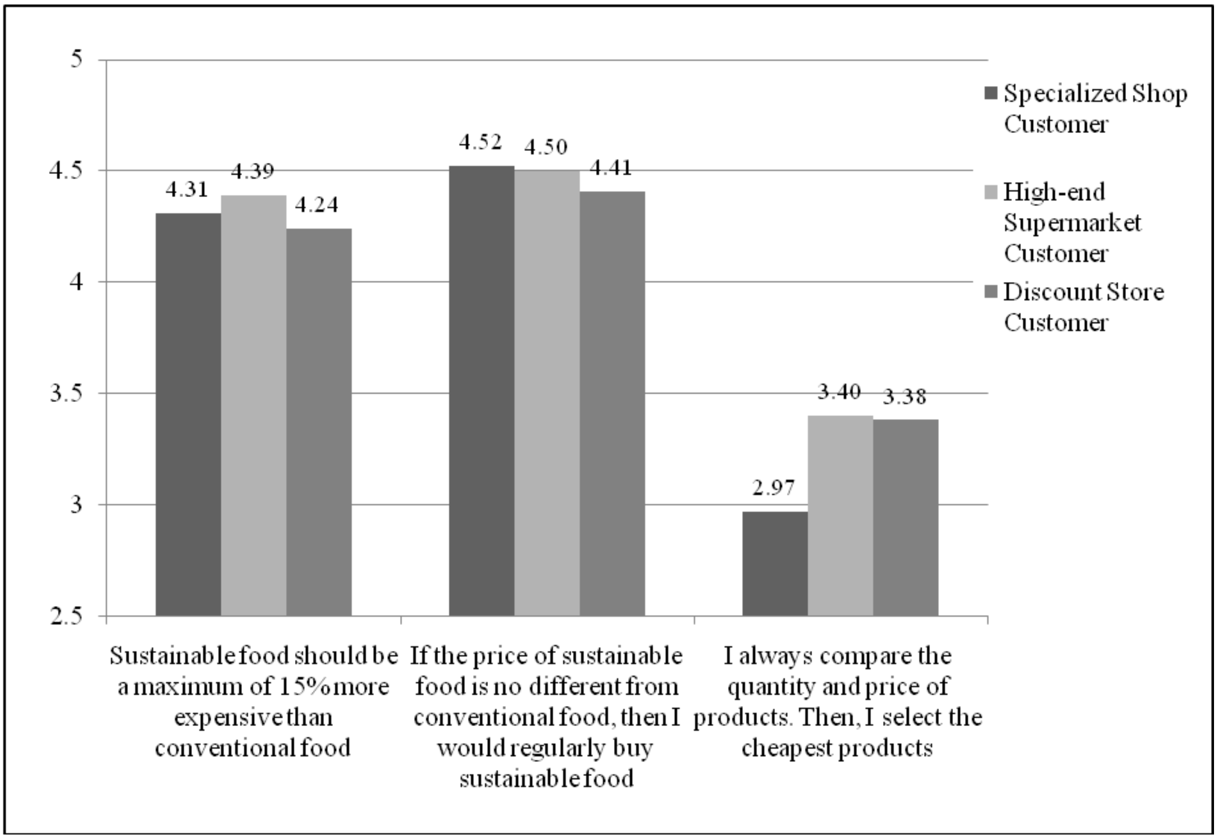


Figure 7-9 A Likert-type scale (5=agree strongly, 0= disagree strongly') on perspectives of consumers on price strategy

According to Figure 7-9, all groups of consumers strongly agreed that price is an important factor when buying sustainable food. Most of them thought that sustainable food should be a maximum of 15 per cent more expensive than conventional food (Table 12 of Appendix 15). Moreover, they would regularly buy more sustainable food if there were no price differences with conventional food. However, it seems that the price strategy will be more effective for customers of high-end supermarkets and discount stores than for the customers of specialized shops. Mean difference tests (Table 13 in Appendix 15) showed that there were significant differences in the perspective on price held by the three different groups of consumers. The post-hoc test found that the customers of specialized shops differed significantly from the other two groups, with the first group being less concerned with price. However, there was no difference between the other two groups. They were both likely to compare the quantity and price of products and then select the cheapest products on the shelf.

Having found the statistical differences between these groups of consumers, it is now possible to answer the hypothesis about their perspectives on information and price strategy. In general, all groups of consumers agreed that the four major strategies would increase the sale of sustainable food in Bangkok. However, when looking at the different groups' perspective on each strategy, it is possible to see strategies that better fit with the habits of specific groups of consumers. This section found that the specialized shop customers always look at certification standards and take health and environmental information into consideration. Thus, the information strategy is appropriate for this group. The customers of high-end supermarkets and discount stores both gave a high priority to price, always calculating the price of food before making a decision to buy. Thus, the price strategy is better suited for these consumers.

7.5 Discussion and Conclusions

The objective of this chapter has been to draw out a fuller picture of consumers in urban Thailand by using a quantitative survey. The respondents included 450 consumers in Bangkok. Following on from the focus group discussion results, it was assumed that there were three types of consumers in Bangkok: i) specialized shop customers who always bought food in green stores, ii) high-end supermarket customers who always bought their food in upscale supermarkets, and iii) discount store customers who always bought their food in discount stores. The awareness, practices and perspectives of these three groups of consumers were examined in more depth through this survey. Their profiles are briefly summarized below.

Specialized shop customers: '*Green and health-conscious consumers'*

Specialized shop customer respondents are older, with a high level of education and high incomes. This finding is consistent with Roitner-Schobesberger (2008) who found that consumers of organic vegetables in Bangkok tended to be older, hold academic degrees, and had a higher income than those not purchasing organic products. Specialized shop customers went shopping less frequently than the other two groups and often ate out. Most of them usually ate traditional food, such as rice and side dishes. Beside specialized shops, they also regularly shopped in supermarkets. They were not 'extreme' green consumers who only ate sustainable food. They tried to consistently eat sustainable food but also consumed conventional food, due to the restricted availability of sustainable food on offer and of time and money. Their first priority when buying food was safety. Their other concerns included: freshness, health, taste, environment, organic and price. They paid less attention to brands, animal welfare and appearance. Their main reason for eating sustainable food was health. Other, less important reasons included environmental friendliness and sustainability. Their knowledge about sustainable food was distinctly better than that of the other two groups of consumers and they readily distinguished the different levels of sustainability such as: hygienic, hydroponic, and organic. They also recognized the labels and standards for sustainable food. They bought various types of sustainable food; for example rice, fruits and vegetables, tea, noodles and prepared foods. They took note of standards and certification and read the information on the packets before making a decision to buy. Information about health and the environment was the main reason for convincing this group to buy sustainable food. They liked talking to shop staff and eagerly joined in with activities such as farm visits, yoga and cookery classes. Specialized shop customers understood why sustainable food was more expensive than conventional food. Generally, they did not look so much at the price when shopping for food but they still thought about the price of sustainable food as they said that they would buy it more frequently if the price was similar to conventional food.

High-end supermarket customers: '*Premium conventional consumers'*

High-end supermarket customers in Bangkok describe people who regularly shop at luxurious supermarkets, where the price of food is slightly higher than in ordinary supermarkets. This group sees themself as modern people who like the well-arranged facilities offered by more elegant supermarkets. They tend to be young adults with an average education. Most of them were either employees or students so their income levels varied from low to high. They spent the highest percentage of their income on food of all groups. Most of them regularly ate traditional food outside their homes and some ordered fast food to eat at home. Their favorite shopping places were supermarkets located close to their homes or their work places. When buying food, they gave priority to price and they paid a great deal of attention to freshness, safety and health. They were also concerned with taste, calories and appearance of products. They recognized some sustainable food standards but their knowledge about sustainable food was relatively low. They said that better information would make them buy more sustainable food. Compared to the other types of consumers, the customers of high-end supermarkets did not like talking to the shop personnel and they did not particularly appreciate friendly shop personnel. They would rather look at food, see the standards and make the decision to buy by themselves. Therefore, they were not interested in direct interactions with providers. While they had the purchasing power, they always compared the quantity and price of products to select the cheapest product.

Discount store customers: '*Conventional consumers'*
Discount store customers in this study describe people who regularly buy food at discount stores. Although they went shopping in cheap places, this did not mean that they were poor. They shop at discount stores because they like attractive promotions. Like the premium conventional consumers, this group included both young people and adults, and had an average education. Most of them were workers at companies and students who earned low to high income. Discount store customers normally ate traditional Thai food at home and some ate outside in food courts. They went shopping at modern retail outlets like supermarkets but also went to traditional fresh markets. The majority of discount store customers shopped at several stores, usually located close to their homes. They shopped more frequently than the other groups, usually more than five times a week. However, they spent less than half of their income on food. The first priority they had when buying food was price. Their other concerns when buying food included: health, safety, freshness, taste, appearance, calories and promotions. They did not pay attention to organic, hydroponic, community supported, brand, and animal welfare and did not know much about the definitions of and standards for sustainable food. They were more likely than high-end supermarket customers to engage in activities and with providers. They said that they would be more likely to buy sustainable food if they got more information from stores. Like high-end supermarket customers, the discount store customers always compared the quantity and price of products and selected the cheapest products. However, they said that they would buy sustainable food if it was available at the same price as conventional food.

Despite these differences, the survey also found many characteristics shared between the three groups. First, they were all modern consumers who shopped at modern retailers such as specialized shops and supermarkets. Secondly, the education level and income of these three types of consumers were quite similar: all of them can be categorized as middle class. Thirdly, their eating habits were similar in terms of primarily eating traditional Thai food both at home and outside.

As stated before, this study assumed that there were three groups of consumers. It is obvious that the customers of specialized shops differed from the other two groups in terms of their awareness, knowledge, and their perspectives on providers' strategies. They were more concerned about the safety of food and looked for information in the shop as well as at the products for certification standards and information on the package. Their knowledge about sustainable food was distinctly higher than that of the other two groups. Moreover, they realized the health benefits of sustainable food and understood the reasons for paying extra for safer food. This study did not find any clear distinction between the customers of high-end supermarkets and those of discount stores. They were rather similar in terms of their consumption of sustainable food and both had limited knowledge about sustainable food. They can both therefore be categorized as conventional consumers. This survey leads us to the conclusion that, in terms of sustainable food consumption, there are two groups of consumers in Bangkok: green consumers and conventional ones.

Chapter 8 Conclusions

8.1 Introduction

Global modernity is changing the role of food consumption around the world. Chapter 1 of this thesis sketched a general picture of the changing food consumption and provision in the present era of globalization. The general patterns of change include 1) increasing consumer demand for safe food produced in an environmentally friendly way and 2) a rapid rise of modern food retailers. The latter is a result of improved distribution logistics, urbanization, increased female participation in the labor force and direct foreign investment. Together these factors mean that food is nowadays no longer just produced by farmers in the vicinity of consumers, where they can easily observe how their food is produced. Today food can be produced in Asia and presented on the shelf of a supermarket in Europe (and vice versa). Since consumers can no longer directly observe how food is produced, they are more concerned about its safety. These concerns have increased by a series of food scandals, such as mad cow disease, bird flu, and the introduction of GMOs. They are concerned, worried and mistrustful of food because of its unknown origin and production methods applied. In response to these consumers' concerns, modern retailers in many countries are becoming actively involved in increasing their provision of sustainable and safe food.

This research focuses on urban Thailand, a newly industrialized country in Southeast Asia that is witnessing an increasing domestic demand for sustainable food products. Chapter 3 of this thesis argues that the general environmental awareness of consumers in Bangkok has rapidly increased, due to concerns about pesticide residues and their negative effects on human health. This has led to an increase in the demand for safe food. Chapter 3 also shows that the number of supermarkets in Bangkok has rapidly risen, influenced by the rapid growth of the economy, direct foreign investment, increasing population and the growth of the middle class. Food retailing in Thailand is also globalizing. Many stores of transnational supermarket chains such as Carrefour, Tesco Lotus, and Big C (Casino) have opened up around Bangkok. Nevertheless, although these general patterns of global change affecting consumers and providers are also reflected in Bangkok, there are particular processes of change due to specific national and regional circumstances. This research analyzed the process of change towards sustainable food provision and consumption in Bangkok by investigating how consumers and the system of provision interact in this domain.

The aim of this research was *to explore provider and consumer practices towards sustainable food in urban Thailand* and *to evaluate the different strategies used by providers to increase the level of sustainable food consumption in the urban centres of Thailand and the reactions of consumers towards these strategies.*

A conceptual framework for analysing sustainable food provision in Thailand was developed in Chapter 2. The Social Practice Approach (SPA) was selected as the most appropriate way to investigate the present situation of sustainable food consumption in urban Thailand. SPA focuses on providers and consumers and their interactions. If there is to be an increase in the overall levels of sustainable food consumption, it is important that providers change their strategies and consumers change their behaviour. Providers have the power to create a market by offering sustainable foods to consumers and to lead the other actors in the supply chain, such as farmers and producers. Consumers have an important role to play since they make the decision whether or not to buy the sustainable food offered to them by providers operating in a specific system of provision.

Applying the SPA to study sustainable food consumption in Thailand provided a useful framework for looking at the reality as it orients research by focusing on providers, consumers and the interactions between them. The SPA is also valuable when trying to understand why, how, and to what extent consumers change their shopping routines to become more sustainable.

Based on this conceptual framework, the research questions of this thesis were formulated as follows:

1. What is the situation of sustainable food consumption in the urban centres of Thailand?

   1.1 Who are the providers of sustainable food in the urban centres of Thailand?

      1.1.1 Who are the key actors involved in the different distribution channels?

      1.1.2 What are providers' perspectives and strategies towards supplying and information flows towards consumers in terms of sustainable food?

   1.2 What are the awareness, practices, and perspectives of consumers when buying and eating sustainable food?

   1.3 What are the interactions between providers and consumers in terms of sustainable food provisioning?

   1.4 What are the existing policies regarding sustainable food consumption in the urban centres in Thailand?

2. What are the possibilities for improving the level of sustainable food consumption?

   2.1What different strategies can be identified to increase sustainable food consumption?

   2.2 How can these strategies be better attuned with consumers?

Chapter 3 of this thesis reviewed the literature about food, food providers, and food consumers in urban Thailand, with the aim to answer research questions 1.1.1: the key actors involved in different distribution channels, 1.2: consumers in Thailand and 1.4: sustainable food policy in Thailand. Chapters 4 and 5 of the thesis focused on the providers. Chapter 4 mainly answered research question 1.1.2: providers' perspectives and strategies, as well as research question 1.3: the interactions between providers and consumers in terms of sustainable food. Through participant observation the first impression, information available on the shopping floor, and information at product level were investigated in selected specialized shops and supermarkets. Chapter 5 answered research question 2.1: strategies to increase sustainable food consumption. The possibilities for improving the level of sustainable food consumption in Bangkok were examined by looking at the strategies of different providers. A focus group discussion with representatives of specialized shops was organized to assess different strategies that could be applied when trying to sell more green food to consumers in Bangkok. The supermarket managers were interviewed in-depth about their organization's structure, sustainability profile, sustainability in the shop, and future developments. Chapter 6 and 7 of this thesis focused on consumers. Chapter 6 answered research question 2.2: how can the strategies be better attuned with consumers? Focus group discussions were set up with green consumers and general consumers to determine their views on the providers' strategies identified in chapter 5, in particular whether these would be effective and which strategy would be most likely to convince them to buy more sustainable food. Chapter 7 answered research question 1.2: awareness, practices, and perspectives of consumers when buying and eating sustainable food as well as research question 2.2: how can the strategies be better attuned with consumers? A quantitative research methodology was used in order to obtain a more complete picture of consumers in Bangkok. This survey was conducted among 450 consumers in Bangkok. Consumers were grouped according to the place where they regularly shop; specialized shops, high-end supermarkets, and discount stores. The awareness, practices and views of these groups of consumers towards sustainable food consumption were identified.

Outline of the chapter
This concluding chapter will summarize the answers to all research questions. Section 8.2 answers the research questions about providers (1.1.1, 1.1.2, 1.3, 1.4 and 2.1). The findings on providers and their strategies on sustainable food provision will also be discussed. Section 8.3 answers the research questions on consumers (1.2 and 2.2). The findings on consumers and the profile of green and conventional consumers will be discussed here. Section 8.4 provides the general conclusion to this thesis.

8.2 Sustainable Food Providers in Bangkok

Domestic food quality and safety issues, plus increasing pressure from international trading partners to comply with international standards have led the Thai government to review and strengthen its approach to food safety. In general, two Ministries are involved in the government's food safety policy. The Ministry of Agriculture and Co-operatives is responsible for agriculture and farming and the Ministry of Public Health is responsible for food processing, final products, and the marketplaces. Chapter 3 of this thesis illustrates the various kinds of safety standards that exist in Thailand. In general, the standards can be divided into two levels of safety: organic (chemical-free) and hygienic (chemically-safe) as well as two levels of certification, according to national and to international standards. In some supermarkets in Bangkok, international organic food standards such as those from USDA and IFOAM can be found. The governmental hygienic food standards such as Quality Mark can be found more widely in supermarkets and other distribution channels.

In Bangkok, there are two main channels that distribute sustainable foods: 1) specialized shops and 2) supermarkets. The specialized shops constitute a niche market while the supermarkets form the mainstream market. The specialized shops and the supermarkets differ in their views on sustainable food, their existing market shares, management systems and the connections they have with their suppliers and customers. Consequently, they develop their different strategies for introducing and promoting sustainable food in Bangkok. This section summarizes the research findings on the strategies that these two channels use to provide sustainable food to consumers and on the future of green food provision.

Specialized shops as 'small, specialized and beautiful'
The first specialized organic food shop in Bangkok was established in 2001. The number of specialized shops in Bangkok has since increased from 6 in 2008 to 25 in 2010 (Table 8-1). Compared to the total population in Bangkok, specialized shops can still be considered a very small food provision sector. In general, these specialized shops are small-scale, normally run by one owner and a few assistants. They are located in various areas of Bangkok, often in the houses of the owners, to avoid the need to purchase or rent a separate place to establish the

shops. Participant observation showed that specialized shops gave the impression of fitting into a particular lifestyle of peacefulness and living with nature. They provide a large number of sustainable foods in their shops. The range and number of sustainable food items found in these shops that can be considered as non-basic Thai items, such as tea, cereal, wheatgrass, and balsamic vinegar increased between the two surveys (2008 – 2010). During the same period the range and number of traditional available Thai foods such as sustainable rice, food ingredients, and honey decreased. Most specialized shops only sell foods selected for their sustainability and so do not have areas or shelves specifically dedicated to sustainable food products. Only one specialized shop separated the shelves into three levels of sustainability: organic (dark green), chemical-free (medium green) and chemically-safe (light green).

Table 8-1 Number of specialized shops, open markets and population in Bangkok, 2001-10

	2001	2008	2010
Number of specialized shops in Bangkok	1	6	25
Number of open markets organized by Green Market Network	0	1	6
Population of Bangkok	5,726,203	5,710,883	5,701,394

The focus group discussion with specialized shop owners presented in Chapter 5 showed that they mainly target green consumers in a personal way through verbal communication and friendly behavior by the shop personnel. Thanks to their close association with farmers and food producers, the specialized shops do not need food standard certification or official labeling to sell their food as sustainable. They can inform consumers directly about where and how their sustainable foods are produced, or in a more proactive way, they involve consumers in activities to strengthen their trust in the food supply chain. These activities include organizing farm visits to give farmers (in rural areas) and consumers (in urban areas) the opportunity to meet each other. They also organize activities such as yoga and cooking workshops to build close relationships with their consumers and to strengthen personalized trust. When the consumers trust the providers, the consumers will also trust the food that these providers offer them.

An important innovative strategy is that these specialized shops have formed a “Green Market Network” to work together as one organization and to empower the individual shop owners. The major tasks of this network are to procure sufficient and reliable sustainable food for the individual shops, to learn from each other’s experience and to expand the market for their products. The specialized shops believe that consumers are willing to learn more about sustainable food and will buy sustainable food based on the information offered to them. Therefore, specialized shops are proactive in giving information to the consumers, as shown by their efforts to organize fairs and open markets. In 2010 the network was able to set up an open market in five hospitals not only to sell their food but also to inform the patients and health-concerned people about the benefits of sustainable foods.

The focus group discussion with the specialized shop owners strongly suggested that they do not have the ambition to become a growth market for sustainable food or to reach consumers with lower incomes. Participant observation showed that the specialized shops have close and personal relationships with regular consumers, which only works well when the number of consumers is small. With larger numbers of consumers, the specialized shops could not maintain this strong point of direct and personal communication. The shop visits also showed that the supply of sustainable food within these shops is insufficient to attract wider groups of consumers. Instead of growing in terms of quantity, the specialized shops are following a strategy of '*small, specialized and beautiful*' to develop their green business. On the basis of this analysis we can expect that they will continue to play a role in providing sustainable food but will most likely remain niche-market actors for the foreseeable future.

Supermarkets entering the green competition
Chapter 3 showed that the number of supermarkets in Bangkok has rapidly increased from 109 in 1997 to 545 in 2010 (Table 8-2). These supermarkets can be divided into two groups; national and multinational supermarkets. As argued in Chapter 5, these two types have different organizational structures and sustainability targets. For the national supermarkets, the sustainability target emphasizes quality and safety. Upscale national supermarkets use contract faming with approved farmers or have agreements with suppliers to deliver certified sustainable food to them. They use standard certification to get the consumers to trust the quality and safety of their food. Some national supermarkets, such as Golden Place work closely together with farmers. Sustainable foods on offer in the Golden Place supermarket are from the Royal Project, designed to help hill tribes and marginal people through sustainable farming, which has been established for more than 30 years. The image of the Royal Project in the eyes of Thai people is one of high moral-standing and trust. As a result, the Royal Project brand alone (without official certification) is sufficient to convince consumers to trust the food. This practice places the Golden Place supermarket in-between the specialized shops and supermarkets. The strategy of multinational supermarkets is more linked with global dynamics. Their structure, as well as their sustainability policy is top-down, organized from their headquarters to the individual stores. Carrefour for example, has clear sustainability targets at the global level. Carrefour Thailand selects some elements among these global targets to be implemented in the local situation. For sustainable food, Carrefour Thailand has developed its own quality line intended to be more realistic and effective than organic standard certification, since these certifications are only relevant for foreigners and very rich people, who make up just a minority of their customers. The Carrefour quality line defines sustainability along safety criteria, such as chemical safe or GMO-free.

Since supermarkets provide both conventional and sustainable food, they do not try to convince their customers to make only green choices. The shop visits showed that most supermarkets set up a special corner for sustainable food as an alternative for consumers concerned about sustainability. The in-depth interviews with supermarket managers showed that the supermarkets also use information strategies to sell sustainable food but that they communicate with consumers in more indirect ways. The supermarkets tend to use standard certification and labels to inform their consumers, and make them more confident about the sustainable food on offer. As national regulations for sustainable food in Thailand are still only weakly developed, supermarkets develop their own quality signs (i.e. Carrefour Quality Sign) or symbol of reliance (i.e. Royal Project Brand) to make consumers trust their sustainable food.

Table 8-2 Number of major retailers in Bangkok from 1997 – 2010

Retailer	Type	Number of Stores*					
		1997	2002	2004	2007	2008	2010
National Retailer							
TOPs	Supermarket	27	52	48	92	62	88
Villa Market	Supermarket	8	8	8	11	12	15
Foodland	Supermarket	7	8	8	9	10	10
Jusco (Max-value)	Supermarket	8	14	10	7	10	10
Home Fresh Mart**	Supermarket	7	8	8	9	8	8
Gourmet Market**	Supermarket	Not yet open	Not yet open	1	2	2	3
Golden Place	Supermarket	Not yet open	4	4	4	4	5
Multinational Retailer							
Tesco Lotus	Hypermarket/ Discount Store	12	43	48	96	202	343
Big C	Hypermarket/ Discount Store	19	33	37	54	26	26
Carrefour	Hypermarket/ Discount Store	6	17	19	27	23	28
Makro	Hypermarket/ Discount Store	15	21	23	41	8	9
TOTAL		**109**	**208**	**214**	**352**	**367**	**545**

Note: * Every size of store is included.
** Operated by the same company

Chapter 5 shows that supermarket managers see the possible commercial value of sustainable food in the future, as a result of global tendencies that will also have an impact on consumers in Bangkok. From this analysis of the present position and strategies of the supermarkets, it can be expected and predicted that supermarkets in Bangkok will contribute to the on-going growth of sustainable food provision, because they need to guarantee their market shares. The multinational and upscale supermarkets are expected to take the lead in providing sustainable food to urban consumers in Bangkok in the future because they are able to provide sustainable food in a systematic way, using clear policies and practices developed especially for green provision.

8.3 Consumers in urban Thailand

Chapter 6 of this thesis argued that the consumers in Bangkok who regularly shop in the specialized shops are different from other consumers who shop elsewhere. The focus group meeting with specialized shops consumers showed that they have an optimistic view about the growth of sustainable food because it contributes to health and brings benefits to the environment and local communities. In the focus group session, green consumers gave top priority to information dissemination as a strategy to expand the consumption of sustainable food. They believed that consumers would be more willing to buy sustainable food if they knew the reasons for paying a higher price for it. However, the general consumers in Bangkok were different and less optimistic about the future of sustainable food. This focus group showed that the priority among conventional consumers – even those with a high income – was price.

Chapter 7 presented the results of a quantitative survey among 450 consumers aimed at better understanding the attitudes of general consumers in Bangkok. The results from the focus group discussion with green consumers led to the working assumption that consumers could be divided on the basis of where they shopped. It was evident that the customers of specialized shops were different from other consumers. As argued in Chapter 6 general consumers considered price when buying food. This led to the assumption that people who shopped in up-market supermarkets would be different from people who shopped in discount stores. As a result, consumers were classified in the survey as falling into one of three types: i) customers who always shopped in green stores, ii) high-end supermarket customers, who mostly shopped in upscale supermarkets, and iii) discount store customers who mostly shopped in discount stores. The awareness, practices, and views of these three groups of consumers were investigated through the survey.

The survey results confirmed the differences between green consumers (specialized shop customers) and conventional consumers (high-end supermarket customers and discount store customers) in terms of awareness and knowledge about sustainable food and their perspectives on the providers' strategies. However, the survey did not find a clear distinction between customers of high-end supermarkets and those of discount stores. Based on the survey results, we can only conclude that, in terms of sustainable food consumption, there are two groups of consumers in Bangkok: green consumers and conventional consumers. The following paragraphs summarize the commonalities and differences between these two groups.

Green consumers in Bangkok are older, with a high level of education and high incomes. The survey found that they are very *health concerned*. They look for information from the shop staff, the information bar in the shop and on the packaging. Green consumers have a substantial knowledge of sustainable food and they are able to recognize the definition of sustainable food and to distinguish between the certifications for organic, hydroponic and hygienic food. Moreover, they are aware of the health benefits of sustainable food, so they understand the reasons for paying extra for it. Conventional consumers in Bangkok are younger, also have a high level of education, but medium incomes. When buying food their first priority is price. They have little knowledge about sustainable food and cannot distinguish organic, hydroponic and hygienic foods and they also do not know much about food labeling.

The survey also showed that green and conventional consumers in Bangkok share several commonalities. Firstly, both of them shop in the modern retail outlets such as specialized shops and supermarkets. Secondly, although the education and income of green consumers is slightly higher than that of general consumers, they do not differ too much and both can be categorized as middle-class. Thirdly, they have similar eating habits and eat typical Thai foods such as rice and side dishes three times a day. They sometimes eat at home but also regularly eat outside their home. Finally, there is little difference in terms of their awareness about health, food safety, and the environment (Figure 8-1).

The most obvious difference between green and conventional consumers is knowledge about sustainable food, which includes understanding certification standards and the definition of sustainable food. The survey results presented in Chapter 7 clearly indicate that the knowledge of green consumers is relatively higher than it is among conventional consumers. The survey results also indicated that the green consumers have much more experience in shopping for most assortments of sustainable food (Figure 8-2).

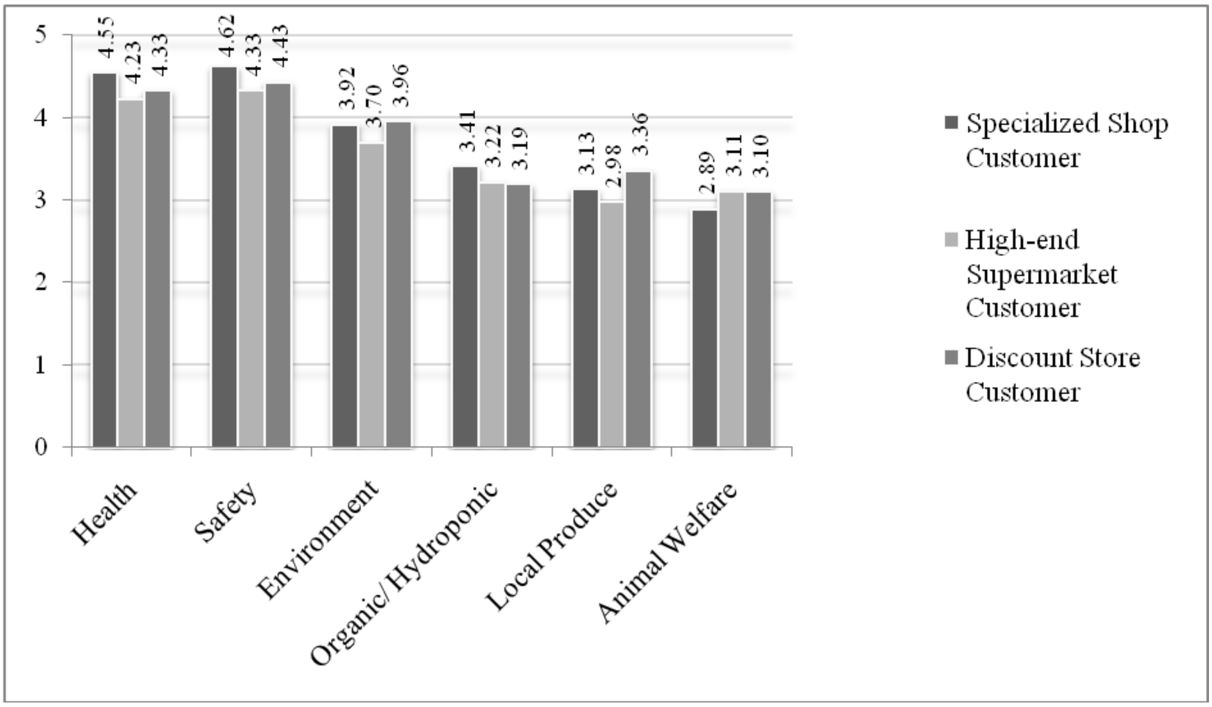


Figure 8-1 A Likert-type scale (5=agree strongly, 0= disagree strongly') on Awareness of consumers when buying food

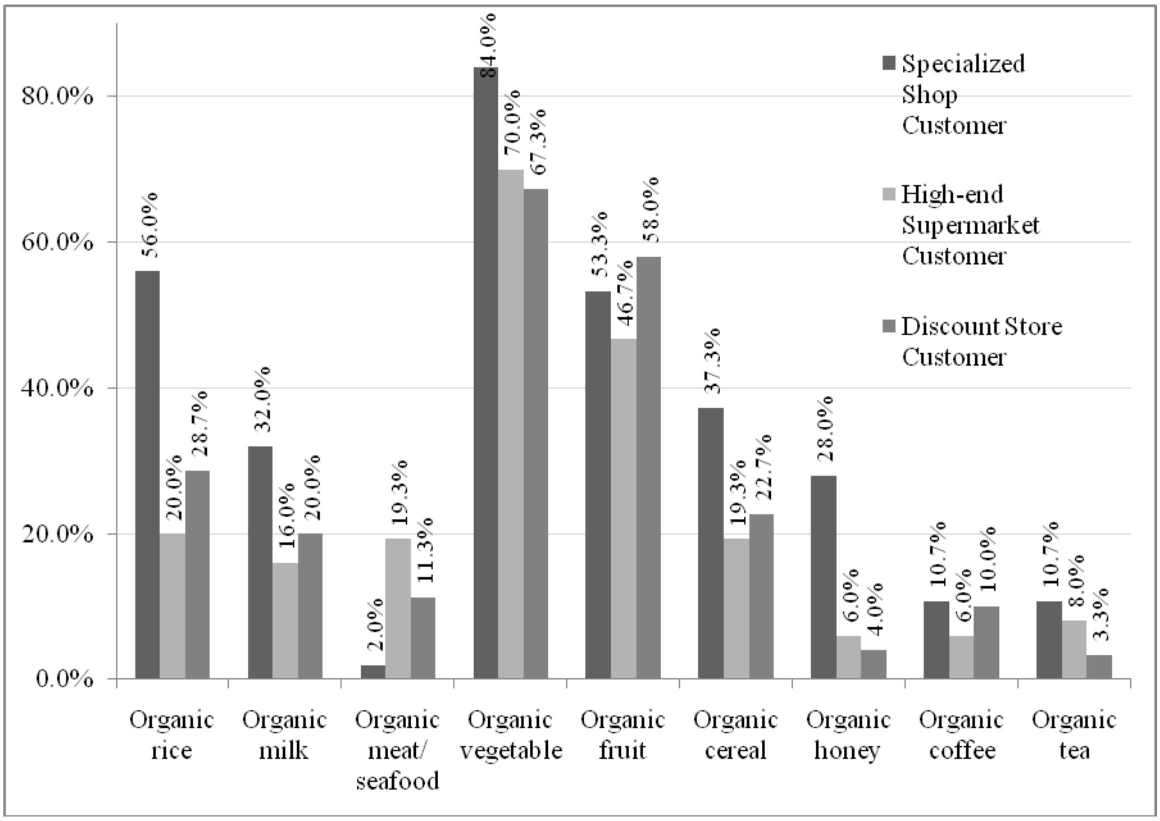


Figure 8-2 Experience of buying sustainable food among different consumer groups

Besides knowledge and experience, green consumers and conventional consumers have a different perspective on providers' strategies. The survey found that the green consumers look for health and environmental information more than the others. Thus, the information strategy matches well with them. Conventional consumers always calculated the price of food before making a decision to buy. Thus, the price strategy suits them better.

We can conclude from the focus groups and the survey that both green and conventional consumers in Bangkok are from the middle classes and have the purchasing power to buy sustainable food. Green consumers are concerned about health, have particular knowledge about sustainable food and regularly buy sustainable food from specialized shops. The conventional consumers also have the purchasing power to buy greener food and are also concerned about their health, but they still keep buying conventional food in supermarkets and discount stores. The next section proposes strategies for promoting sustainable food among conventional consumers in Bangkok.

8.4 Conclusion: make sustainable food more visible to the conventional consumers

The results from this research indicate that the specialized shops in Bangkok already perform well in presenting a green profile and selling green products to a specific group of consumers. However, if the overall consumption of sustainable food in Bangkok is to increase, conventional consumers need to engage in shopping for sustainable food. The supermarkets can play an important role in offering green food products to these consumers. At the moment, the assortment and proportion of sustainable food available in the supermarkets is still limited. In addition, the available sustainable food assortments do not match the eating habits of most consumers. All the groups of consumers in the survey usually eat Thai food, which normally consists of rice and side dishes. However, many sustainable food items currently available in the supermarket cannot be considered as basic Thai foods. These western sustainable foods do not fit the eating habits of most consumers in Bangkok and this gives most consumers in Bangkok little opportunity to go green.

The SPA framework suggested ways in which supermarkets can improve their green provisioning and make this more visible to consumers. Firstly, supermarkets can present themselves as a 'green' company by engaging in sustainable practices such as using energy saving light bulbs, recycling waste and offering a wider variety of sustainable food products in their outlets. These sustainable performances should be clearly displayed to the consumers to create the image of a green company. This green image can in turn be used by the supermarkets as a selling point, because consumers will be aware that they are buying food from a green company. However, supermarkets must be transparent in their performance by applying practices that are truly sustainable. It is also important *not* to overstate their green image, because otherwise, consumers will be suspicious. Secondly, sustainable food products must be placed in a prominent position, such as for example, a special corner at the entrance of the supermarket. Most supermarkets in Bangkok already have a separate corner or a separate shelf for sustainable food products. However, a separate product shelf does not work very well by itself. Information, provided through some form of information bar, should be available directly beside the shelf. If a supermarket offers certified sustainable food, the meaning of each certification must be shown to help consumers distinguish the level of sustainability and make the choice that fits their preference. Thirdly, since consumers in Bangkok consider sustainability as equivalent to health and safety, the information given to them must be focused on the health benefits of sustainable food. For example, it should communicate a story about the production process behind sustainable food, which does not allow the use of pesticides and chemical substances and is therefore safe for human health. Lastly, most consumers in Bangkok normally eat Thai food. Therefore, the supermarkets should offer more sustainable Thai food assortments, such as rice, various vegetables, meat and sauces, that fit the Thai eating habits. Since many consumers in Bangkok do not cook, the supermarkets could also offer pre-prepared, ready-to-eat sustainable food. If sustainable food is offered in ways that fit Thai consumers' lifestyle and habits, they will most likely buy more sustainable food and the level of sustainable food consumption will increase.

But as this study shows, supermarkets are not the only channel for sustainable food, which can also be provided through other channels that fit the lifestyle of consumers in Bangkok. Most consumers in Bangkok do not have enough time to cook and often eat outside their home in food courts and restaurants. At present these channels do not provide sustainable food (although there are a few organic restaurants in Bangkok), so this study did not include food courts and restaurants as sustainable food providers. It would be interesting to study how these channels might play a bigger role in offering sustainable food to consumers in Bangkok. This could include addressing ways in which food courts and restaurants could make sustainable food more visible to consumers and convince them to make greener choices in their everyday eating habits.

Reference

AC Nielsen (Thailand) (1999). Thailand Shopping Behaviour Study. Bangkok, AC Nielsen (Thailand).

Ajzen, I. (1991). "The theory of planned behavior." Organizational behavior and human decision processes **50**(2): 179-211.

Ajzen, I., M. Fishbein, et al. (1980). Understanding attitudes and predicting social behavior, Prentice-Hall Englewood Cliffs, NJ.

Alexander, N. and H. Myers (1999). "European retail expansion in South East Asia." European Business Review **99**(2): 91-104.

Apichit, P. (2008). Living Green Together:, Suan-Spirit Publisher.

Aprilia, A. (2005). Analysis of Sustainable Food in Bangkok, Thailand: Production, Consumption, and Communication. Environmental Policy Group. Wageningen, Wageningen University. **MSc**.

Aprilia, A. and K. Kantamaturapoj (2004). Sustainable Food Consumption vis-à-vis Kitchen of the World" as Thailand Government Policy.

Askew, M. (2002). Bangkok: Place, Practice and Representation. London and New York., Routledge.

Aurel, C., J. Daniel, et al. (2005). Thai Politics after the 2005 Parliamentary Election. Strategic Insights. **4**.

Bangkok Mass Transit System and Plc. (2003). BTS Sky Train.

Bangkok Metropolitan Administration (2005). Bangkok Administration

BangkokPost (2008). Airports still shut, trains not running. Bangkok Post.

Beck, U. and J. Willms (2004). Conversations with Ulrich Beck, Polity.

Becker, H. and B. Geer (1957). "Participant observation and interviewing: A comparison." Human Organization **16**(3): 28-32.

Big C (2010). "Big C Farm Fresh Hygienic." Retrieved 15 December 2010, from http://www.bigc.co.th/en/products/hygienic/.

Bioagricert-Thai (2010). "About Bioagricert Thailand." Retrieved 14 December 2010, from http://www.bioagricert-thai.org/about/index.php.

Blois, K., R. Mandhachitara, et al. (2001). "Retailing in Bangkok: an intriguing example of agglomeration." International Journal of Retail & Distribution Management **29**(10): 472-479.

Boccaletti, S. and M. Nardellab (2000). "Consumer willingness to pay for pesticide-free fresh fruit and vegetables in Italy." Management Review **3**: 297-310.

Boltanski, L. and L. Thévenot (2006). On justification: Economies of worth, Princeton Univ Pr.

Bouchard, T. (1976). "Field research methods: Interviewing, questionnaires, participant observation, systematic observation, unobtrusive measures." Handbook of industrial and organizational psychology: 363–413.

Boucher, G. (2003). "The theory of structuration and the politics of the third way." available on line at http://home. mira. net/-andy/blackwood/politics6. htm accessed **6**(3): 03.

Bourn, D. and J. Prescott (2002). "A comparison of the nutritional value, sensory qualities, and food safety of organically and conventionally produced foods." Critical reviews in food science and nutrition **42**(1): 1-34.

Brown, P. and L. Cameron (2000). "What can be done to reduce overconsumption?" Ecological Economics **32**(1): 27-41.

Bruyer, V., E. Zaccai, et al. (2003). Criteria and Impulses for Changes towards a Sustainable Consumption: Approach per Sector, First intermediary report

Bruyn, S. (1963). "The methodology of participant observation." Human Organization **22**(3): 224-235.

Bryman, A. (2004). "Social Research Methods." Oxford University Press, kapitel **1**(22): 70-75.

Burgos, S. (2007). "Avian Influenza Outbreaks in Southeast Asia Affects Prices, Markets and Trade: A Short Case Study." International Journal of Poultry Science **6**(12): 1006-1009.

Buzby, J. (2001). "Effects of food-safety perceptions on food demand and global trade." Changing structure of global food consumption and trade: 55–66.

Byers, P. and J. Wilcox (1991). "Focus groups: A qualitative opportunity for researchers." Journal of Business Communication **28**(1): 63.

Calder, B. (1977). "Focus groups and the nature of qualitative marketing research." Journal of Marketing Research **14**(3): 353-364.

Carrefour Thailand (2008). "Carrefour Quality Line." Retrieved 15 December 2010, from http://www.carrefour.co.th/eng/products/QualityLine.aspx.

Chanyapate, C. and I. Delforge (2004). "The politics of bird flu in Thailand." Focus on the Global South, Bangkok **20**.

Cialdini, R., C. Kallgren, et al. (1991). "A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior." Advances in experimental social psychology **24**(20): 1-243.

Commerce Intelligence of Thai Ministry of Commerce (2007). "Thai Organic Agriculture." Retrieved 10 September 2009, 2009, from http://www.organic.moc.go.th.

Constitution Drafting Commission (2007). Constitution of the Kingdom of Thailand, B.E.2550 (2007). T. S. o. t. H. o. Representatives. Bangkok, Bureau of Printing Services

CP (2007). "About Company: Number of Branches." Retrieved 20 February 2009, from http://www.7eleven.co.th/corp/about_history_timeline.php

CPF (2006). "CPF Operation." Retrieved 12 March 2008, from http://www.cpf.co.th/new/index.html?session=9f30b212c33222e34c18eadf7966b44f&client=99aa908efc888daf93e102aa9490cdcb&lang=en&site=cpf/frame.html&subsite=corporate/company03.html&theme=company01

Davies, A., A. J. Titterington, et al. (1995). "Who buys organic food?: A profile of the purchasers of organic food in Northern Ireland." British Food Journal **97**(10): 17-23.

De Vaus, D. (2002). Surveys in social research, Routledge.

Department of Agriculture Thailand (2010). "List of Organic Producers Certified by Organic Thailand." Retrieved 14 December 2010, 2010, from http://it.doa.go.th/organic/crop_search0.php.

Department of Fishery (2010). "Quality Mark." Retrieved 16 December 2010, 2010, from http://www.fisheries.go.th/quality/qmark/Qmark.htm.

Department of Internal Trade (2010). "Central Market for Agricultural Product." Retrieved 28 December 2010, 2010, from http://gis.dit.go.th/Service/Pr/file_promote/PDF/middle_market.pdf.

Department of Medical Science (2010). "Department of Medical Science's Safety Standard ". Retrieved 16 December 2010, 2010, from http://www.dmsc.moph.go.th/webroot/qa/Files/PAK_logo.htm.

Department of Provincial Administration (2009). Bangkok Population Statistic.

Dinham, B. (2003). "Growing vegetables in developing countries for local urban populations and export markets: problems confronting small scale producers." Pest Management Science **59**(5): 575-582.

Dixon, J., A. Omwega, et al. (2007). "The health equity dimensions of urban food systems." Journal of Urban Health **84**: 118-129.

Dunlap, R. (2002). Sociological theory and the environment: classical foundations, contemporary insights, Rowman & Littlefield Pub Inc.

Eischen, E., P. Prasertsri, et al. (2006). Thailand Organic Products: Thailand's Organic Outlook 2006, Bangkok: Global Agricultural Information Network, USDA Foreign Agricultural Service.

Ellickson, P. B. (2007). "The Evolution of the Supermarket Industry From A&P to Wal&Mart."

Ellis, W., V. Panyakul, et al. (2006). "Strengthening the export capacity of Thailand's organic agriculture." Paper submitted to An Asia Trust Fund Project financing by UNCTAD/WTO, European Commission, Ministry of Science and Technology, and the Ministry of Agriculture and Co-operatives, Thailand.

Ellis, W., V. Panyakul, et al. (2006). "Strengthening the Export Capacity of Thailand's Organic Agriculture: Final Report." An EU-International Trade Centre Asia Trust Fund Technical Assistance Project.

Fair Earth Farm (2010). "Bringing good food to good people from good farmers at good prices, and telling the story." Retrieved 18 October 2010, 2010, from http://www.fairearthfarm.com

Feeny, A., T. Vongpatanasin, et al. (1996). "Retailing in Thailand." International Journal of Retail & Distribution Management **24**(8): 38-44.

Fern, E. (2001). Advanced focus group research, Sage Publications, Inc.

Field, A. P. (2009). Discovering statistics using SPSS, SAGE publications Ltd.

Findlay, A., R. Paddison, et al. (1990). Retailing environments in developing countries, Routledge.

Fishbein, M. (1979). "A theory of reasoned action: Some applications and implications."

Food & Water Sanitation Division, D. o. H., Ministry of Public Health, (2009). "Clean Food Good Test Result ". Retrieved 2 December 2010, 2010, from http://203.157.64.28/ewt/foodsan_web/satiti.html?PHPSESSID=d8006ed1b57fe29fa30cd6b2e74d2082.

Food and Water Sanitation Division (2008). "Food and Water Standards and Projects." Retrieved 18 March 2008, 2008, from http://foodsan.anamai.moph.go.th/index.html#

Foodland (2008). "Company Profile." Retrieved 12 February 2009, from http://www.foodland.co.th/history.htm

Fuller, T., J. Edwards, et al. (1993). "Housing, stress, and physical well-being: evidence from Thailand." Social Science & Medicine **36**(11): 1417-1428.

Giddens, A. (1984). The constitution of society: Outline of the theory of structuration, University of California press.

Giddens, A. (1990). The consequences of modernity, Polity Press.

Gil, J., A. Gracia, et al. (2000). "Market Segmentation and Willingness to Pay for Organic Products in Spain." International Food and Agribusiness Management Review **3**: 207-226.

Gilg, A., S. Barr, et al. (2005). "Green consumption or sustainable lifestyles? Identifying the sustainable consumer." Futures **37**(6): 481-504.

Glover, D. and L. Ghee (1992). Contract farming in Southeast Asia: three country studies, Institute for Advanced Studies, University of Malaya, Kuala Lumpur, MY.

Goldman, A. (1974). "Outreach of consumers and the modernization of urban food retailing in developing countries." The Journal of Marketing: 8-16.

Goldman, A., R. Krider, et al. (1999). "The persistent competitive advantage of traditional food retailers in Asia: wet markets' continued dominance in Hong Kong." Journal of Macromarketing **19**(2): 126.

Goldman, B. and K. Clancy (1991). "A survey of organic produce purchases and related attitudes of food cooperative shoppers." American Journal of Alternative Agriculture **6**(02): 89-96.

Goleman, D. (2009). Ecological intelligence: How knowing the hidden impacts of what we buy can change everything, Random House, Inc.

Gorton, M., J. Sauer, et al. (2009). Investigating Thai Shopping Behaviour: Wet-Markets, Supermarkets and Food Quality, Agricultural Economics Society.

Gourmet Market (2008). "Company Profile." Retrieved 12 February 2009, from http://www.gourmetmarketthailand.com/en/aboutus/

Green Net (2008). "Overview of standard and certification in Thailand." Retrieved 24 August 2009, 2009, from http://www.greennet.or.th/consumers/t2500.html

Green Net (2009). "Organic Certification in Thailand." Retrieved 14 December 2010, 2010, from http://www.greennet.or.th/consumers/t2500.html.

Green Net / Earth Net Foundation (2005). Organic Agriculture Situation in Thailand 2005 Bangkok, Earth Net Foundation.

Green Net/ Earth Net Foundation (2005). Organic Agriculture Situation in Thailand. Bangkok, Earth Net Foundation.

Greenbaum, T. (1998). The handbook for focus group research, Sage Publications, Inc.

Grunert, K. (2005). "Food quality and safety: consumer perception and demand." European Review of Agricultural Economics **32**(3): 369.

Grunert, S. and H. Juhl (1995). "Values, environmental attitudes, and buying of organic foods." Journal of Economic Psychology **16**(1): 39-62.

Harvey, D. (2007). A brief history of neoliberalism, Oxford University Press, USA.

Herrnstein, R. (1990). "Rational choice theory." American Psychologist **45**(3): 356-367.

Horrigan, L., R. Lawrence, et al. (2002). "How sustainable agriculture can address the environmental and human health harms of industrial agriculture." Environmental health perspectives **110**(5): 445.

Hu, D., T. Reardon, et al. (2004). "The emergence of supermarkets with Chinese characteristics: challenges and opportunities for China's agricultural development." Development Policy Review **22**(5): 557-586.

Hutchins, R. and L. Greenhalgh (1995). "Organic confusion: sustaining competitive advantage." Nutrition & Food Science **95**(6): 11-14.

IFOAM (2009). "Growing Organic: Thailand Case Studies for Organic Agricultural Development." Retrieved 1 September 2009, 2009, from http://www.ifoam.org/growing_organic/2_policy/case_studies/thailand_regs_policy.php.

Israel, G. (1992). "Determining Sample Size." Tech. rep. University of Florida.

Jackson, T. (2005). Moving Sustainable Consumption: a review of evidence on consumer behavior and behavioral change. A report to the Sustainable Development. New York.

Jackson, T. and L. Michaelis (2003). "Policies for sustainable consumption." London: Sustainable Development Commission.

Jensen, K. and P. Sandøe (2002). "Food safety and ethics: the interplay between science and values." Journal of Agricultural and Environmental Ethics **15**(3): 245-253.

Kachondham, Y., K. Tontisirin, et al. (1992). Nutrition and health in Thailand: trends and actions, Institute of Nutrition, Mahidol University.

Kallgren, C., R. Reno, et al. (2000). "A focus theory of normative conduct: When norms do and do not affect behavior." Personality and social psychology bulletin **26**(8): 1002.

Kinsey, J. and B. Senauer (1996). "Consumer trends and changing food retailing formats." American Journal of Agricultural Economics **78**(5): 1187-1191.

Kitzinger, J. (1994). "The methodology of focus groups: the importance of interaction between research participants." Sociology of health & illness **16**(1): 103-121.

Kitzinger, J. (1995). "Introducing focus groups." BMJ: British Medical Journal **311**(7000): 299-302.

Komin, S. (1989). Social dimensions of industrialization in Thailand, Research Center, National Institute of Development Administration.

Konefal, J. (2007). Saving the Oceans via the Market: Social Movements in the Marketplace. Michigan, Michigan State University. **PhD**.

Kongchuntuk, H. (2002). Thailand’s Food Safety Project on Restaurants and Street Vendors: The “Clean Food Good Taste” Project. FAO/WHO global forum of food safety regulators. Marrakech, Morocco.

Korbee, D. (2008). Greening food provisioning:Sustainability strategies of Dutch supermarkets as communicated through the physical characteristics of the retail-outlets. Environmental Policy Group. Wageningen, Wageningen University. **MSc**.

Kosulwat, V. (2002). "The nutrition and health transition in Thailand." Public health nutrition **5**(1a): 183-189.

Kramol, P., K. Thong-ngam, et al. (2005). Challenges in developing pesticide-free and organic vegetable markets and farming systems for smallholder farmers in north Thailand, ISHS.

Krualee, S. and O. Napasintuwong (2004). "Factors Determining GM Soybean Milk Acceptance among Bangkok consumers."

Lang, T., D. Barling, et al. (2009). Food Policy: integrating health, environment and society, Oxford University Press.

Lawrence, G. and D. Burch (2007). Understanding Supermarkets and Agri-food Supply Chains. Supermarkets and agri-food supply chains: transformations in the production and consumption of foods, Edward Elgar Publishing, Inc.

Lewis, M. (1999). "Focus group interviews in qualitative research: a review of the literature." August **24**: 1999.

Lockie, S., K. Lyons, et al. (2002). "Eating ‘green’: motivations behind organic food consumption in Australia." Sociologia Ruralis **42**(1): 23-40.

Lohr, L. (2001). "Factors affecting international demand and trade in organic food products." Changing structure of global food consumption and trade: 67–79.

Malai, V. and W. Pitsuwan (2002). A Factor Analysis Approach for Understanding Attitude and Consumer Behavior Toward Supermarkets in the Bangkok Metropolitan Areas. ANZMAC 2002 Conference Proceedings.

Mandhachitara, R. (2000). Patterns of modernization in Thai retailing. ANZMAC 2000 Visionary Marketing for the 21st Century: Facing the Challenge.

Masera, D. (2001). Towards Sustainable Consumption in Latin America and the Caribbean. Background Paper for the Workshop on Sustainable Consumption for Latin America and the Carribean. Sao Paula, Brazil

McGee, T. (1971). The urbanization process in the Third World: Explorations in search of a theory, Bell.

McGlone, J. (2001). "Farm animal welfare in the context of other society issues: toward sustainable systems." Livestock Production Science **72**(1-2): 75-81.

McGrath, A. J. (1992). "Marketin'of the green." Sales and Marketing Management: 31–32.

Mergenthaler, M., K. Weinberger, et al. (2009). "The food system transformation in developing countries: A disaggregate demand analysis for fruits and vegetables in Vietnam." Food Policy **34**(5): 426-436.

Merton, R., M. Lowenthal, et al. (1990). The focused interview: A manual of problems and procedures, Free Press.

Micheletti, M., A. Føllesdal, et al. (2004). Politics, products, and markets: exploring political consumerism past and present, Transaction Pub.

Moen, D. (1997). "The Japanese organic farming movement: Consumers and farmers united." Bulletin of Concerned Asian Scholars **29**(3): 14-22.

Mol, A. and G. Spaargaren (2006). "Sociological perspectives for industrial transformation." Understanding Industrial Transformation: 33-52.

Morgan, D. (1997). Focus groups as qualitative research, Sage Publications, Inc.

Mutebi, A. (2007). "Regulatory responses to large-format transnational retail in south-east Asian cities." Urban Studies **44**(2): 357.

National Bureau of Agricultural Commodity and Food Standards (2003). "Quality Mark for Agricultural Products and Food ". Retrieved 16 December 2010, 2010, from http://www.acfs.go.th/qmark/index.html.

National Bureau of Agricultural Commodity and Food Standards (2010). "Quality Food Sign Application Principle." Retrieved 15 December 2010, 2010, from http://www.acfs.go.th/css/cssaSD07_1.php.

National Statistical Office (2008). "Summary of Agricultural Statistic in 2008." Retrieved 28 December 2010, 2010, from http://service.nso.go.th/nso/nsopublish/service/survey/agrichange.pdf.

National Statistical Office Thailand (2011). "Total monthly income per household in Greater Bangkok." Retrieved 14 January 2011, 2011, from http://service.nso.go.th/nso/nso_center/project/search_center/23project-th.htm.

Nelson, J. (1991). Marketing of pesticide-free vegetables in Bangkok. Bangkok, Asian Institute of Technology. **MSc**.

O'Doherty, J., K. Larsen, et al. (2001). Organic Foods and human health: Proceedings of the European Conference. Organic food and farming towards partnership and action in Europe. Copenhagen Danish Ministry of Food, Agriculture, and Fisheries 172-177.

O'Donovan, P. and M. McCarthy (2002). "Irish consumer preference for organic meat." British Food Journal **104**(3/4/5): 353-370.

Office of the Council of State of Thailand (2007). Constitution of the Kingdom of Thailand, BE 2550 (2007).

Office of the National Economic and Social Development Board (2009). "National Income of Thailand 2009." Retrieved 28 December 2010, 2010, from http://www.nesdb.go.th/Default.aspx?tabid=94.

Office of the Royal Development Projects Board (2009). "Classification of King Projects." Retrieved 21 October 2010, 2010, from http://www.rdpb.go.th/RDPB/front/Projects/AboutKingProjects. aspx?p=35.

Oosterveer, P. (2005). Global food governance, Wageningen Universiteit.

Oosterveer, P. (2011). Restructuring Food Supply: Sustainability and Supermarkets (Chapter 7) Food Practices in Transition. P. O. Gert Spaargaren, and Anne Loeber New York and London, Routledge. .

Oosterveer, P., J. Guivant, et al. (2007). Shopping for green food in globalizing supermarkets: sustainability at the consumption junction. Sage handbook on environment and society**:** 411–428.

Organic Agriculture Certification Thailand (2009). "ACT Organic Agricultural Standard." Retrieved 14 December 2010, 2010, from http://www.actorganic-cert.or.th/download/ACTstandard2009e_100205.pdf.

Ottman, J. A. (1994). Green marketing: challenges and opportunities for the new marketing age, NTC Business Books Lincolnwood, IL.

Panyakul, V. (2003). "Organic agriculture in Thailand." Production and export of organic Fruit and vegetables in Asia **3**(5).

Panyakul, V. (2003). Overview of Organic Agriculture in Asia.

Panyakul, V. (2004). Organic agriculture in Thailand. FAO, ed. Production and export of organic Fruit and vegetables in Asia. Bangkok, FAO**:** 75-81.

Pedersen, B. (2002). "Organic agriculture: the consumers' perspective." Organic agriculture. Sustainability, markets and policies **23**: 26.

Pingali, P. (2007). "Westernization of Asian diets and the transformation of food systems: implications for research and policy." Food Policy **32**(3): 281-298.

Pollution Control Department (2009). "Noise Level of Bangkok and Metropolitan in 2008." Retrieved 19 June 2009, 2009, from http://www.aqnis.pcd.go.th/noise/noise/BKK/BKK51.pdf.

Pollution Control Department: (2009). "Air Quality of Bangkok in 2008." Retrieved 19 June 2009, 2009, from http://www.aqnis.pcd.go.th/air/olddata/data_year/ambient51.pdf .

Posri, W., B. Shankar, et al. (2006). "Consumer attitudes towards and willingness to pay for pesticide residue limit compliant "safe" vegetables in northeast Thailand." Journal of International Food & Agribusiness Marketing **19**(1): 81-101.

Princen, T. (1999). "Consumption and environment: some conceptual issues." Ecological Economics **31**(3): 347-363.

Raven, P. H., R. Berg L., et al. (2008). Environment, John Wiley&Sons Inc.

Reardon, T. and R. Hopkins (2006). "The supermarket revolution in developing countries: policies to address emerging tensions among supermarkets, suppliers and traditional retailers." The European journal of development research **18**(4): 522-545.

Reardon, T., C. Timmer, et al. (2003). "The rise of supermarkets in Africa, Asia, and Latin America." American Journal of Agricultural Economics **85**(5): 1140-1146.

Regional Resource Centre for Asia and the Pacific (2003). "Bangkok State of the Environment." Retrieved 10 February 2011, 2011, from http://www.rrcap.unep.org/pub/soe/bangkoksoe03.cfm.

Rice, G., N. Wongtada, et al. (1996). "An investigation of self-efficacy and environmentally concerned behavior of Thai consumers." Journal of International Consumer Marketing **9**(2): 1-19.

Richter, T., O. Schmid, et al. (2000). Organic consumer in supermarkets-new consumer group with different buying behaviour and demands!, vdf Hochschulverlag AG an der ETH Zurich.

Robinson, N. (1999). "The use of focus group methodology—with selected examples from sexual health research." Journal of Advanced Nursing **29**(4): 905-913.

Roitner-Schobesberger (2006). Consumers' Perception of Organic Foods in Bangkok, Thailand. Wien, Universität für Bodenkultur. **MSc**.

Roitner-Schobesberger, B., I. Darnhofer, et al. (2007). "Consumer Perceptions of Organic Foods in Bangkok." Food Policy **33**: 112-121.

Roitner-Schobesberger, B., I. Darnhofer, et al. (2008). "Consumer perceptions of organic foods in Bangkok, Thailand." Food Policy **33**(2): 112-121.

Ruchirawat, M., D. Settachan, et al. (2007). "Assessment of potential cancer risk in children exposed to urban air pollution in Bangkok, Thailand." Toxicology letters **168**(3): 200-209.

Rudy, A. P. and J. Konefal (2007). "Nature, Sociology, and Social Justice." American Behavioral Scientist **51**(4): 495.

Rujopakarn, W. (2003). "Bangkok transport system development: what went wrong." Journal of the Eastern Asia Society for Transportation Studies **5**: 3302-3315.

Saengkaew, P. (1997). Social Research. Bangkok, Thammasart University.

Schaffner, D., B. Bokal, et al. (2005). "Food Retail-Price Comparison in Thailand." Journal of Food Distribution Research **36**(01).

Schwartz, S. (1973). "Normative explanations of helping behavior: A critique, proposal, and empirical test* 1." Journal of Experimental Social Psychology **9**(4): 349-364.

Setboonsarng, S., P. Leung, et al. (2006). "Contract farming and poverty reduction: the case of organic rice contract farming in Thailand." Poverty Strategies in Asia.

Shamdasani, P., G. O. Chon-Lin, et al. (1993). "Exploring green consumers in an oriental culture: role of personal and marketing mix factors." Advances in consumer research **20**(1): 488-493.

Shannon, R. (2009). "The transformation of food retailing in Thailand 1997–2007." Asia Pacific Business Review **15**(1): 79-92.

Shannon, R. and R. Mandhachitara (2008). "Causal path modeling of grocery shopping in hypermarkets." Journal of Product & Brand Management **17**(5): 327-340.

Smith, T. and R. Mandhachitara (2000). "The internationalization of retailing in Thailand." Retail Investment in Asia/Pacific: Local Responses & Public Policy Issues. The Oxford Institute of Retail Management: 173-190.

Spaargaren, G. (1997). The ecological modernization of production and consumption. Wageningen, Wageningen University. **PhD**.

Spaargaren, G. (2003). "Sustainable consumption: a theoretical and environmental policy perspective." Society & Natural Resources **16**(8): 687-701.

Spaargaren, G. (2005). Political consumerism for sustainable consumption practices. Ciência, Tecnologia e Sociedade**:** 135.

Spaargaren, G. and A. Mol (2008). "Greening global consumption: Redefining politics and authority." Global Environmental Change **18**(3): 350-359.

Spaargaren, G. and B. Van Vliet (2000). "Lifestyles, consumption and the environment: The ecological modernization of domestic consumption." Environmental politics **9**(1): 50-76.

Srithamma, S., J. Vithayarungruangsri, et al. (2005). Food Safety Programme: a Key Component for Health Promotion.

Stern, P. (2000). "New environmental theories: toward a coherent theory of environmentally significant behavior." Journal of social issues **56**(3): 407-424.

Stern, P., T. Dietz, et al. (1999). "A value-belief-norm theory of support for social movements: The case of environmentalism." Book Review Co-Editor International Editor Book Review Co-Editor **6**(2): 81.

Stewart, D., P. Shamdasani, et al. (2007). Focus groups: Theory and practice, Sage Publications, Inc.

Suan Spirit (2010). " Purposes of Suan Spirit Shop." Retrieved 20 October 2010, 2010, from http://www.suan-spirit.com/home_about_us.asp

Suksri, P., Y. Moriizumi, et al. (2008). Sustainable Agriculture in Thailand – An Evaluation on the Sustainability in Ethanol Production. Academic Frontier Project "Digital Asia Building: Regional Strategy Design Platform". i. A. D. P. S. D. 08-004, Digital Asia Regional Strategy Research Center.

Takeuchi, M. and K. Boonprab (2006). "Food Safety Situations in Thailand with Regard to their Thai's Food Safety Knowledge and Behaviors." Kasetsart J.(Nat. Sci.) **40**: 222-228.

Thai Green Market (2010). "Community Support Agriculture (CSA) System." Retrieved 18 October 2010, from http://www.thaigreenmarket.com/greenproducerpage.php?id=3.

Thai Rice Exporters Association (2010). "World Rice Trade." Retrieved 28 December 2010, 2010, from http://www.thairiceexporters.or.th/world%20rice%20trade.htm.

Thogersen, J. (1998). Understanding behaviors with mixed motives: An application of a modified theory of reasoned action on consumer purchase of organic food products., Working Paper 98-2. The Aarhus School of Business, Department of Marketing Faculty of Business Administration.

Thompson, G. (1998). "Consumer demand for organic foods: what we know and what we need to know." American Journal of Agricultural Economics **80**(5): 1113-1118.

Tokrisna, R. (2005). "Thailand changing retail food sector: consequences for consumers, producers, and trade." Department of Agricultural and Resource Economics Faculty of Economics, Kasetsart University, Bangkok, Thailand.

TOPs (2008). "Activity and Event: Central Food Retail's Go Green strategy Launching recyclable 'tree saver' brown bag to banish long-lasting plastic bags." Retrieved 19 February 2009, from http://www.tops.co.th/activity/activity_20080319_2.html

TOPs (2008). "All vegetables at TOPS are certified by The Department of Agriculture." Retrieved 16 December 2010, 2010, from http://www.tops.co.th/thai/activity/old_news13.html.

TOPs (2008). " Company Profile." Retrieved 12 February 2009, from http://www.tops.co.th/thai/companyprofile/branch.html

Torjusen, H., G. Lieblein, et al. (2001). "Food system orientation and quality perception among consumers and producers of organic food in Hedmark County, Norway." Food Quality and Preference **12**(3): 207-216.

Torjusen, H., L. Sangstad, et al. (2004). "European consumers' conceptions of organic food: A review of available research."

Traill, W. (2006). "The rapid rise of supermarkets?" Development Policy Review **24**(2): 163-174.

Udomkit, N. and A. Winnett (2002). "Fair trade in organic rice: a case study from Thailand." Small Enterprise Development **13**(3): 45-53.

United Nations Commission on Sustainable Development (1998). Consumer protection and sustainable consumption: new guidelines for the global consumer. Background paper for the United Nations Inter-Regional Expert Group Meeting on consumer protection and sustainable consumption: new guidelines for the global consumer. Sao Paulo, Brazil.

USDA (2008). "Organic Labeling and Marketing Information." Retrieved 14 December 2010, 2010, from http://www.ams.usda.gov/AMSv1.0/getfile?dDocName=STELDEV3004446.

van der Valk, O. and J. van der Roest (2009). "Traceability: a matter for private sector or government?".

Van Esterik, P. and C. U. P. i. I. Nutrition (1992). Women, work, and breastfeeding, NYS College of Agriculture and Life Sciences Statutory Colleges of the State University at Cornell University.

Vandergeest, P. (2006). Natural Markets: Remaking food and agriculture in Southeast Asia.

Vandergeest, P. (2009). "Opening the Green Box; How Organic became the standard for alternative agriculture in Thailand." Paper prepared for Berkeley Workshop on Environmental Politics.

Vanit-Anunchai, C. and E. Schmidt (2004). Consumer willingness to pay for environmentally friendly produced vegetables in Thailand, ISHS.

Vaughn, S., J. Schumm, et al. (1996). Focus group interviews in education and psychology, Sage Publications, Inc.

Verhoog, H., M. Matze, et al. (2003). "The role of the concept of the natural (naturalness) in organic farming." Journal of Agricultural and Environmental Ethics **16**(1): 29-49.

Vermeir, I. and W. Verbeke (2006). "Sustainable food consumption: exploring the consumer “attitude–behavioral intention” gap." Journal of Agricultural and Environmental Ethics **19**(2): 169-194.

Villa Market JP (2008). "Company Profile." Retrieved 12 February 2009, from http://www.villamarket.com/stores.html

Villa Market JP (2010). "Villa Market Locations." Retrieved 18 October 2010, from http://www.villamarket.com/stores.html

Viteri, L. (2010). Fresh fruit and vegetables: a world of multiple interactions, Wageningen. **PhD**.

Wallenborn, G. (2007). "How to attribute power to consumers? When epistemology and politics converge." Sustainable Consumption, Ecology and Fair Trade, London, Routledge: 57-69.

Wandel, M. and A. Bugge (1997). "Environmental concern in consumer evaluation of food quality." Food Quality and Preference **8**(1): 19-26.

Warde, A. (1997). Consumption, food and taste: Culinary antinomies and commodity culture, Sage publications.

Wiboonpongse, A. and S. Sriboonchitta (2004). "Regoverning markets: securing small producer participation in restructured national and regional agri-food systems in Thailand." Retrieved 11 December 2010, 2010, from http://www.regoverningmarkets.org/docs/Thailand_report_final.pdf.

Wiboonpoongse, A., S. Sriboonchitta, et al. (1998). "The roles of contract farming in agricultural transition in Thailand." The International Society for Southeast Asian Agricultural Sciences (ISSAAS) Journal **4**(2): 74-97.

Wier, M. and L. Andersen (2003). "Consumer demand for orgnic foods: Attitudes, values and purchasing behaviour."

Willer, H., M. Rohwedder, et al. (2009). Organic agriculture worldwide: current statistics. The world of organic agriculture. Statistics and emerging trends**:** 25–58.

Willer, H. and M. Yussefi (2007). "The world of organic agriculture-statistics and emerging trends 2007."

Wong, C. (1978). "A Model for Evaluating the Effects of Thai Government Taxation of Rice Exports on Trade and Welfare." American Journal of Agricultural Economics **60**(1): 65-73.

Yasmeen, G. (2000). "Not 'From Scratch': Thai food systems and 'public eating'." Journal of Intercultural Studies **21**(3): 341-352.

Yasmeen, G. (2006). Bangkok's foodscape: public eating, gender relations and urban change, White Lotus Press.

Yiridoe, E., S. Bonti-Ankomah, et al. (2005). "Comparison of consumer perceptions and preference toward organic versus conventionally produced foods: a review and update of the literature." Renewable Agriculture and Food Systems **20**(04): 193-205.

York, R., E. Rosa, et al. (2003). "Footprints on the earth: The environmental consequences of modernity." American Sociological Review **68**(2): 279-300.

Yue-Man, Y. (1990). "Changing Cities of Pacific Asian: A Scholarly Interpretation." The Chinese University of Hong Kong.

Zanoli, R., M. Bähr, et al. (2004). The European consumer and organic food, University of Wales, School of Management and Business.

Zhang, B. (2007). "Who will be more active in sustainable consumption? Evidence from China." International Journal of Environment and Sustainable Development **6**(4): 389-404.

Zhang, X., J. Yang, et al. (2005). Vegetable supply chains of supermarkets in Sichuan, China and the implications for supply chain management, ISHS.

Zimmerman, M. (1941). "The Supermarket and the Changing Retail Structure." The Journal of Marketing **5**(4): 402-409.

Appendix

Appendix 1 Checklist for shop visits

A	**First impressions**	**Parameters**
A1	Sustainability images in and around shop at shop level	A) Environmental /ecosystem concerns
		B) Animal welfare concerns
		C) Safe food/personal health concerns
		D) Social issues regarding international trade: fair trade
A2	Sustainability words in and around shop at shop level	A) Environmental /ecosystem concerns
		B) Animal welfare concerns
		C) Safe food/personal health concerns
		D) Social issues regarding international trade: fair trade
A3	Images and words referring to product quality in and around the shop at shop level	A) Taste
		B) Easy preparation
		C) Freshness
		D) food and lifestyle
A4	Images and words referring to shopping as a total experience in the shop	A) Coffee corner
		B) Availability to taste food
		C) Cooking on site
		D) Children’s play area

B	Shop level	Parameters
B1	Availability of information in shop above product level to make consumers aware of sustainable products	A) No information tools
		B) Posters
		C) Information pillars
		D) Folders
		E) Magazines
B2	Availability of tools to draw attention to the sustainable products	A) No tools
		B) Posters
		C) Information pillars
		D) Folders
		E) Magazines
B3	Which sustainability issues are mentioned and used to frame the sustainable products?	A) Environmental /ecosystem concerns
		B) Animal welfare concerns
		C) Safe food/Personal health concerns
		D) Social issues regarding international trade: fair trade
B4	Possibility of verbal information from shop personnel	A) No shop personnel available
		B) Available personnel not helpful in directing to sustainable products
		C) Available personnel helpful in directing to sustainable products
B5	Positioning of sustainable products in shop	A) Mixed positioning
		B) Hybrid positioning
		C) Separate positioning
B6	Presence of sustainable products in shop (Green Net/ Earth Net Foundation, 2005)	A) Rice
		B) Beans (soy bean, peanut)
		C) Processed Vegetable (Frozen, Can)
		D) Fresh Vegetable
		E) Fruit
		F) Herbal Tea
		G) Food ingredients (seasoning, coconut milk, sugar, flour)
		H) Wild products (wild honey)
		I) Processed Food (sesame butter, peanut butter)
		J) Medicinal herbs (Fat ta lai joan; Andrographis paniculata, Indian Mulberry; Cissus quadranggularis L.)
		K) Aquaculture (Tiger prawn, Fish)
		Total……………….types
B7	Promotion campaign of sustainable products	A) No promotion campaign
		B) Promotion campaign to specific products
		C) Promotion campaign for overall assortment of sustainable products

Products: Rice, Fresh Fruit and Vegetable, Processed Fruit and Vegetable/ Jam, Coffee and Tea, Bean, Food Ingredient, Butter, Honey, Meat

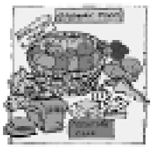
	Products Level	Parameters
C1	Number of available sustainable variants in this product group	A) No sustainable alternatives in this group
		B) Number of products…..
C2	Availability of sustainable products compared to all products of the product group	A) Less than 20 percent is sustainable
		B) Between 20 and 50 percent is sustainable
		C) Over 50 percent is sustainable
C3	Prominence (positioning) of sustainable products in shelves	A) Sustainable products have a less prominent place on the shelves
		B) Sustainable products have an equal place on the shelves.
		C) Sustainable products have a more prominent place on the shelves
C4	Prominence (shelf space) of sustainable products	A) The sustainable products are placed on a smaller area (e.g. less for each product compared to conventional products)
		B) Sustainable products have an equal area.
		C) Sustainable products are placed on a larger area (e.g. A larger number for each sustainable product compared to conventional products)
C5	Information on the packaging	A) No information
		B) Yes, story-line
		Label:
		Label:
		Label:
		Label:
C6	Consumer concerns appealed to on the packaging of the sustainable products	A) Environmental /ecosystem concerns
		B) Animal welfare concerns
		C) Safe food/personal health concerns
		D) Social issues regarding international trade: fair trade
C7	Information on the shelf	A) No information
		B) Yes, sign pointing at sustainable product
		C) Yes, information about kind of product
C8	Kind of information on shelf	A) Environmental /ecosystem concerns
		B) Animal welfare concerns
		C) Safe food/personal health concerns
		D) Social issues regarding international trade: fair trade

Appendix 2 List of Participants in Focus Group Discussion with Specialized Shops

No.	Name	Organization/ Shop/Restaurant	Position in the Meeting
1	MS.Kanang Kantamaturapoj	ENP/ WUR	Researcher
2	PhD.Pharmacist Natcha Phetdakul	The Collage of Innovation, Thammasart University	Moderator
3	MS.Athipaporn Lueng-On	Green Market Network	Moderator
4	MR.Kwanchai Kantamaturapoj	-	Assistant
5	MS.Mekhala Kantamaturapoj	-	Assistant
6	MS.Areerat Kantamaturapoj	-	Assistant
7	MS.Orapin Kantamaturapoj	-	Assistant
8	Mr.Prapoth Juprachakorn	-	Assistant
9	Ms.Umporn Tinchai	Green Shop: The Tree World Creator	Participant/ Group 1
10	Ms.Suree Saejia	Restaurant: Sa-ard Sawei	
11	Mr.Nattawut Kerdsuphab	Producer/ Shop in Thursday Market: Panomporn Farm	
12	Ms. Nonglak Sakpong	Producer/Supplier/ Shop in Thursday Market: Pa Tu Salad	
13	Mr.Pisit Wangsakkaratid	Interested person who will open green shop in the future	
14	Ms.Duenpen Thongsan	Green Shop: Suksitsiam	Participant/ Group 2
15	Ms.Sommai Jaijong	Restaurant: Maykaidee's vegetarian food	
16	Ms.Pothip Petchpori	Green Shop/ Restaurant/ Delivery: Health Me	
17	Ms.Nawapat Jindarattanaworakul	Producer/ Wholesale: Green Net	
18	Ms.Suphaporn Khamkaenkoon	Green Market Network/ Shop in Thursday Market	
19	Ms.Soraj Benjakusol	Green Shop: Dokmaiwan	Participant/ Group 3
20	Mr.Saman Plabkliang	Green Shop: The Tree World Creator	
21	Mr.Preecha Kittikul	Green Shop: Santi Asoke	
22	Ms.Marisa Siwayuth	Restaurant: Your Home	
23	Ms.Wassana Kerdsuphab	Producer/ Shop in Thursday Market: Panomporn Farm	

Appendix 3 PowerPoint Presentation used in Focus Group Discussion with Specialized Shops

Focus Group Discussion with Green Shops and Restaurants



11 November 2008 during 13.00-16.00 hr.
At Ruen Roi Chanum

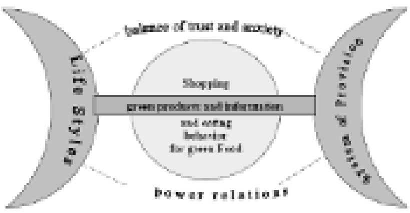
Kanang Kantamaturapoj, PhD Student
Environmental Policy Group
Wageningen University

PhD Research

- PhD project, a corroboration between Environmental Policy Group, Wageningen University together with NRC-EHWM of Chulalongkorn University
- "Risk Society": at present, consumers are risky of food borne from chemical substances, bird flu, GMOs, and Melamine contamination. As a result, consumers are more aware and selective of safe food.

PhD Research (Cont'd)

Social Practice Approach



PhD Research (Cont'd)

- Focus on the place where providers meet consumer
- In risk society where anything cannot be trusted, how providers make consumers trust in safety of food in their shop?

Objective of Focus Group Discussion

- Part of PhD project to develop a strategy to reach large groups of consumers in terms of sustainable food
- Share opinions among green shops and green restaurants in BKK in the aspects of: 1) Current Situation and 2) Strategy

What is Sustainable Food?

- Organic Food
- Health/Safe Food
- Non-chemical Food
- Pesticide Free Food
- Fair Trade Food

Sustainable food = food with extra value added that benefit for environment, health-safety, animal, and social

Sequence of Discussion

1. Discussion about sustainable food consumption in Bangkok
2. Presentation of strategies of other countries
3. Group work – Divide into Three Groups: Develop strategy to reach large group of consumers in Bangkok in terms of sustainable food

   - Each group presents their strategy

   - Plenary Discussion: Select and Integrate most effective strategy

7

1. Discussion about sustainable food consumption in Bangkok

⬇

2. Presentation of strategies of other countries

⬇

3. Group work – Develop Strategy

⬇

3.1 Present Strategy of each Group

⬇

4. Plenary Discussion: Integration of Strategy

Focus Group with Providers

⬇

Strategy to Sell More Sustainable Food

⬇

Focus Group with Consumers

⬇

Questionnaire Survey among 400 Consumers in BKK

Overview of Research Methodology

1. Discussion about sustainable food consumption in Bangkok

1.1 What types of sustainable food available in Bangkok?

1.2 Where do consumers buy sustainable food in Bangkok?

1.3 At present, who consume sustainable food?

1.4 When does consumer consume sustainable food?

1.5 Why does consumer decide to consume sustainable food?

Write the answers on the paper

2. PowerPoint Presentation: Strategies in other countries

11

1. Symbol/ Logo

12

2. Set up specific corner/ shelf for sustainable food products


Supercoop
Biologisch


Supercoop


Organic
3. Put products
in prominent
position

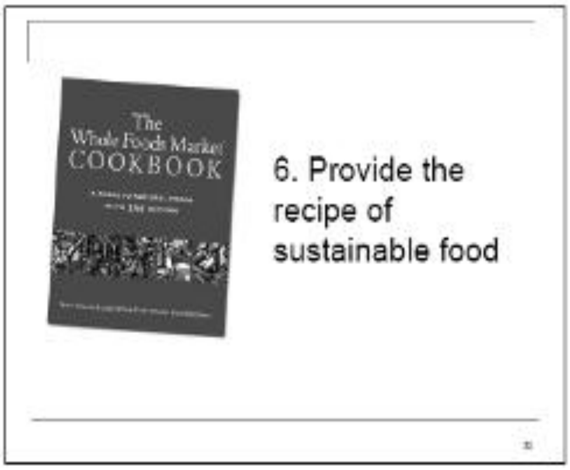

Melk
Melk


BIOLOGISCH VLEES


4. Provide
Variety of
products


TOFU RIJSTBAL
1,85


Boodschappen
5. Send Magazine to consumers
5.1 Provide info. Of sustainable food (item, price, promotion)
5.2 Give coupon of sustainable food


The Whole Foods Market COOKBOOK
6. Provide the recipe of sustainable food


food you can trust
7. Give information to customers
- Information tool bar
- Folder
- Shop Personnel
- Website

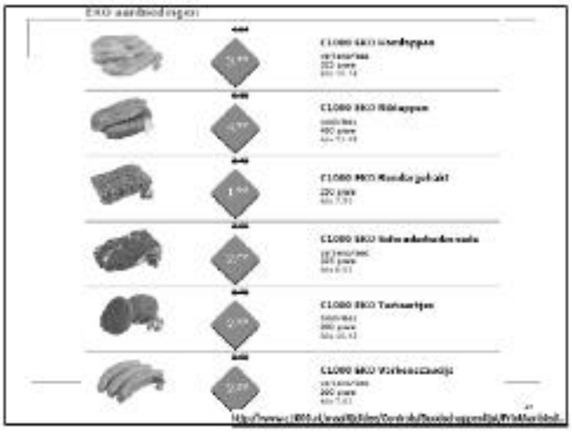

Margherita
BIOLOGISCH VLEES


Welkom bij C1000
Onze biologische producten
C1000
http://www.c1000.nl/


Supercoop
http://www.supercoop.nl/index.cfm?action=bewustleven.biologisch
Bio+
Klik hier


8. Price
Reduction


KLAPPER
4.69


EKO aanbiedingen

9. Bonus Card

- Apply Bonus Card
- Price Reduction and Collect Points for Premium

3. Group Work

3 Groups (1 group = 4 people)

1. Develop New Strategy to reach big group of consumer in terms of sustainable food
2. Why do you think that strategy will be effective?

(40 Minutes)

Presentation of Group 1

(5 Minutes)

Presentation of Group 2

(5 Minutes)

Presentation of Group 3

(5 Minutes)

Plenary Discussion

What is the BEST Strategy?

(15 Minutes)

Closing of Discussion

Thank you very much
for your kind corporation

Appendix 4
List of questions and answers from session one of the focus group discussion with specialized shops

What types of sustainable food available in Bangkok?

1. Rice
2. Herbal Tea
3. Bread
4. Sweet
5. Milk
6. Dairy Products
7. Egg
8. Ready-to-Eat Meal
9. Cereal
10. Coffee
11. Vegetable
12. Fruit
13. Bean
14. Juice
15. Herbal Drink
16. Food for each life elements (earth, water, wind, fire)

Where do consumers buy sustainable food in Bangkok?

1. Dok Mai Wan Shop (Bang Bon)
2. Local Vegetable Salad (Suan Phai) (Pa Tu Shop)
3. Suan Phai Sukkha Phab at Soi Arai and Piam Sukkha Phab Shop
4. Vegetarian Association (Klong Kum)
5. Ban Kaw Klong Shop (Pi Ya Rom Sport Club)
6. Kaw Klong Shop (Buddha Bucha)
7. Pao Pak (Sirirat Port)
8. Suk Sit Siam Shop (Fueng Nakorn Road)
9. Puen Sukkaphab (Ratchada Soi 4)
10. Eden Shop (Pracha Nukul Intersection)
11. Health Me Shop (Ratburana)
12. Green Market (Regent Building), every Thursday
13. Health Me Delivery (Bangkok Metropolitan Area)
14. Pue Khun Shop (Kanjanapisek)
15. Lemon Farm
16. Supermarket: Tops, FoodLand, Villa Market
17. Sunti Asoke Vegetarian Association at Chatuchak Park
18. Suan Phai Sukkaphab
19. Kaw Daeng Kang Ron (Nawamin Road)
20. Palangboon (Sunti Asoke, Nawamin Road)
21. Dae Chee Vit (Sunti Asoke, Nawamin Road)
22. Restaurant in Veerasu Shop (Food for Blood Group)
23. Restaurant in Bangkok Hospital
24. Spa Food Restaurant
25. Kaw Daeng Kang Ron (Bang Lampoo)
26. Mai Kai Dee Restaurant (Bang Lampoo)
27. Im Boon Restaurant (Sam Yan)

28. Thai Sabye Shop (Ratchada – TianRuam Mitr)
29. Anothai Restaurant (Rama IX)

At present, who consume sustainable food?
1. Patient
2. Housewife
3. General consumer
4. Vegetarian'
5. Consumers who are aware of health
6. Consumers who are aware of the environment
7. Family members (forced by mother)
8. Consumers who would like to support local economy
9. Officer
10. Consumers who want to be in a good shape

When does consumer consume sustainable food?
1. After acknowledging about sustainable food consumption
2. All the time, depend on occasion
3. Forever and all the time
4. After sickness and need to change consuming behavior
5. When consumers love themselves
6. When family members or relatives have consumed and informed about benefits
7. When consumer needs to nourish body
8. When consumer has health problems and needs to have safe food
9. When consumer would like to be beautiful
10. When consumer knows about value of sustainable productions and adverse effects of chemical production
11. When consumer earn enough money to buy sustainable food
12. When consumer is fed up with conventional medicine and would like to find other alternatives

Why does consumer decide to consume sustainable food?
1. More consumers have confronted with health problems.
2. The consumer would like to prevent sickness.
3. The consumer has aware of health and environmental concerns.
4. Sustainable food is a new trend.
5. The consumer would like to avoid contaminated food in conventional market.
6. More consumers have allergy problems due to accumulation of chemical contamination in food.
7. The consumer has engaged in Buddhist Meditation which encourages consuming vegetarian food and food from nature.
8. The consumer has congenital disease.
9. The consumer would like to avoid sickness.
10. Sustainable food is a medicine to prevent and cure sickness.
11. The consumer believes that sustainable food can prevent cancer.

Appendix 5

List of supermarket interviewees and details of interview

Supermarket	**Name of interviewee**	**Position**	**Date of interview**
1. Home Fresh Mart and Gourmet Market	Mr. Chairat Petchdakul,	General Manager Procurement Group (Fresh Mart)	25-02-2010
2. Carrefour	Mr. Karin Pattanasak	Quality Director	23-02-2010
3. Foodland	1) Mr.Somkid Sanprasertsuk 2) Ms.Raviporn Termvivatana	1) Produce Department Manager 2) Marketing Executive	22-02-2010
4. Golden Place	1) Mr.Boonchai Sangchan 2) Ms. Ameacha Pongpanpanu	1) Deputy Managing Director, Operation Department 2) Public Relation Manager	24-02-2010

Appendix 6
List of questions for supermarket interview

1. What is the structure of the retail/chain/company in relation to the goal-setting with respect to food safety, health and environment? Who is in charge at company level? How many people involved? When started?

2. What is your sustainable development strategy in general terms?

2.1 What is your overall sustainability profile?

2.2 How do you develop this and make it visible to consumers/customers both outside (advertisment) and inside the shop (the impression/image-management) in general terms?

3. What does sustainability in the shop look like?

4. How did the sustainable developmeny strategy/profile develop over the past 10 years and how will it further develop (or not) in the next 5 years or so?

5. What are the key obstacles/blockages for expanding and intensifying the sustainable development strategy of the company?

Appendix 7

List and description of participants in the focus group discussion with green consumers

Group	Name	Sex	Age	Occupation	Duration of being green
1	Ms.Pensuda Chuanchaisit	F	46	Private officer	4-5 years and more
	Ms.Soramon Tanyongwet	F	58	Private officer	4-5 years and more
	Ms.Duenpen Thongsan	F	32	Private officer	4-5 years and more
2	Ms.Korawee Kengsuphab	F	48	Private officer	2-3 years
	Ms.Supannee Suwanrat	F	39	Private business	2-3 years
	Ms.Patcharabun Danphowat	F	56	Private business	2-3 years
3	Ms.Somkid Kallaya	F	35	Private officer	1-2 years
	Ms.Areerat Piromwongse	F	59	Nurse	1-2 years
	Ms.Nasira Piromwongse	F	30	Master student	1-2 years
	Mr.Tawan Chantrasakawong	M	40	Private business	1-2 years

Appendix 8

List and description of participants in the focus group discussion with general consumers

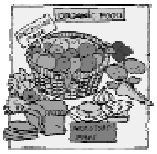
Group	Name	Sex	Age	Occupation	Income (THB/month)
1	Surapong Pibunthanachai	M	25	Private Officer	10,001-30,000
	Kittiporn Konram	M	26	Private Officer	10,001-30,000
	Jedsadang Pipatbanjong	M	25	Private Officer	10,001-30,000
	Suchira Bunsap	F	25	Private Officer	10,001-30,000
	Sitthipong Doungkaew	M	24	Private Officer	≤ 10,000
2	Visut Iamaram	M	48	Private Officer	≥ 70,000
	Pakkanan Siriwanon	F	27	Private Officer	30,001-50,000
	Pasicha Chaikaew	F	28	Private Officer	30,001-50,000
	Pimporn Charoensri	F	32	Private Officer	30,001-50,000
	Pakini Chaikaew	F	28	Private Officer	30,001-50,000
3	Jaturan Ongkananuwong	M	63	Retired	10,001-30,000
	Namchart Janaporn	M	58	Private Officer	10,001-30,000
	Taweesak Laosutsan	M	60	Government Officer	30,001-50,000
	Jureerat Ongkananuwong	F	61	Retired /Housewife	10,001-30,000

Appendix 9

PowerPoint Presentation for Focus Group Discussion with Consumers

Focus Group Discussion with Consumers

Topic: Effective strategies to increase sustainable food consumption in Bangkok



25 April 2009
13.00-16.00 hr
@5 Triple Two room, Narai Hotel, Bangkok

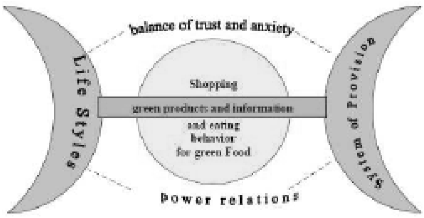
Kanang Kantamaturapoj, PhD Student
Environmental Policy Group
Wageningen University

PhD Research

- PhD project, a corroboration between Environmental Policy Group, Wageningen University together with NRC-EHWM of Chulalongkorn University
- "Risk Society": at present, consumers are risky of food borne from chemical substances, bird flu, GMOs, and Melamine contamination. As a result, consumers are more aware and selective of safe food.

PhD Research (Cont'd)

Social Practice Approach



PhD Research (Cont'd)

- Focus on place where providers and consumers meet e.g. retail shops, green shops, supermarket, restaurant
- In risk society which anything cannot be trusted, what can be done to make consumers trust in safety of food in the shop?

PhD Research (Cont'd)

- This Focus Group is a part of PhD research to find out effective strategies to increase sustainable food consumption in Bangkok.
- The strategies to sell sustainable food obtained from Focus Group with Providers are presented to the representatives of consumers in Bangkok.

The representatives of consumers refer to general consumers in Bangkok who have purchasing power to buy sustainable food no matter what they regularly consume sustainable food or not. The researcher would like to know that what kinds of strategies attract this group of consumers to purchase for sustainable food.

Focus Group with Providers

↓

Strategy to Sell More Sustainable Food

↓

Focus Group with Consumers

↓

Questionnaire Survey among 400 Consumers in BKK

Overview of Research Methodology

Objective of Focus Group Discussion

- To propose different options resulted in Focus Group Discussion with Providers
- To discuss about Pros and Cons of each option
- To give ranking on the options from the most to the least priority as well as to give reasons of those rankings

What is *Sustainable Food*?

- Organic Food
- Health/Safe Food
- Non-chemical Food
- Pesticide Free Food
- Fair Trade Food

Sustainable food = Food with extra value added that benefit for environment, health-safety, animal, and social

Examples of Sustainable Foods

Sequence of Focus Group Discussion

1. **Presentation of different options to sell sustainable food**
2. **Group work – Divide into Three Groups;**
   - 2.1 Discuss about Pros and Cons of presented options
   - 2.2 Rank the options and give reasons

1. Presentation of different options to reach big group of consumers in BKK in term of sustainable food (15 Minutes)

↓

2. Group work (45 Minutes)

↓

3. Group Work Presentation
(3 Groups, 10 Minutes per Group, Total = 30 Minutes)

↓

4. Plenary Discussion (15 Minutes)

TOTAL DURATION = 1.45 hours

1. PowerPoint Presentation:

Strategies to Sell Sustainable Food

From Focus Group Discussion with Providers

Major Group of Strategy

A: on the target group for sustainable food

B: on information and communication about sustainable food

C: on connecting providers and consumers

D: on the price of sustainable food


A: on the target group for sustainable food
A1) Extend target group
From Patient to Young Generation
And Create Brand
Xongdur
Organic


Dairy Home
Ice Cream
Dairy home


B: on information and communication about sustainable food
B1) Inform Consumers about Sustainable Food via Media, TV, Radio, Magazine, Website, etc.


FOOD
Tops market
Tops market
Tops market
Book, Magazine,
Leaflet
Exhibition Board


What is Organic?
Organic Crop Production
Organic Certification


go green organic
Eat Wise, Eat Organic
Know about ORGANIC
Website
http://www.tops.co.th/_osorganic/thai//reasons.html


organic
& Vegetable
In Season / February
Papaya


bioagricert
IFOAM
USDA ORGANIC
ORGANIC
JAS
AUSTRALIAN CERTIFIED ORGANIC
B2) Standard Certification i.e. Logo, Storyline


B3) Promote Social Sustainability
Fair Trade is a trading partnership, based on dialogue, transparency and respect, which seeks greater equity in international trade.
1.Creating opportunities for economically disadvantaged producers
2.Transparency and accountability
3.Capacity building
4.Promoting Fair Trade
5.Payment of a fair price
6.Gender equity
7.Working conditions
8.Child labour
9.Encourage environmental practice
10.Trade relations: concern for social, economic and environmental well-being of small producers
FAIR TRADE ORGANIZATION


WE DID NOT USE ANY CHEMICAL


C: on connecting providers and consumers
e.g. 1) delivery service
C1) Increase Distribution Channels
Besides niches market (green shop) and mainstream market (supermarket), providers try to open more distribution channels;


Organic at home
From Nature Direct to you
0-2439-4848 กด 3
www.toporganicproduct.com


Dairyhome
Farm shop
e.g. 2) restaurant


Organic Tea
e.g. 3) Fair Exhibition
Thai Fex 2008
Fair Exhibition; Thai Food Exhibition 2008 at Muaeng Thong Thani


Fair Exhibition: Thursday Market at Regent House


Fair Exhibition: Green Fair 2008 at Thammasart university


e.g. 4) Increase distribution channels by arranging Gift Basket contains;
- Healthy Food
- Special Food for DiabetesPatient
- Organic Food
- Toxic Free Vegetable


C2) Activities between Providers and Consumers to develop trust
e.g Farm visit


e.g. Cooking Class, Yoga Class


C3) Exhibition Campaign and Product Consultation (PC)

D) on the price of sustainable food

In general price of sustainable food is 30% - 100% more expensive than conventional food in the same shop.


e.g. 7 conventional cucumbers = 20 Baht,
3 organic cucumbers = 35 Baht


Conventional carrot = 57 Baht/ kg
Organic carrot = 69 Baht/ 500 gram or 138 Baht/ kg


Conventional Baby Corn = 20 Baht/ pack
Organic Baby Corn = 39 Baht/ pack

Conventional flour = 53 Baht/pack
Organic flour = 159 Baht/pack

Conventional brown rice noodle = 17 Baht/pack
Organic brown rice noodle = 65 Baht/pack



Conventional vinegar (500 ml) = 189 Baht/bottle
Organic vinegar (375 ml) = 332 Baht/bottle

Conventional muesli (375 g) = 99 Baht/box
Organic muesli (400 g) = 189 Baht/box

D1) Price Reduction

- In the provider's perspective, the strategies in presentation would be effective to reach big group of consumers in term of sustainable food.

So, we would like to know your response.

In the consumer's perspective, what strategies would be mostly effective for consumers in Bangkok?

2. Group Work

3 Groups (1 group = 4 people)

1.Discuss about Pros and Cons of presented strategies

2. Give ranking and give reasons why does the top three priorities would be effective for consumers in Bangkok

(45 Minutes)

Presentation of Group 1

(10 Minutes)

Presentation of Group 2

(10 Minutes)

Presentation of Group 3

(10 Minutes)

Plenary Discussion

In Consumer's Perspective, What strategy is the most effective for consumer in Bangkok?

(15 Minutes)

Closing of Discussion

Thank you very much
for your kind corporation

Appendix 10

Comparison of Price between Conventional and Sustainable Food on the Shelf of Supermarket in Bangkok in April 2009

Type of Food	Price of Conventional Food	Price of Sustainable Food
Cucumber	20 THB/ 7 cucumbers	35 THB/ 3 cucumbers
Carrot	57 THB/kg	138 THB/kg
Baby Corn	20 THB/Pack	39 THB/Pack
Flour	53 THB/Pack	159 THB/Pack
Brown Rice Noodle	17 THB/Pack	65 THB/Pack
Vinegar	189 THB/bottle (500ml)	332 THB/bottle (375 ml)
Muesli	99 THB/box (375 gram)	189 THB/box (400 gram)

Note: THB = Thai Baht

Appendix 11

Questionnaire Survey: Sustainable Food Consumption in Bangkok

PART 1: Eating and Shopping Habit / Consumer Lifestyle

1. What type of food do you usually eat in a day?

Type of Food	Breakfast	Lunch	Dinner
Rice with side dishes			
Noodle			
Fruit			
Vegetables			
Meat/ Fish			
Other (specify)			

2. Where do you eat food?

Type of Food	Breakfast	Lunch	Dinner
At home/ cooking by yourself			
At home/ mother or maid cook for you			
At home/ but prepared food			
At office/ buy prepared food			
Street stall/ Row house restaurant/ Night Market			
Food Court/ cafeteria			
Restaurant			
Other (specify)			

3. Where do you normally buy fresh/ dried food?

☐ Supermarket

☐ Fresh market

☐ Convenient store

☐ Mom and pop shop

☐ Other…………………...

4. What is your consideration when going shopping?

☐ Stick to one favorite supermarket chain

☐ One most nearby work place or home

☐ Other…………………...

5. How often do you go shopping?

☐ None/ Somebody else shopping for me

☐ 1-2 times a week

☐ 3-4 times a week

☐ ≥ 5 times a week

6. How many percentage of income do you spend for food?

☐ ≤ 15% ☐ 16- 30% ☐ 31-50%

☐ 51-70% ☐ 71 –80 % ☐ 81 –100 % ☐ ≥ 100 %

7. Which statement mostly fit your lifestyle?

☐ I always prepare and eat traditional food at home

☐ I always eat traditional food outside

☐ I like to eat fast-food at modern restaurant

☐ I like to buy (or order) western food to eat at home

8. When you buy food, you consider:
Please rank the priority and give a number between 1 and 6, of which 1 is strongly disagree and 6 is strongly agree.

No.	**Statement**	**Priority**	**Strongly Disagree**				**Strongly Agree**
A	Cost	………	1	2	3	4	5
B	Health	………	1	2	3	4	5
C	Safety	………	1	2	3	4	5
D	Environment	………	1	2	3	4	5
E	Organic/ Hydroponics	………	1	2	3	4	5
F	Local Produce	………	1	2	3	4	5
G	Brand Image	………	1	2	3	4	5
H	Freshness	………	1	2	3	4	5
I	Taste	………	1	2	3	4	5
J	Animal Friendly	………	1	2	3	4	5
K	Calories/ Beauty	………	1	2	3	4	5
L	Special Offers	………	1	2	3	4	5

9. Please define differentiation in terms of standard: Which ones refer to the standard for organic food? There are five standards of organic food in these following choices. Please select five standards representing organic food

☐ ☐ ☐

☐ ☐ ☐

☐ ☐ ☐

10. What is the definition of organic food?

☐ Insecticide and Herbicide use in acceptable level, no chemical fertilizer use, no hormone use

☐ No insecticide, No Herbicide but allow chemical fertilizer use and hormone use

☐ No insecticide, No Herbicide, No chemical fertilizer use but allow hormone use

☐ No insecticide, No Herbicide, No chemical fertilizer use, No hormone use

11. What organic products you have ever seen in the shop?

☐ Rice	☐ Milk	☐ meat/ seafood	☐ Vegetable
☐ Fruit	☐ Cereal	☐ Honey	☐ Coffee
☐ Tea	☐ Others………………………		

12. What organic products you have ever bought in the shop?

☐ Rice ☐ Milk ☐ meat/ seafood ☐ Vegetable

☐ Fruit ☐ Cereal ☐ Honey ☐ Coffee

☐ Tea ☐ Others………………………

13. What organic products do you want to find in the shop?

☐ Rice ☐ Milk ☐ meat/ seafood ☐ Vegetable

☐ Fruit ☐ Cereal ☐ Honey ☐ Coffee

☐ Tea ☐ Others………………………

14. How many percent different between sustainable and conventional food would you accept?

☐ 0-15% ☐ 16-30% ☐ 31-50%

☐ 51-75% ☐76-100% ☐ ≥ 100% as long as sustainable food have more benefit

PART 2: Preferences on Food Provision: Providers' Strategies

15. What is your opinion toward these following providers' strategies?
Please give a number between 1 and 6, of which 1 is strongly disagree and 5 is strongly agree.

No.	Strategies	Strongly Disagree				Strongly Agree	CODE
A	Supermarket should promote sustainable food to teenagers because they can convince their parents and friends to eat more sustainable food.	1	2	3	4	5	(….)
B	Information about benefit of sustainable food should be published in TV, newspaper, radio, etc.	1	2	3	4	5	(….)
C	Standard certification i.e. logo, storyline makes consumer trust in and decide to buy sustainable food.	1	2	3	4	5	(….)
D	Consumer will buy more sustainable food if they know that the food is locally grown and made by the community.	1	2	3	4	5	(….)
E	I would buy sustainable food via delivery service.	1	2	3	4	5	(….)
F	I will buy sustainable food more often if I have activities with providers such as farm visit, cooking class, yoga class.	1	2	3	4	5	(….)
G	I would buy sustainable food if somebody are there in the store to give me information	1	2	3	4	5	(….)
H	Sustainable food should be maximum 15% more expensive than conventional food.	1	2	3	4	5	(….)

PART 3: Sustainable Food Consumption Practice in Relation to Providers' Strategy

16. In what extent you would buy and eat more sustainable food?

Please give a number between 1 and 6, of which 1 is strongly disagree and 5 is strongly agree.

No.	Statement	Strongly Disagree				Strongly Agree	CODE
A	I eat sustainable food because I have modern lifestyle and fashionable.	1	2	3	4	5	(….)
B	If I got more and better information, I'd buy sustainable food more often.	1	2	3	4	5	(….)
C	I eat sustainable food because it makes me healthy.	1	2	3	4	5	(….)
D	I eat sustainable food because it because it is good for the environment and local community.	1	2	3	4	5	(….)
E	If supermarket provides certified food, then I will regular buy the food there.	1	2	3	4	5	(….)
F	Friendliness and good service of shop personnel make me decide to buy sustainable food.	1	2	3	4	5	(….)
G	If the price of sustainable food is similar to conventional food, then I would regularly buy sustainable food.	1	2	3	4	5	(….)
H	Sustainable food consumer is conservative and would like to go back to the past and live with nature.	1	2	3	4	5	(….)
I	Television and newspaper always publish overstatement; so they do not influent my decision of buying sustainable food.	1	2	3	4	5	(….)
J	I don't believe that sustainable food makes me healthier because the nutrition is not different from conventional food.	1	2	3	4	5	(….)
K	I don't know how sustainable food is related to the environment.	1	2	3	4	5	(….)
L	When buying sustainable food, I never look at standard and certification.	1	2	3	4	5	(….)
M	I don't like talking with the shop personnel.	1	2	3	4	5	(….)
N	I always compare the quantity and price of products. Then, I would select the cheapest products on the shelf.	1	2	3	4	5	(….)

PART 4: General Information of the Respondents

17. Sex

☐ Male

☐ Female

18. Age

☐ 15 – 19 years	☐ 20 – 29 years	☐ 30 – 39 years
☐ 40 – 49 years	☐ 50 – 59 years	☐ ≥ 60 years

19. Education Level

☐ No education	☐ Primary School
☐ Lower Secondary School	☐ Upper Secondary School/ High School
☐ Vocational School	☐ Bachelor
☐ Master and Above	

20. Occupation

☐ Employee	☐ Housewife
☐ Government officer	☐ Merchant
☐ Student	☐ State enterprise officer
☐ Farmer	☐ Others………………………

21. Income (Baht per Month)

☐ ≤ 10,000	☐ 10,001 – 20,000
☐20,001 –30,000	☐ 30,001 –50,000
☐ 50,001 –70,000	☐ ≥ 70,001

22. Living Status in Household

☐ Living alone in Bangkok

☐ Living with family/ relatives

- number of children…….persons (≤ 15 years old)
- number of adults…….persons
- number of elders…….persons (≥ 60 years old)
- number of patients/disables…….persons

☐ Living with friend

*** Thank you very much for your kind corporation ***

Appendix 12

Variables and values of variables for consumers' attitude

Variables	**Value of variables**
AWARENESS	
<u>Question 8 in part 1 of the questionnaire:</u> Consideration when buying food A) Cost B) *Health** C) *Safety** D) *Environment** E) *Organic/ Hydroponics** F) *Local Produce** G) Brand image H) Freshness I) Taste J) *Animal Welfare** K) Beauty L) Special Offers	☐ Strongly disagree (1 scoring) ☐ Disagree (2 scoring) ☐ Neither agree nor disagree (3 scoring) ☐ Agree (4 scoring) ☐ Strongly agree (5 scoring)
KNOWLEDGE	
<u>Question 9 in part 1 of the questionnaire:</u> Knowledge of organic certification	☐ Low (able to determine 1 organic standard) ☐ Moderate (able to determine 2-3 organic standard) ☐ High (able to determine 4-5 organic standard)
<u>Question 10 in part 1of the questionnaire:</u> Definition of organic food	☐ Able to give the correct definition of organic food (1 score) ☐ Unable to give the correct definition of organic food (0 score)

Note: * refers to green awareness

Appendix 13

Variables and values of variables for consumers' practice

Variables	Value of variables
EATING LIFESTYLE	
Question 7 in part 1 of the questionnaire: Eating lifestyle	☐ I always prepare and eat traditional food at home ☐ I always eat traditional food outside ☐ I like to eat fast-food at modern restaurant ☐ I like to buy (or order) western food to eat at home
SHOPPING HABIT	
Question 4 in part 1of the questionnaire: Consideration when going shopping	☐ Stick to one favorite supermarket chain ☐ One most nearby work place or home
Question 5 in part 1of the questionnaire: Frequency of shopping	☐ None/ Somebody else shopping for me ☐ 1-2 times a week ☐ 3-4 times a week ☐ ≥ 5 times a week
Question 6 in part 1of the questionnaire: Percentage of income do you spend for food	☐ ≤ 15% ☐ 16- 30% ☐ 31-50% ☐ 51-70% ☐ 71 –80 % ☐ 81 –100 % ☐ ≥ 100 %
EXPERIENCE OF BUYING SUSTAINABLE FOOD	
Question 12 in part 1of the questionnaire: Experience of buying these organic food; rice, milk, meat/ seafood, vegetable, fruit, cereal, honey, coffee, tea	☐ Never buy ☐ Used to buy

Appendix 14

Variables and values of variables for consumers' perspective on providers' strategies

Variables: Sentences from Part 2 and 3 of the Questionnaire	Value of Variables				
	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
On Target Group of Consumers					
Supermarket should promote sustainable food to teenagers because they can convince their parents and friends to eat more sustainable food.					
I eat sustainable food because I have modern lifestyle and fashionable.					
Sustainable food consumer is conservative and would like to go back to the past and live with nature.					
On Information about Sustainable Food					
Information about benefit of sustainable food should be published in TV, newspaper, radio, etc.					
If I got more and better information, I'd buy sustainable food more often.					
I eat sustainable food because it makes me healthy.					
I don't believe that sustainable food makes me healthier because the nutrition is not different from conventional food.					
I don't know how sustainable food is related to the environment.					
Television and newspaper always publish overstatement; so they do not influent my decision of buying sustainable food.					
Standard certification i.e. logo, storyline makes consumer trust in and decide to buy sustainable food.					
If supermarket provides certified food, then I will regular buy the food there.					
When buying sustainable food, I never look at standard and certification.					
Consumer will buy more sustainable food if they know that the food is locally grown and made by the community.					
I eat sustainable food because it because it is good for the environment and local community.					
On Connecting Provider and Consumer					
I would buy sustainable food via delivery service.					
I will buy sustainable food more often if I have activities with providers such as farm visit, cooking class, yoga class.					
I would buy sustainable food if somebody are there in the store to give me information					
Friendliness and good service of shop personnel make me decide to buy sustainable food.					
I don't like talking with the shop personnel.					
On Price of Sustainable Food					
Sustainable food should be maximum 15% more expensive than conventional food.					
If the price of sustainable food is similar to conventional food, then I would regularly buy sustainable food					
I always compare the quantity and price of products. Then, I would select the cheapest products on the shelf.					

Appendix 15
Statistical Result

Table 1: Demographics of the respondents

Demographics		Type of consumer: Specialized Shop Customer (n = 150)	High-end Supermarket Customer (n = 150)	Discount Store Customer (n = 150)	Total (n = 450)
Sex	male	36.7%	40.0%	20.0%	32.2%
	female	63.3%	60.0%	80.0%	67.8%
	Total	100.0%	100.0%	100.0%	100.0%
Age	15 – 19 years	0.7%	26.7%	18.0%	15.1%
	20 – 29 years	24.0%	40.7%	42.0%	35.6%
	30 – 39 years	34.0%	18.0%	18.7%	23.6%
	40 – 49 years	26.0%	7.3%	12.7%	15.3%
	50 – 59 years	12.7%	5.3%	8.0%	8.7%
	more than 60 years	2.7%	2.0%	0.7%	1.8%
	Total	100.0%	100.0%	100.0%	100.0%
Education	primary school	0%	0%	7.3%	2.4%
	lower secondary school	1.3%	2.7%	8.0%	4.0%
	high school	1.3%	10.0%	11.3%	7.6%
	vocational school	5.3%	4.7%	4.7%	4.9%
	bachelor degree	46.7%	69.3%	60.7%	58.9%
	Master degree and above	45.3%	13.3%	8.0%	22.2%
	Total	100.0%	100.0%	100.0%	100.0%
Occupation	employee/ private officer	67.3%	34.0%	40.7%	47.3%
	housewife	3.3%	4.7%	7.3%	5.1%
	government officer	8.7%	4.0%	4.0%	5.6%
	merchant	4.7%	6.7%	11.3%	7.6%
	student	2.7%	38.0%	32.7%	24.4%
	state enterprise officer	6.0%	3.3%	0%	3.1%
	others	7.3%	9.3%	4.0%	6.9%
	Total	100.0%	100.0%	100.0%	100.0%
Income (Baht per month)	10,000 and less than	5.3%	40.7%	58.7%	34.9%
	10,001 – 20,000	20.7%	20.7%	22.7%	21.3%
	20,001 –30,000	18.7%	16.0%	8.0%	14.2%
	30,001 –50,000	24.0%	15.3%	6.0%	15.1%
	50,001 –70,000	19.3%	4.0%	4.7%	9.3%
	above 70,001	12.0%	3.3%	0%	5.1%
	Total	100.0%	100.0%	100.0%	100.0%

Table 2 Consumer differences in awareness when buying food

Awareness	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Cost/ price	0.003/1*	**3.73**	4.00	**4.11**
Health	0.008/2*	**4.55**	**4.23**	4.33
Safety	0.021/2*	**4.62**	**4.33**	4.43
Environment	0.035/1*	3.92	**3.70**	**3.96**
Organic	0.168/1	3.41	3.22	3.19
Local produce	0.008/1*	3.13	**2.98**	**3.36**
Brand image	0.004/2*	**2.73**	**3.04**/a	**3.10**/a
Freshness	0.002/2*	**4.66**	**4.32**/a	**4.39**/a
Taste	0.054/1	4.40	4.17	4.19
Animal	0.137/2	2.89	3.11	3.10
Calorie/ beauty	0.726/2	3.31	3.46	3.46
Special offer	0.076/1	3.15	3.37	3.43

Remark:
1. Green awareness factors are in *Italics*
2. /1 Homogenous of variance was assumed, ANOVA was used to test the difference
3. /2 Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference
4. Values in bold denote significant difference
5. /a Value is different from green consumers but indifferent from other group of the general consumers

Table 3 First priority of consideration when buying food

First priority when buying food	Type of consumer			Total (n = 450)
	Specialized Shop Customer (n = 150)	High-end Supermarket Customer (n = 150)	Discount Store Customer (n = 150)	
First priority of health	13.3%	14.0%	17.3%	14.9%
First priority of safety	44.0%	22.7%	22.7%	29.8%
First priority of environment	0%	0%	0.7%	0.2%
First priority of organic/ hydroponics	0.7%	1.3%	0%	0.7%
First priority of community support	0.7%	2.0%	0.7%	1.1%
First priority of brand	0%	0.7%	1.3%	0.7%
First priority of freshness	18.0%	14.0%	13.3%	15.1%
First priority of taste	12.7%	18.7%	7.3%	12.9%
First priority of animal friendly	0.7%	0%	0%	0.2%
First priority of beauty	4.0%	2.0%	1.3%	2.4%
First priority of promotion	0.7%	1.3%	1.3%	1.1%
First priority of price	5.3%	24.0%	34.0%	21.1%

Table 4 Consumer differences in knowledge about sustainable food

Knowledge	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Standard certification	0.000*	**2.67**	**1.87**	**1.43**
Definition of sustainable food	0.008*	**0.79**	**0.57**[/a]	**0.57**[/a]

Remark: 1. Heterogeneous of variance is assumed, then Kruskal Wallis was used to test the difference
2. Values in bold denote significant difference
3. [/a] Value is different from green consumers but indifferent from other group of the general consumers

Table 5: Lifestyle of eating

Eating behavior	Type of consumer			Total (n = 450)
	Specialized Shop Customer (n = 150)	High-end Supermarket Customer (n = 150)	Discount Store Customer (n = 150)	
cooking Thai food at home	46.7%	43.3%	48.0%	46.0%
eating Thai food outside	48.0%	43.3%	42.0%	44.4%
eating fast food/ western food outside	5.3%	8.7%	9.3%	7.8%
ordering fast food to eat at home	0%	4.7%	0.7%	1.8%
Total	100.0%	100.0%	100.0%	100.0%

Table 6: Shopping habit

Shopping behavior		Type of consumer			Total
		Specialized Shop Customer (n = 150)	High-end Supermarket Customer (n = 150)	Discount Store Customer (n = 150)	(n = 450)
Buying behavior	regular shopping at one store	17.3%	22.7%	13.3%	17.8%
	shopping at many stores	23.3%	19.3%	30.7%	24.4%
	shopping near house/ office	57.3%	57.3%	52.7%	55.8%
	others	2.0%	0.7%	3.3%	2.0%
	Total	100.0%	100.0%	100.0%	100.0%
Frequency of buying food	never/ somebody buys food for me	6.7%	5.3%	0.7%	4.2%
	1-2 times per week	34.0%	33.3%	38.7%	35.3%
	3-4 times per week	27.3%	26.0%	26.7%	26.7%
	5 times per week and more	32.0%	35.3%	34.0%	33.8%
	Total	100.0%	100.0%	100.0%	100.0%
Percentage of income paid for food	15% or less than	12.0%	6.7%	12.0%	10.2%
	16- 30%	44.0%	32.0%	34.7%	36.9%
	31-50%	38.7%	33.3%	30.7%	34.2%
	51-70%	2.0%	19.3%	10.7%	10.7%
	71 –80 %	2.0%	8.0%	8.7%	6.2%
	81 –100 %	1.3%	0.7%	3.3%	1.8%
	Total	100.0%	100.0%	100.0%	100.0%

Table 7 Experience of buying organic food

Type of food that have bought	Type of consumer			Total
	Specialized Shop Customer (n = 150)	High-end Supermarket Customer (n = 150)	Discount Store Customer (n = 150)	(n = 450)
Organic rice	56.0%	20.0%	28.7%	34.9%
Organic milk	32.0%	16.0%	20.0%	22.7%
Organic meat/ seafood	2.0%	19.3%	11.3%	10.9%
Organic vegetable	84.0%	70.0%	67.3%	73.8%
Organic fruit	53.3%	46.7%	58.0%	52.7%
Organic cereal	37.3%	19.3%	22.7%	26.4%
Organic honey	28.0%	6.0%	4.0%	12.7%
Organic coffee	10.7%	6.0%	10.0%	8.9%
Organic tea	10.7%	8.0%	3.3%	7.3%

Table 8 Consumer differences in buying organic food

Buying organic food	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Organic rice	0.000[/2]*	**0.56**	**0.20**[/a]	**0.29** [/a]
Organic milk	0.003[/2]*	**0.32**	**0.16**[/a]	**0.20**[/a]
Organic meat/ seafood	0.000[/2]*	**0.02**	**0.19**[/a]	**0.11**[/a]
Organic vegetable	0.002[/2]*	**0.84**	**0.70**[/a]	**0.67**[/a]
Organic fruit	0.143[/1]	0.53	0.47	0.58
Organic cereal	0.001[/2]*	**0.37**	**0.19**[/a]	**0.25**[/a]
Organic honey	0.000[/2]*	**0.28**	**0.06**[/a]	**0.04**[/a]
Organic coffee	0.308[/2]	0.11	0.06	0.10
Organic tea	0.048[/2]*	**0.11**	0.08	**0.03**
Other organic food	0.287[/2]	0.90	1.00	1.00

Remark:
1. [/1] Homogenous of variance was assumed, ANOVA was used to test the difference
2. [/2]Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference
3. Values in bold denote significant difference
4. [/a] Value is different from green consumers but indifferent from other group of the general consumers

Table 9 Consumer differences in preference of the target group strategies

Preference of the target group strategies	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Supermarket should promote sustainable food to teenagers because they can convince their parents and friends to eat more sustainable food.	0.508	4.00	3.86	3.99
I eat sustainable food because I have modern lifestyle and fashionable.	0.000[/1]*	**2.25**	**2.78**[/a]	**2.85**[/a]
Sustainable food consumer is conservative and would like to go back to the past and live with nature.	0.014[/2]*	**1.53**	**1.91**[/a]	**1.93**[/a]

Remark:
1. [/1] Homogenous of variance was assumed, ANOVA was used to test the difference
2. [/2] Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference
3. Values in bold denote significant difference
4. [/a] Value is different from green consumers but indifferent from other group of the general consumers

Table 10 Consumer differences in preference of the information strategies

Preference of the information strategies	Differences between groups	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
If I got more and better information, I'd buy sustainable food more often.	0.245/2	4.07	3.91	4.07
Media				
Information about benefit of sustainable food should be published in TV, newspaper, radio, etc.	0.062/2	4.61	4.42	4.50
Television and newspaper always publish overstatement; so they do not influent my decision of buying sustainable food.	0.759/1	2.85	2.95	2.90
Standard Certification				
Standard certification i.e. logo, storyline makes consumer trust in and decide to buy sustainable food.	0.431/2	4.44	4.35	4.37
If supermarket provides certified food, then I will regular buy the food there.	0.858/1	3.75	3.81	3.79
When buying sustainable food, I never look at standard and certification.	0.039/1*	**2.21**	2.51	**2.58**
Health information				
I eat sustainable food because it makes me healthy.	0.090/2	4.60	4.35	4.41
I don't believe that sustainable food makes me healthier because the nutrition is not different from conventional food.	0.011/2*	**1.79**	**2.25**	2.11
Environment information				
I eat sustainable food because it is good for the environment.	0.000/2*	**4.45**	**3.94**/a	**4.12**/a
I don't know how sustainable food is related to the environment.	0.000/2*	**1.82**	**2.36**/a	**2.39**/a
Social sustainability information				
Consumer will buy more sustainable food if they know that the food is locally grown and made by the community.	0.104/1	3.59	3.52	3.79

Remark: 1. /1 Homogenous of variance was assumed, ANOVA was used to test the difference

2. /2 Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference

3. Values in bold denote significant difference

4. /a Value is different from green consumers but indifferent from other group of the general consumers

Table 11 Consumer differences in preference of the connecting provider - consumer strategies

Preference of the connecting provider - consumer strategies	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Shop personnel				
I would buy sustainable food if somebody are there in the store to give me information	0.346[/1]	3.90	3.97	4.07
Friendliness and good service of shop personnel make me decide to buy sustainable food.	0.139[/2]	4.01	3.73	3.76
I don't like talking with the shop personnel.	0.452[/2]	3.41	3.59	3.43
Activity				
I will buy sustainable food more often if I have activities with providers such as farm visit, cooking class, yoga class.	0.132[/1]	3.79	3.63	3.88
Service				
I would buy sustainable food via delivery service.	0.017[/2*]	**4.19**	**3.88**	3.98

Remark: 1. [/1] Homogenous of variance was assumed, ANOVA was used to test the difference
2. [/2] Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference
3. Values in bold denote significant difference
4. [/a] Value is different from green consumers but indifferent from other group of the general consumers

Table 12 Percent of willingness to pay for premium price

Percent of willingness to pay for premium price	Type of consumer			
	Specialized Shop Customer (n = 150)	**High-end Supermarket Customer (n = 150)**	**Discount Store Customer (n = 150)**	**Total (n = 450)**
0-15%	56.0%	38.7%	41.3%	45.3%
16-30%	31.3%	24.0%	24.0%	26.4%
31-50%	6.7%	16.0%	12.0%	11.6%
51-75%	0.7%	8.0%	5.3%	4.7%
76-100%	2.7%	7.3%	12.0%	7.3%
more than 100% as well as sustainable food has more benefit	2.7%	6.0%	5.3%	4.7%
Total	100.0%	100.0%	100.0%	100.0%

Table 13 Consumer differences in preference of the price strategies

Preference of the price strategies	Differences between groups (Sig.)	Mean rating		
		Specialized Shop Customer	High-end Supermarket Customer	Discount Store Customer
Sustainable food should be maximum 15% more expensive than conventional food.	0.455[/1]	4.31	4.39	4.24
If the price of sustainable food is not different from conventional food, then I would regularly buy sustainable food.	0.953[/2]	4.52	4.50	4.41
I always compare the quantity and price of products. Then, I would select the cheapest products on the shelf.	0.006[/2*]	**2.97**	**3.40**[/a]	**3.38**[/a]

Remark:
1. [/1] Homogenous of variance was assumed, ANOVA was used to test the difference
2. [/2] Heterogeneous of variance was assumed, Kruskal Wallis was used to test the difference
3. Values in bold denote significant difference
4. [/a] Value is different from green consumers but indifferent from other group of the general consumers

Summary

The food market in Bangkok has developed from a purely traditional one to a combination between traditional and modern sectors. In 1970s and earlier, fresh markets accounted for a hundred percent of food shopping in Bangkok. From that time on, the modern food retails in Bangkok has rapidly spread since the late 1990s. Many chain stores of the transnational supermarkets such as Carrefour, Tesco Lotus, and Casino are discovered everywhere in Bangkok. These multinational supermarkets have global sustainable development policy which the local chain must select some elements that compatible to the local context to implement in the country.

In Thailand, most of foods are produced in the rural area, processed by the food factories, supplied by food suppliers, and sold by the providers. At the end of this long food supply chain, there is a consumer in the urban area of the country who never knows sources of food and how were foods produced. Moreover, food scandals such as pesticide-use, bird flu, and swine flu makes consumers in Bangkok start questioning about safety of food sold in the stores whether they can be trusted. Besides, the urban lives and increase tension and physical health problems, which make Bangkok people pay attention to health issues. The consumers in Bangkok are modernized, urbanized, richer, and more concerned about food safety. The small part of consumers in Bangkok more frequently shop in the specialized shop for sustainable foods such as organic food, chemical free food, and fair-trade food that safe for their health and the environment.

This research focuses on both providers and consumers to study emerging sustainable food market since any increase in the level of sustainable food consumption requires both providers and consumers to change their strategies and behaviour in a more sustainable direction. Providers possess the power to influence the level of consumption of sustainable food products by offering green foods to consumers. They play a powerful role in creating and expanding green market, because they can also influence and lead other actors, such as farmers and producers, in the supply chain.

In Bangkok, there are two main channels that distribute sustainable foods: 1) specialized shops and 2) supermarkets. The specialized shops constitute the niche market while the supermarkets form the mainstream market. The specialized shops and the supermarkets differ in their views on sustainable food, their existing market shares, management systems and the connections they have with their suppliers and customers. Consequently, they develop their strategy to introduce and promote sustainable food in Bangkok in different ways.

The specialized shops form the “Green Market Network” to work together and empower individual shop owners. The major tasks of the network are to procure sufficient and reliable sources of sustainable food for the individual shops, to improve their businesses by learning from each other’s experiences and to expand the market for their products. Their main task is to locate reliable suppliers to supply real sustainable food to the shops in the network. The specialized shops are not so focused on certification but, instead rely on trust: going to the farms and seeing the way of production with their own eyes. Then, they are confident about the products they sell and can pass this trust onto their customers. This trust in sustainable food is primarily generated by personal interactions. The specialized shops communicate with consumers in an informal and friendly way, talking directly to the consumers in the shop and organizing activities with the consumers. The specialized shops regard themselves and their

organization as well-defined and well-established. They believe that they do what they have to do energetically and do not compare themselves to the mainstream retailers. They do not feel that they are behind the supermarkets which are offering modern, imported, certified, sustainable, food. They are self-confident about their own way of realizing (green) growth. Instead of growing in terms of quantity, the specialized shops would rather follow the '*small, specialized and beautiful*' concept and develop their network. This analysis of the present position and strategies of the specialized shops suggests that they will continue to play a role in providing sustainable food but are likely to remain niche market actors for the foreseeable future.

Unlike the specialized shops, the supermarkets see themselves as actors operating in a global business system characterized by increased competition for green business. The sustainability policy generally comes from management at the head office and is passed down to the action level in the chain stores. For a multinational supermarket, like Carrefour, the sustainability policy is established at the head office in the mother country and developed for its outlets all around the world. Due to their formal management strategies, the supermarkets are more removed from their consumers and communicate with them in more indirect ways. The supermarkets tend to use standard certification and labels as important information strategies to inform their consumers and give them confidence about green offers. Although national regulations for sustainable food in Thailand are not well developed, the supermarkets do not wait for help from the government. They develop their own quality signs or a symbol of reliance to inform their customers and to give consumers trust in sustainable food. The supermarkets are aware of the global tendencies towards more green preferences and how these are influencing consumers in Bangkok. They realize that, in the near future, consumers will probably buy more sustainable food from their supermarkets. In an effort to guarantee market shares, we can expect supermarkets in Bangkok to contribute to the on-going growth of sustainable food provision. This is especially true of the multinational and upscale supermarkets.

Following on from the focus group discussion result, it was assumed that there were three types of consumers in Bangkok: i) specialized shop customers who always bought food in green stores, ii) high-end supermarket customers who always bought their food in upscale supermarkets, and iii) discount store customers who always bought their food in discount stores. The survey found many shared characteristics between the three groups. First, they were modern consumers who shopped at modern retailers such as specialized shops and supermarkets. Secondly, the education level and income of these three types of consumers were quite similar: all of them can be categorized as middle class. Thirdly, their eating habits were similar in terms of eating traditional Thai food both at home and outside.

As stated before, this study assumed that there were three groups of consumers. It is obvious that the customers of specialized shops differed from the other two groups in terms of their awareness, knowledge, and their perspectives on providers' strategies. They were more concerned about the safety of food and looked for information in the shop as well as at the products for certification standards and information on the package. Their knowledge about sustainable food was distinctly higher than that of the other two groups. Moreover, they realized the health benefits of sustainable food and understood the reason for paying extra for safer food. This study did not find any clear distinctions between the customers of high-end supermarkets and those of discount stores. They were rather similar in terms of their consumption of sustainable food and both had limited knowledge about sustainable food. They can both therefore be categorized as conventional consumers. This survey leads us to the conclusion that, in terms of sustainable food consumption, there are two groups of consumers in Bangkok: green consumers and conventional ones.

The results from this research indicate that the specialized shops in Bangkok already perform well in presenting a green profile and selling green products to a specific group of consumers. However, if the overall consumption of sustainable food in Bangkok is to increase, conventional consumers need to engage in shopping for sustainable food. The supermarkets can play an important role in offering green food products to these consumers. At the moment, the assortment and proportion of sustainable food available in the supermarkets is still limited. In addition, the available sustainable food assortments do not match the eating habits of most consumers. All the groups of consumers in the survey usually eat Thai food, which normally consists of rice and side dishes. However, many sustainable food items currently available in the supermarket cannot be considered as basic Thai foods. These western sustainable foods do not fit the eating habits of most consumers in Bangkok and this does not give most consumers in Bangkok much opportunity to go green.

The final conclusion of this thesis suggested ways in which supermarkets can improve their green provisioning and make this more visible to consumers. Firstly, supermarkets can present themselves as a ‘green’ company by engaging in sustainable practices such as using energy saving light bulbs, recycling waste and offering a wider variety of sustainable food products in their outlets. These sustainable performances should be clearly displayed to the consumers to create the image of a green company. This green image can in turn be used by the supermarkets as a selling point, because consumers will be aware that they are buying food from a green company. Secondly, sustainable food products must be placed in a prominent position. However, a separate product shelf does not work very well by itself. Information, provided through some form of information bar, should be available directly beside the shelf. If a supermarket offers certified sustainable food, the meaning of each certification must be shown to help consumers distinguish the level of sustainability and make the choice that fits their preferences. Thirdly, since consumers in Bangkok consider sustainability to mean the same as health and safety, the information given to them must be focused on the health benefits of sustainable food. For example, it should communicate a story about the production process behind sustainable food, which does not allow the use of pesticides and chemical substances and is therefore safe for human health. Lastly, most consumers in Bangkok normally eat Thai food. Therefore, the supermarkets should offer more sustainable Thai food assortments, such as rice, various vegetables, meat and sauces, that fit Thai eating habits. Since many consumers in Bangkok do not cook, the supermarkets could also offer pre-prepared, ready-to-eat sustainable food. If sustainable food is offered in ways that fit Thai consumers’ lifestyle and habits they will buy more sustainable food and the level of sustainable food consumption will increase.

Samenvatting

De voedselmarkt in Bangkok (Thailand) heeft zich ontwikkeld van puur traditioneel tot een combinatie van traditionele en moderne sectoren. In de jaren 1970 en daarvoor waren de markten op straat verantwoordelijk voor honderd procent van alle voedselverkopen in Bangkok. Sinds het eind van de jaren 1990 hebben moderne vormen van voedsel retail zich snel verspreid in dit metropolitane gebied. Vele winkels, in bezit van transnationale supermarketens zoals Carrefour, Tesco Lotus en Casino zijn nu gevestigd op vele locaties in Bangkok. Deze multinationale supermarktketens hebben een wereldwijd beleid rond duurzame ontwkkeling waarbij de lokale keten enkele elementen moet selecteren die passen in de lokale context en in het land kunnen worden uitgevoerd.

In Thailand wordt het meeste voedsel geproduceerd op het platteland, verwerkt door industriële bedrijven, verhandeld door gespecialiseerde handelaren en verkocht door detailhandelaren. Aan het eind van deze lange voedselketen staat de consument in de stedelijke gebieden, die niet weet waar zijn voedsel vandaan komt en hoe het is geproduceerd. Bovendien zorgen voedselschandalen, zoals pesticide-gebruik, de vogelgriep en de varkenspest ervoor dat consumenten in Bangkok vragen stellen over de veiligheid van het voedsel dat in de winkels wordt verkocht en in hoeverre zij dit voedsel kunnen vertrouwen. Daarnaast zorgen het stedelijke leven en de toegenomen spanningen en fysieke problemen die daarbij horen ervoor dat mensen in Bangkok meer aandacht zijn gaan besteden aan gezondheidsvragen. De consumenten in Bangkok zijn gemoderniseerd, geürbaniseerd, rijker en meer bezorgd over voedselveiligheid. Een klein gedeelte van de consumenten in Bangkok koopt regelmatig in speciaalzaken waar duurzaam voedsel verkrijgbaar is zoals biologisch, zonder pesticiden en fair-trade; voedsel dat veilig is voor gezondheid en milieu.

Dit onderzoek richt zich op zowel de leveranciers als de consumenten teneinde de opkomende markt voor duurzaam voedsel in Bangkok te bestuderen omdat elke toename in duurzame voedselconsumptie vereist dat zowel de leveranciers als de consumenten hun strategieën en gedrag veranderen in de richting van meer duurzaamheid. Leveranciers bezitten de macht om het niveau van consumptie van duurzame voedselproducten te beïnvloeden door deze producten aan te bieden. Zij spelen een belangrijke rol in het creëren en verbreden van de markt voor duurzame producten en zij kunnen een leiderschapsrol vervullen door andere actoren, zoals boeren en producenten, in de keten te beïnvloeden.

In Bangkok bestaan twee belangrijke kanalen voor de distributie van duurzame voedselproducten: 1) gespecialiseerde winkels en 2) supermarkten. De gespecialiseerde winkels vormen de niche markt terwijl de supermarkten de mainstream markt vormen. De gespecialiseerde winkels en supermarkten verschillen in hun visie op duurzaam voedsel, hun marktaandeel, hun management systemen en de connecties die zij hebben met hun leveranciers en klanten. Als gevolg hiervan ontwikkelen zij verschillende strategieën om duurzaam voedsel in Bangkok te introduceren en te promoten.

De gespecialiseerde winkels vormen het “Green Market Network” om samen te werken en individuele winkeleigenaren te ondersteunen. De belangrijkste taken van het network zijn het organiseren van voldoende en betrouwbare leveranties van duurzaam voedsel voor de individuele winkels, het verbeteren van hun ondernemening door te leren van elkaars ervaringen en het uitbreiden van de markt voor hun producten. Hun belangrijkste taak is om betrouwbare leveranciers te localiseren om duurzaam voedsel te leveren aan de winkels in het netwerk. De gespecialiseerde winkels zijn niet erg gefocused op certificering maar in plaats daarvan baseren zij zich op persoonlijk vertrouwen, door zelf naar de boerderijen gaan en met eigen ogen waar te nemen hoe de productie plaatsvindt. Daarna, wanneer zij vertrouwen hebben in de producten die zij verkopen kunnen zij dit vertrouwen doorgeven aan hun klanten. Dit vertrouwen in duurzaam voedsel is vooral het resultaat van directe interactie tussen personen. De gespecialiseerde winkels communiceren met hun klanten op een informele en vriendelijke wijze, door rechtstreeks te praten met de consumenten in de winkel en door activiteiten te organiseren met de consumenten. De gespecialiseerde winkels beschouwen zichzelf en hun organisatie als goed gepositioneerd en duidelijk ingebed in de lokale context. Zij geloven dat zij doen wat zij moeten doen en doen dat dan ook vol overgave zonder zich te vergelijken met de mainstream ondernemers. Zij voelen zich niet achterliggen op de supermarkten die moderne, geïmporteerde, gecertificeerde, duurzame voedselproducten aanbieden. Zij zijn vol zelfvertrouwen over hun eigen manier om (groene) groei te realiseren. In plaats van te groeien in termen van kwantiteit, volgen de gespecialiseerde winkels bij voorkeur het concept '*small, specialized and beautiful*' en ontwikkelen zij hun eigen netwerk. Deze analyse van de huidige positie en strategie van de gespecialiseerde retail sector suggereert dat zij een rol zullen blijven spelen in de leverantie van duurzaam voedsel maar waarschijnlijk voorlopig een niche markt zullen blijven vormen.

In tegenstelling tot de gespecialiseerde winkels, beschouwen de supermarkten zich als opererend in een wereldwijd business systeem dat wordt gekarakteriseerd door toenemende concurrentie rond duurzaam zakendoen. Het beleid rond duurzaamheid wordt over het algemeen geformuleerd door het management op het hoofdkantoor en vervolgens doorgegeven om uitgevoerd te worden in de winkels van de keten. Voor een multinationale supermarkt onderneming, zoals Carrefour, wordt het duurzaamheidsbeleid vastgesteld in het wereldwijde hoofdkantoor en verder ontwikkeld voor de vestigingen over de hele wereld. Vanwege hun formele management strategieën hebben deze supermarkten een grotere afstand van hun klanten en moeten zij met hen in meer indirecte manieren communiceren. De supermarkten gebruiken daarom certificering en labels als belangrijke instrumenten om hun klanten te informeren en om hen vertrouwen te geven in het groene, duurzamew aanbod. Hoewel de nationale regelingen voor duurzaam voedsel niet erg sterk zijn ontwikkeld in Thailand, wachten de supermarkten niet op aansturing en steun vanuit de overheid. Zij ontwikkelen hun eigen betrouwbare indicatoren en kwaliteitssymbolen om hun klanten te informeren en hen vertrouwen te geven in duurzaam voedsel. De supermarkten zijn zich bewust van de globale trend naar meer duurzaamheid en hoe dit de consumenten in Bangkok beïnvloedt. Zij realiseren zich dat in de nabije toekomst consumenten waarschijnlijk meer duurzaam voedsel zullen kopen in hun supermarkten. In een poging om hun marktaandeel veilig te stellen, kan verwacht worden dat supermarkten in Bangkok zullen bijdrage aan de voortdurende groei van het aanbod aan duurzaam voedsel. Dit is vooral het geval bij de multinationale en kwaliteitssupermarkten.

In vervolg op de resultaten van de focus groep discussies, is verondersteld dat er drie categorieën consumenten zijn in Bangkok: i) consumenten die hun voedsel altijd in groene winkels kopen, ii) consumenten die hun voedsel altijd in duurdere supermarkten kopen, en iii) consumenten die hun voedsel altijd in de discount supermarkten kopen. De survey toont aan dat er veel overeenkomsten zijn tussen deze drie groepen. Ten eerste, zijn zij allemaal moderne consumenten die winkelen bij moderne retailers zoals gespecialiseerde winkels en supermarkten en niet meer op de markt. Ten tweede, het opleidingsniveau en het inkomen van deze drie typen consumenten is erg vergelijkbaar: zij kunnen allemaal worden beschouwd als middenklasse. Ten derde, hun voedingsgewoonten zijn vergelijkbaar in die zin dat zij vooral traditioneel Thais voedsel eten, zowel thuis als in restaurants.

Zoals hierboven vermeld, nam deze studie als uitgangspunt dat er drie groepen consumenten zouden bestaan in Bangkok. Het is duidelijk dat de klanten van de gespecialiseerde winkels anders zijn dan de andere twee groepen in termen van hun bewustzijn, kennis, en hun perspectieven op de strategieën van de providers. Zij waren meer bezorgd over de veiligheid van het voedsel en waren actief op zoek naar informatie zowel in de winkel als bij de producten zelf met betrekking tot certificeringsstandaards en informatie op de verpakking. Hun kennis van duurzaam voedsel was duidelijk groter dan bij de andere twee groepen. Bovendien waren zij zich bewust van de gezondheidsvoordelen van duurzaam voedsel en begrepen zij de redenen waarom de prijs voor veilig voedsel veelal hoger is. Daarentegen liet deze studie geen duidelijke verschillen zien tussen de klanten van de duurdere supermarkten en die van de goedkope discount supermarkten. Zij waren vooral vergelijkbaar in termen van hun consumptive van duurzaam voedsel en zij hadden beiden beperkte kennis van duurzaam voedsel. Zij kunnen beide worden gekarakteriseerd als conventionele consumenten. Deze survey leidde ons daarom tot de conclusie dat er, in termen van duurzame voedselconsumptie, in Bangkok twee groepen consumenten te onderscheiden zijn: groene en conventionele consumenten.

De resultaten van dit onderzoekn laten zien dat de gespecialiseerde winkels in Bangkok al goed functioneren in het presenteren van een groen profiel en in het verkopen van groene producten aan een specifieke groep consumenten. Echter, wanneer de consumptie van duurzaam voedsel in Bangkok in zijn algemeenheid moet stijgen, moeten de conventionele consumenten zich ook engageren aan het kopen van duurzaam voedsel. De supermarkten kunnen een belangrijke rol spelen in het aanbieden van groene voedselproducten aan deze klanten. Op dit moment is het assortiment en de hoeveelheid duurzaam voedsel dat is beschikbaar in de supermarkten nog steeds beperkt. Bovendien, het beschikbare assortiment duurzaam voedsel sluit niet aan bij de gewoontes van de meeste consumenten. Alle groepen consumenten in de survey eten gewoonlijk Thais voedsel, meestal bestaande uit rijst en bijgerechten. Echter, de meeste duurzame voedselgerechten die tegenwoordig beschikbaar zijn in de supermarkten kunnen niet worden gezien als origineel Thais voedsel. Deze westerse duurzame voedselproducten passen niet in de eetgewoontes van de meeste consumenten in Bangkok en daardoor krijgen de meeste consumenten in Bangkok weinig gelegenheid om zich duurzaam te gedragen.

De slotconclusie van dit onderzoek omvat enkele suggesties voor manieren waarop supermarkten hun duurzaam aanbod kunnen verbeteren en dit meer zichtbaar kunnen maken voor de consumenten. Allereerst kunnen supermarkten zich presenteren als een ‘groene’ onderneming door duurzame praktijken door te voeren zoals het gebruiken van energie-besparende verlichting, recycling van afval en het aanbieden van een grotere variëteit aan duurzame voedselproducten in hun winkels. Deze duurzame activiteiten zouden duidelijk zichtbaar gemaakt kunnen worden aan de consumenten om het imago van het groene bedrijf te creëren. Dit groene imago kan vervolgens worden gebruikt door de supermarkt als middel om meer klanten aan te trekken, omdat klanten zich er bewust van zullen zijn dat zij voedsel kopen van een duurzaam bedrijf. Ten tweede, duurzaam voedsel moet op een prominente plaats in de winkel worden geplaatst. Echter een apart schap met deze producten op zich werkt onvoldoende. Informatie, bijvoorbeeld in de vorm van een informatie-stand, moet direct naast het schap beschikbaar zijn. Wanneer een supermarkt gecertificeerd duurzaam voedsel aanbiedt, moet de betekenis van elk label zichtbaar zijn om consumenten te ondersteunen een onderscheid te maken op basis van de mate van duurzaamheid zodat zij een keuze kunnen maken die bij hun voorkeur past. Ten derde, omdat consumenten in Bangkok duurzaamheid zien al seen strategie om gezondheid en veiligheid te realiseren, moet de informative die aan hen wordt gegeven zich concentreren op de voordelen van duurzaam producten voor de gezondheid. Bijvoorbeeld, zij zouden moeten communiceren over het productieproces dat achter duurzaam voedsel zit, omdat het gebruik van pesticiden en andere chemische substanties niet is toegestaan en dat het daarom veilig is voor de menselijke gezondheid. Tenslotte, de meeste consumenten in Bangkok eten meestal Thais voedsel. Daarom moeten de supermarkten meer duurzame Thaise voedselproducten moeten aanbieden in hun assortiment, zoals rijst, verschillende groenten, vlees en sauzen, die passen in de Thaise eetgewoontes. Aangezien veel consumenten in Bangkok niet koken, kunnen de supermarkten ook duurzame kant-en-klaar gerechten aanbieden. Wanneer duurzaam voedsel wordt aangeboden in manieren die passen in de gewoontes en leefstijl van de Thaise consumenten zullen zij meer duurzaam voedsel kopen en zal de mate van duurzame voedselconsumptie omhooggaan.

About the author

Kanang Kantamaturapoj was born on 11th August 1980 in Kamphaengphet Province, the North of Thailand. She did her primary and secondary education in her hometown. She joined Chiang Mai University for her Bachelor of Sociology and Anthropology (1998-2002). She got a scholarship from Agro-industrial transformations toward sustainability program (AGITS) funded by INREF to study Masters of Environmental Sciences (2002-2004) at Wageningen University. After her Masters degree, the author worked for Social Research Institute, Chiang Mai University and some environmental consultants in Bangkok. In August 2007, the author joined Wageningen University for her PhD studies.

KANANG KANTAMATURAPOJ
PhD candidate, Wageningen School of Social Sciences (WASS)
Completed Training and Supervision Plan

Wageningen School of Social Sciences

Name of the activity	Department/Institute	Year	ECTS*
A) Project related competences			
Writing proposal	ENP	2008	6
Governance	MG3S	2007	3.0
Social Theory and the Environment	MG3S	2008	6.0
Food Risk Analysis	MG3S	2009	3.0
Food Supply Chain Management	WASS	2011	2.5
B) General research related competences			
Introduction course	WASS	2007	1.5
Information Literacy, Including Introduction Endnote	WGS	2007	0.6
End Note Advanced	WGS	2007	-
Searching for Science on the Web	WGS	2007	-
Research Methodology I: From Topic to Proposal	MG3S	2007	4.0
Techniques for writing and presenting a scientific paper	WGS	2007	1.2
Scientific Publishing	WGS	2007	0.3
Academic Writing I	Language Centre	2007	-
Academic Writing II	Language Centre	2008	-
Philosophy and Ethics of Food Science and Technology	WGS	2008	1.5
Project and Time Management	WGS	2008	1.5
PhD Competence Assessment	WGS	2008	0.3
Getting Articles Published	ENP	2008	0.6
Introduction to R	PE&RC	2009	0.6
Bayesian Statistics	PE&RC	2009	0.6
C) Career related competences/personal development			
Environmental Policy Group Research Colloquium, Wageningen	ENP	2008	1.0
International Conference on Green and Sustainable Innovation: Sufficiency and Sustainability Life Cycle Thinking, Thailand	ICGSI	2009	1.0
Career Assessment	WGS	2011	0.3
Total (minimum 30 ECTS)			**35.5**

*One ECTS on average is equivalent to 28 hours of course work

Cover designed by: Ms Thitima Apornrat and Ms Busara Bunnakiatkul