

FOOD PURCHASING BEHAVIOURS OF YOUTH IN NORTHERN
THAILAND

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ABSTRACT

This project seeks to understand the relationship between changing retail formats, youth consumer decision-making and the campaigns of local food advocates and their impacts on food cultures. General research objectives are to determine how youth in Chiang Mai understand their current eating practices and determine why youth involvement in the alternative agricultural (AA) movement is limited and to investigate how AA organizations can better involve youth. A multi-method approach was employed which included; semi-structured interviews (N=33), a questionnaire survey (N=35) and food journals (N=9). Data collected from youth participants revealed that the top three factors considered when making food decision are taste, proximity and price. Further research revealed that youth were actively interested in safe and healthy food. These results suggest an opening for how AA organizations could more effectively engage youth by building on their interest in healthy food while taking into account the factors that influence their food choices.

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Chapter 1

Research Problem Rationale

The globalization of food systems has resulted in the spread of modern retail formats and an associated homogenization of the types of food available across the globe (Sobal, 1999; Pingali, 2007). Accompanying these transformations is a shift in dietary patterns whereby consumption of energy-dense highly processed foods which are rich in fat and sugar replace traditional diets of cereal, fruit and legumes, referred to as the 'nutrition transition' (Popkin, 1994; 2003; 2006). is largely attributed to rising incomes, increasing urbanization, and the industrialization of the food system which changes the ways that people access foods and the types of foods available to them (Drewnowski & Popkin, 1997). Current research on the nutrition transition is largely focused on food as a component of diet and its impact on population health. My research, however, focuses on food as a socially and culturally embedded entity - an approach particularly important in a country such as Thailand where food is a foundational part of national identity.

Industrialization has had a significant impact on the nature of agricultural food systems; altering the variety and quantity of food types available, providing foreign investment and enlarging the presence of transnational food corporations (Hawkes, 2005). There has been a rapid commercialization of agriculture through the green revolution and cash crop technologies, followed by a change in food processing and retailing, which is linked to the broader rapid economic growth in Asia and rising household incomes, enabling people to buy more expensive foods (Hawkes, 2005). Furthermore, development policies aimed at encouraging urban growth have shifted population from rural to urban centers (Henderson, 2002), decreasing direct reliance on the land for food acquisition. This demographic shift results in populations obtaining more of their food from retail markets as opposed to subsistence agriculture (Reardon et al., 2012).

As part of the Thai development trajectory we are now seeing evidence of a change in how people get their food. A change in how people access their food is occurring in part through the increasing prevalence of convenience stores and large retailing formats - sometimes labeled the “supermarket revolution, - which privilege the sale of non-local, non-traditional foods (Reardon et al., 2012). Modern retail formats contribute to more than half of the food retail sector in Thailand, indicating a growing preference amongst consumers for supermarkets, convenience stores and hypermarkets¹ (USDA Foreign Agricultural Sector, 2013). One can hypothesise that the presence of traditional foods in the Thai diet will decrease if modern retail markets continue to grow at the current rate impacting Thai health and cultural identities. Meanwhile, an active alternative agriculture and marketing movement supported by; NGOs, government, foundations and others, argues that such trends are adversely impacting environment, local food economies and health (Weis, 2010). They are trying to counter these trends by promoting traditional varieties and vegetables, green marketing and sustainable agriculture. The goal of these efforts is, in part, to help mitigate the environmental degradation, heavy indebtedness and health problems farmers experience as a result of current chemical-intensive mono-cropping agricultural practices (Horrihan et al., 2002).

This project seeks to understand the relationship between changing retail formats, youth consumer decision-making and the campaigns of local food advocates, and their impacts on food cultures. Furthermore, it seeks to support movements countering unhealthy food consumption trends and increase youth consumer knowledge about the sources of food they consume.

Conceptual Framework

¹ Hypermarkets are similar to supermarkets, however it sells products in bulk quantities (e.g. Costco)

An understanding of the factors influencing and consequences associated with changes to dietary patterns can be acquired through the examination of four main bodies of literature: 1) agrarian transition; 2) supermarket revolution; 3) local food advocates' critique of the industrial food system and 4) the role of food in Thai identity and culture. While the factors discussed in the literature alone cannot adequately address the complexities of changing food patterns in youth in Thailand, it will provide the appropriate background information to conduct an investigation for understanding changes in dietary patterns.

The development trajectories of middle-income developing countries in Asia have been characterized by unprecedented rates of economic growth. Labour-intensive manufacturing, which has facilitated rural-to-urban migration, has contributed to this economic expansion. Agricultural development associated with green revolution technologies, however, has also been a driver in Asia (Southgate, Graham & Tweeten, 2007). Economic growth has contributed to the transition from a primarily agrarian society to an increasingly industrial one. This phenomenon has been experienced by both the Global North and Global South. Rural livelihoods have become delocalized and delinked from the land with increasing reliance on non-farm activities to contribute to household income (Rigg, Veeravongs, Veeravongs, & Rohitarachoon, 2008). In the 1980s, approximately 70% of the population in Thailand were farmers, however now less than 50% of the population in Thailand are farmers. These percentages largely reflect only part-time engagement as farmers obtain most of their income off-farm (Vandergeest, Young & Scott, 2016).

The increasing distance between producer and consumer has resulted in a consumer de-skilling whereby food choices are shaped by the marketplace and convenience rather than a deep understanding of food production (Jaffe & Gertler, 2006). As the consumer becomes

increasingly distanced from the source of food, food choices are less selected by an individual's knowledge of the quality of foods or food preparation techniques and more based on agro-food industry marketing strategies for quick and convenient foods (Jaffe & Gertler, 2006). Current literature on consumer de-skilling is focused on the North American experience, but it is increasingly present in developing countries such as Thailand.

In Western countries, particularly North America, an ideology known as nutritionism (Scrinis, 2008) has become a prominent way to evaluate food choices. Nutritionism is the evaluation of food in terms of nutrient composition (i.e. fat, protein, sugar, etc.) (Scrinis, 2008). This type of evaluation has proved to be a powerful marketing tool for the food industry (Pollan, 2007; Scrinis, 2008). As nutrients are not visible, consumers become reliant on expert opinion as to what nutrients to avoid and what nutrients to consume. For example, sugar is frequently identified as a bad nutrient and its consumption should be limited. A pop tart is generally accepted as an unhealthy food, however, if marketed as sugar free, the consumer would believe that the pop tart is now somewhat healthy as it does not contain any of the bad nutrient – sugar. Fresh produce does not typically include a food label, nor can it be easily manipulated to include more or less of a particular nutrient. Therefore pre-packaged processed foods become the popular choice for consumers because the consumer can quickly read the nutrition label (Pollan, 2007; Scrinis, 2008). Nutritionism is a reductive approach to evaluating food choices that increases risk of consumer de-skilling by increasing consumer reliance on the agro-food industry's advice as to what one should or should not eat because the consumer cannot identify invisible nutrients.

As part of the Thai development trajectory, we are now seeing evidence of a change in how people get their food and the rise of convenience stores and large retailing formats. Wet

markets historically acted as the retail format from which Thai people could purchase prepared Thai cuisine and raw ingredients (Banwell et al., 2013; Isaacs, Dixon & Banwell, 2010; Yasmeen, 2000; Reardon et al., 2012; USDA Foreign Agricultural Sector, 2013). Wet markets are established in communities and city centres to allow local farmers to sell their produce. Foods available at these markets are largely fresh produce with some options for prepared foods. A typical consumer in these markets would be purchasing raw ingredients to prepare food for consumption at home. Although wet markets continue to be present and popular in Thailand, a growing middle class and openness to investment in the food retailing sector has encouraged growth of modern retail formats.

Following the 1997-1998 financial crisis, a devaluation of the Thai Baht and capital flight allowed foreign, predominately European, companies to acquire low cost real estate (Coe & Lee, 2006). This contributed to a growing presence of foreign food companies in the food retail landscape which further facilitated growth of modern retail formats including supermarkets, hypermarkets and convenience stores. This occurred at the expense of local food markets and neighborhood grocery stores (Pingali, 2010; Reardon et al., 2012). A recent report from USDA claims that the modern retail formats, which include supermarkets and hypermarkets, account for as much as 70% of total retail sales in Thailand (USDA Foreign Agricultural Sector, 2013). The modern retail format with the most significant influence in Thailand is convenience stores, which account for 31% of retail sales (USDA Foreign Agricultural Sector, 2013).

Modern retail formats play an important role in encouraging the demand for processed, non-local foods (Isaacs et al., 2010; Banwell et al., 2013; Pingali, 2010), impacting the dominance of traditional foods in the diet. This is illustrated in a study conducted by Isaacs, Dixon and Banwell in Chiang Mai, Thailand (2010), which indicated that those who acquired a

majority of food from supermarkets tended to value rice lower than bread. As rice is a mainstay in Thai cuisine and bread is a product introduced by the supermarket, the continual growth of modern retail formats may have negative impacts on the cultural identity associated with Thai foods. With the increasing presence of modern retail formats it is important to examine how this will impact people's food choices especially in relation to the food types available.

Globalization of the food system has not escaped criticism, particularly from local food advocates. The development of a global food system has resulted in a standardization of production methods to increase efficiency and yields, which has been met with concern over the loss of adaptability for long-term sustainability (O'Hara & Stagl, 2001). Globally there is a heavy dependency on externally produced inputs that include; fertilizers, pesticides and high yield varieties, compromising the importance of local knowledge and traditional methods (O'Hara & Stagl, 2001; Shiva, 1991). Standardized practices can be useful in generating efficiency in both production and distribution for the global market, however, it is important to recognize that standardization will result in the ignorance of local environments and social contexts (O'Hara & Stagl, 2001). Efficiency and high yields are achieved through resource-intensive processes that have resulted in environmental degradation including; water and air pollution, and loss of biodiversity (Horrigan, Lawrence & Walker, 2002). It has also resulted in the heavy indebtedness of farmers resulting from the transition from small-scale to commercial agriculture, as well as health consequences from engaging in this type of intensive agricultural practice (Horrigan et al., 2002).

The Northern Thailand province of Chiang Mai has experienced this trend. Prior to the development era (1950s and 1960s) the province was characterized by subsistence agriculture - as rural farmers produced primarily for family consumption with surplus shared amongst

neighbours (Sangkumchaliang & Huang, 2012). However, this rapidly changed following the implementation of the National Economic and Social Development Plans starting in 1961 in Thailand which promoted export-oriented, industrialized farming that required the use of pesticides and chemicals to increase yields (Sangkumchaliang & Huang, 2012). In order to engage in such farming practices, it required a significant start-up capital to purchase farming technology and pesticides. Small-scale farmers would not necessarily have had access to this amount of capital, which forced them to take out loans and led to heavy indebtedness which the average farmer could not repay (Sangkumchaliang & Huang, 2012). In addition, the use of unsafe quantities of chemicals impacted the health of farmers (Sangkumchaliang & Huang, 2012). Health impacts associated with the use of chemicals facilitated a further change in farming practices in Northern Thailand.

The emergence of the alternative agriculture movement is present in both the Global North and Global South, but the reasons for its development differs. As my research is centered in Thailand, I will focus on the experience in the Global South. The emergence of alternative agricultural movement in the Global South is linked with development practices. Alternative agricultural practices developed as a solution to the deficiencies created by industrial agricultural practices including the health and environmental effects of the use of agrochemicals, decreased crop diversity and increased dependence on international markets (Vandergeest, 2009).

Specifically, in Thailand, the alternative agriculture movement emerged in the 1980s, largely focused on organic food and agriculture. In its early stages these farm groups emphasized integrated farming to encourage diversity – moving away from industrial practices of monocropping (Vandergeest, 2009). A farmer's priority would be to grow produce for their own consumption and only sell surplus to surrounding communities. At the beginning, alternative

agriculture in Thailand did not emphasize concern for environmental effects, but rather the establishment of farm groups that could assist in reducing vulnerabilities to dependency on markets and debt (Vandergeest, 2009). However, by the 1990s, organic had displaced integrated farming as the dominant model for practicing and promoting alternative agriculture (Vandergeest, 2009), while environmental concerns also became more prominent.

In 1990, the Alternative Agriculture Network (AAN) was established in Thailand (Vandergeest, 2009). It grew from the groundwork by NGOs working with farmer groups creating a large interconnected network of farmers who wished to practice organic farming as a way of reducing dependency on chemicals (Vandergeest, 2009). This later grew into organic farming practices. Organic foods and farming developed through the AAN's efforts to turn alternative agriculture into a food quality that consumers would want to purchase. The emergence of certified organic farming and the marketing of food to the Global North assisted with the development of organic farming in Thailand as it brought forward international financial support to the AAN and created a market for export of Thai organic products (Vandergeest, 2009). International donors, largely NGOs, further assisted with marketing of alternative agriculture emphasizing the ethical relationship between consumer and farmer, which helped create the internal demand for organic foods amongst Thai consumers (Vandergeest, 2009). The government, as well as non-governmental organizations (NGOs) encouraged farmers to engage in organic farming practices (Sangkumchaliang & Huang, 2012) since the 1990s. Support (financial and education) has been provided by the Thai government and NGOs to encourage a transition to organic farming, which has been widely successful in Northern Thailand (Vandergeest, 2009). Northern Thailand, particularly Chiang Mai province, has one of the strongest alternative agriculture presences in Thailand, which made it a suitable field site for my

research. The specific objectives of alternative agricultural organizations in Chiang Mai will be further explored in Chapter 3.

Thai cuisine is a central factor in the development and maintenance of Thai identity and culture (Lefferts, 2005; Van Esterik, 1992). Increased standardization of diet, with the introduction of modern retail formats and recent expansion of agro-industry and industrialized food production, threatens unique regional food cultures, which carries major implications for Thai cultural identities. Food culture emerges from a particular place but evolves with its changing environment (Wahlqvist & Lee, 2007). Food is not simply a source of nourishment, but rather can act as an identifying marker for both an individual and a culture (Mintz & DuBois, 2002; Fischler, 1988).

Similar to other Southeast Asian countries, Thailand has a diet rich in cereals, primarily rice, and low-fat meats such as fish (Kosulwat, 2002; Soubseman, 2009; Yasmeen, 2000). Rice was once considered the foundation of Thai cuisine and was present at every meal. A common greeting in Thailand is “Kin khao leaw ru yung”, which translates directly to “have you eaten rice already or not yet?” but means simply “have you eaten already?” This greeting would imply that if one has not eaten rice, they simply haven’t eaten. It is therefore important to examine the extent to which rice has remained prominent in youth diets.

Rice is not simply a source of nourishment but also considered to be part of one’s “life essence”; the idea that one is both physically and psychologically composed of rice (Yasmeen, 2000; Walker, 1996). MacClancey (1992) came to understand that villagers in Thailand saw rice as literally, “the bones of the people” (p.24). If food consumption patterns are changing and rice is no longer the mainstay in Thai diet, how will this impact their understanding of these greetings and the centrality of rice to their food culture?

Youth are an important population to examine, as dietary habits are acquired at a young age (Pingali, 2007). Specifically, my research focuses on youth enrolled in university between the ages of 18 and 24. The transition from living at home to living independently can influence consumption practices (Blichfeldt & Gram, 2012). During this period of time, an individual can become disengaged from traditional rituals impacting their engagement with traditional eating practices (Chitakumye & Maclaren, 2008). As a student, the individual is constantly prioritizing between various tasks and practices which compete for scarce time and resources (Blichfeldt & Gram, 2012). Frequently, limited time will likely influence higher consumption of ready-to-eat foods (Blichfeldt & Gram, 2012). Finally, the environment – this includes with whom, where and when food is consumed - may also impact food choices. There is a limited body of literature available to explain influencing factors on consumption practices. Therefore, this study seeks to understand how student consumption practices are impacted by modern retail formats and by extension the global food system.

Research Objectives and Methodology

My general research objectives were: 1) to identify some of the factors that shape where youth access food, with a focus on location and food qualities, and youth understanding of what constitutes alternative agriculture as healthy food and/or safe food; 2) to understand alternative agricultural organizations analysis of youth engagement in alternative agriculture; and 3) using the results of my research, identify opportunities for alternative agricultural groups to better engage youth. There is a significant concern among food professionals about the increasing consumption of processed foods, leading to an alternative agriculture movement that promotes healthier eating among youth and encourages more direct relations with farmers and government programs to promote healthier diets.

To facilitate a greater understanding of this argument, my research asked the following empirical questions:

1. Where do youth get their food? What amount and type is obtained from ‘modern’ versus ‘traditional’ retail formats?² What other food sources are available to youth?
2. What factors influence youth food decisions vis-à-vis where and what to purchase?
3. How often do youth consume organic and/or safe food, and why?
4. Who are some of the key alternative agricultural organizations? What are their activities? How are they engaging youth, or not? What is their analysis of youth engagement in alternative agriculture?

I employed a multi-method approach in order to achieve a comprehensive analysis of my research questions. This approach utilizes both quantitative and qualitative methods (Elwood, 2010). The first three questions will be addressed through analyzing the information produced through semi-structured interviews with university students (N=23), followed by a questionnaire survey (N=35), and food journals (N=9). The fourth question will be answered using data obtained in semi-structured interviews conducted with university students, as well as semi-structured interviews with local food advocates (N=10). Data was collected in June, July and August of 2014.

Ethics

Generally, food consumption practices are not a highly contentious issue therefore, there are a limited number of ethical considerations. The most significant may be that of

² Modern and traditional terminology is applied throughout this paper based on how my respondents used the terms and how these terms are used in the literature. I recognize that common usage of these terms can be problematic as the terms are unstable in how they are defined. For example, not all alternative agriculture could be considered traditional if it involves expensive organic certification and/or advanced agricultural techniques.

confidentiality. In each research method employed consent for each participant was obtained verbally. Translators explained in Thai to each participant the objectives of my research, what types of questions would be asked and what would be done with the information collected. Participants were also provided with my contact information and York University's contact information should they have any further questions or concerns about their participation in my research. All information acquired by participants is stored in a secure, password-protected file on my computer, and a back-up is stored on an encrypted external hard-drive to ensure strict confidentiality.

Significance and Contributions

Following the world food crisis in 2008 and 2009 there are serious questions about the sustainability of the present industrial agricultural system. This research will contribute to our understanding of youth's consumptive practices associated with changing retail formats, interrogate the extent to which arguments against the consumption of non-local processed foods have traction and pay important attention to a demographic critical to understanding future food trends. The results will help inform strategies meant to mitigate the negative consequences of the industrial agricultural system. Furthermore, the research results should help to counter unhealthy food consumption trends and increase consumer knowledge about the sources of food they consume.

Specifically, I hope to provide a deeper understanding for participating youth of their present food consumption practices and a personal reflection of these changes. Through my research, I further seek to introduce alternative agriculture initiatives and arguments to youth in order to encourage a deeper interest about the impacts their food choices have on the environment and individual.

The results from my research should identify opportunities for alternative agricultural groups to better engage youth. Increasing the number of people an organization reaches furthers their objectives and helps them reach their goals. It is important to recognize that the current youth population will play an important role in determining future food environments.

Finally, my research will contribute to the current academic literature. My research is conducted in the Global South, with a demographic that is seldom the focus of attention, which will add to our knowledge of the transition in food production and consumption in rapidly developing sites.

In the remainder of this paper, I will provide greater detail of the methods I employed (Chapter 2); explore the specific objectives of alternative agricultural organizations in Chiang Mai (Chapter 3); provide a review and analysis of the data collected on food purchasing behaviour (Chapter 4); and conclude with restating major findings, and identifying my contributions to current and future research (Chapter 5).

Chapter 2: Methodology

Field Site

I conducted my field work in Chiang Mai, the capital city of Chiang Mai province in the Northern region of Thailand (Figure 1 & 2). It is a city of approximately 250,000 persons (National Statistics Office Thailand, n.d.). Chiang Mai is a large cultural and tourist destination, which permitted an easier transition to the area as English was widely spoken making it easy to navigate the city and live independently. The substantial presence of alternative agriculture groups and youth population with a strong presence of modern retail formats, provided an appropriate environment to conduct my research.

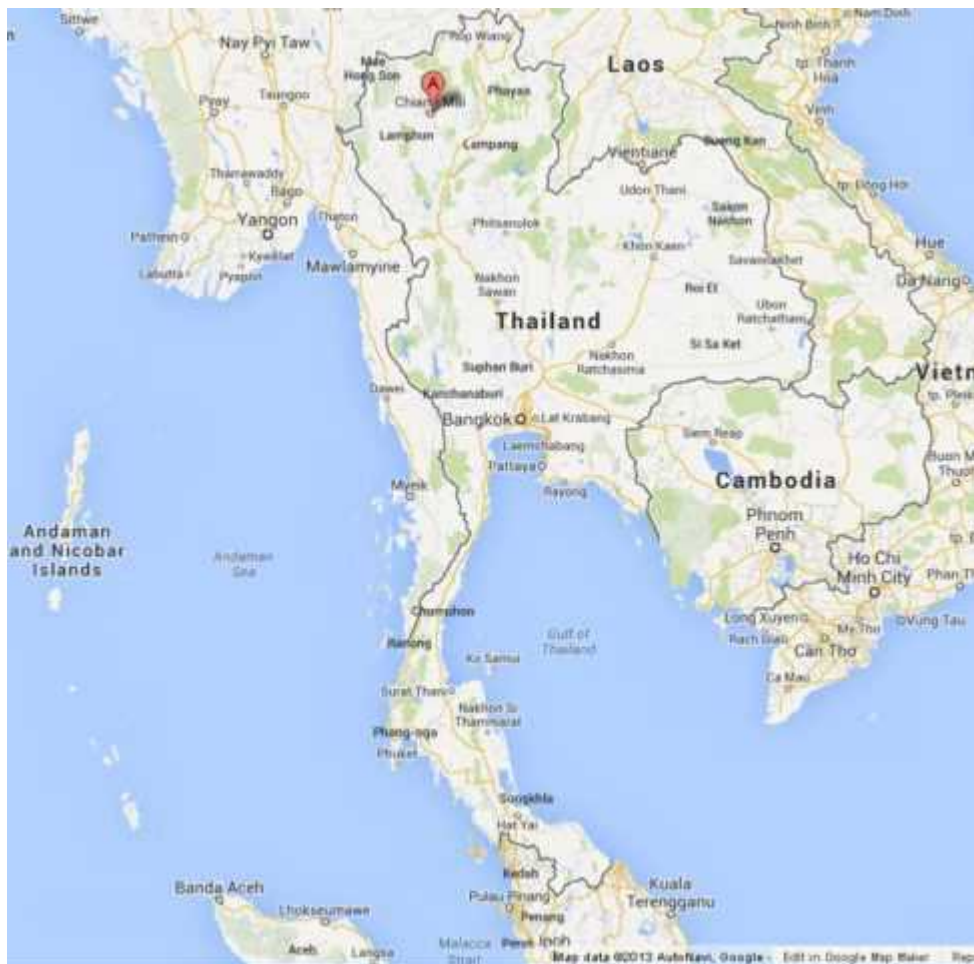


Figure 1: Map of Chiang Mai, Thailand (Google, n.d.)

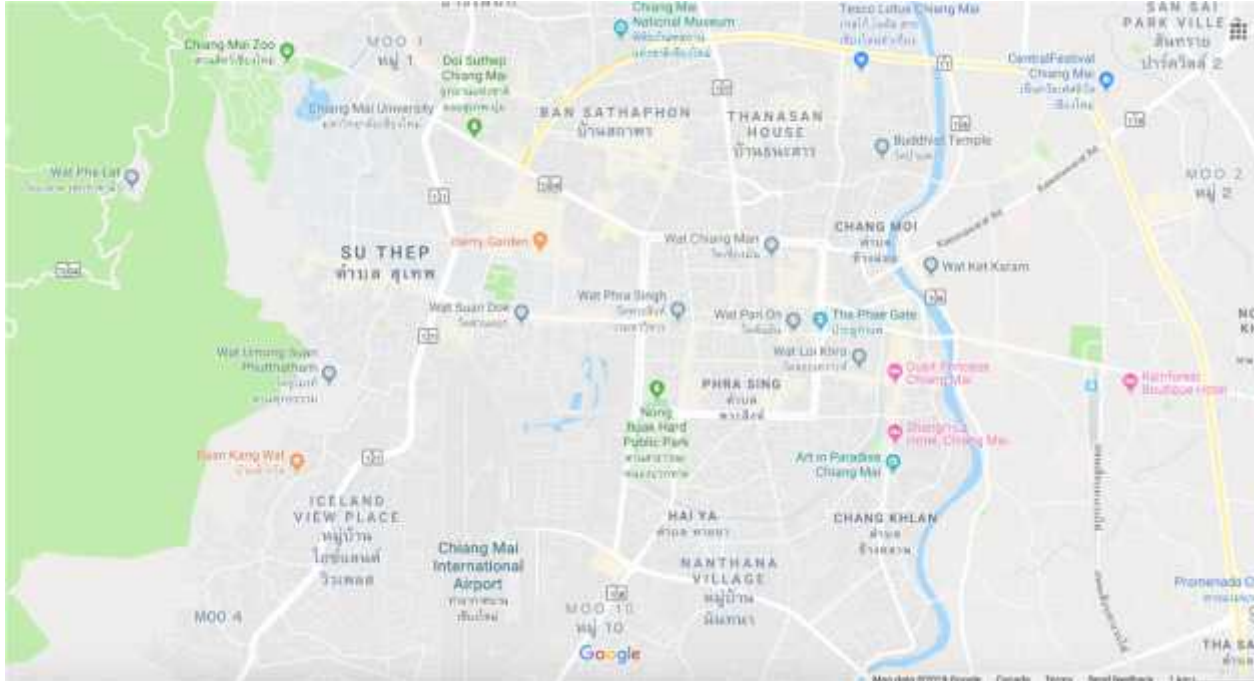


Figure 2: City map of Chiang Mai, Thailand (Google, n.d.)

The strong presence of youth is largely attributed to Chiang Mai University (CMU) – one of the largest universities in Thailand. There are many affordable student housing options on campus and in the surrounding area. Students predominately live in apartment-style residences, where there are limited or no cooking appliances facilitating the dependence on ready-to-eat foods. Students have access to on-campus cafeterias, food stalls, grocery stores and convenience stores in the surrounding area of the campus. In 2014, when research was conducted, food was largely convenient and affordable (30 to 40 baht per plate - \$1 and \$2 CAD).

While there is a strong youth presence, there were significant challenges in acquiring participants as my research was conducted in the summer months. During this time the majority of students were not in class and had returned to their hometown or traveled to summer jobs. This had an impact on my originally proposed sampling technique and methodology. This also forced

a delay in my research because it was difficult to arrange for a translator as many of the graduate students were conducting their own fieldwork outside Chiang Mai.

Participant Observation

I was able to benefit from my delayed start by taking the time to explore Chiang Mai and familiarize myself with its food culture. This included: observing students on the university campus; locating food sources; identifying the types of food available at various food formats; observing who was shopping at various food formats and what they were purchasing and determining the costs of food products and variance between retail formats.

Food is an incredibly social experience in Chiang Mai. It was rare to observe individuals eating alone. As I conducted my research by myself, I quickly became aware of this as I typically dined alone and received odd reactions. Even when purchasing “fast” food, it was unlikely to observe people eating alone.

Once I had decided to conduct my field work in Chiang Mai, I registered for Thai language lessons. It was beneficial to acquire basic knowledge of the Thai language so that I could perform Thai greetings, provide directions and purchase items. My instructor, Khun Rassada, had lived in Chiang Mai since childhood so she also acted as a cultural advisor. She was able to corroborate my observations and provide a local perspective to food culture – both present and past.

Translation

While Chiang Mai is more than accessible, English is not the primary language and thus, I required a translator. My main contact in Chiang Mai was a PhD student at CMU, Sakkarin. He provided access to CMU’s graduate student office where it was possible to hire a student translator. My preference had been to hire one female Masters student to act as my translator to avoid any power dynamics and also who would have had experience conducting their own

fieldwork (i.e. less need for instruction). However, given the timing of my research, this was not possible and I had to hire two translators – a recent female Masters graduate who translated my alternative agriculture interviews and a current male Masters student who translated my youth consumer interviews.

Due to limited funding, I had to be economical with my translator's time. I decided that I would rely on real time translation for all interviews. While real time translation can be beneficial when there are two translators working simultaneously– one asking questions and another translating directly to the researcher – I did not have the resources to hire two translators. Therefore, real time translation employed for the interviews caused breaks in the research and made me heavily reliant on my recorder and translator. To overcome these limitations I met with the translator before the interviews to discuss the objectives of my research and the information I aimed to obtain from the interviews. It also served as an opportunity to review the specific interview questions and identify any vocabulary that would be difficult to translate which could be revised in advance of conducting the interviews. I also spoke with the translators following each interview to review what was discussed and ask any follow up questions I might have had.

Semi-Structured Interviews

Semi-structured interviews were the primary source of information in answering the research questions. An interview provides the opportunity for an in depth and detailed account of an individual's perspective on a particular issue. Questions are inherently personal and probing creating a power imbalance. In order to overcome the inherent power differences, offering some personal information can increase the sense of empathy to the participant putting the researcher at a more equal level to the participant. In building on the sharing of information the interview can be treated as more a collaboration than an interrogation. This can be successful in a semi-

structured interview through which open-ended questions can provide the interviewee with a degree of control.

I conducted 32 interviews: 24 interviews with university students and recent graduates and 8 interviews with alternative agriculture groups, including organic restaurant owners. A snowball sampling technique was employed due to language barriers. The information I attempted to acquire through the interviews with youth included factors influencing food choices, with a focus on location and food qualities and youth understanding of what constitutes alternative agriculture as healthy food. Interview questions for youth participants and alternative agriculture groups were devised in English based on secondary source information. For youth participants the translator reviewed the English questions and translated to Thai. We then conducted an initial review together to determine if any words were not easily translated, followed by an explanation of the word being used and its applicability, after which the translator suggested a comparable Thai translation. Because I did not have access to a large participant pool, my Thai instructor reviewed the translated document and raised any concerns she had about its applicability. It was important that my questions were relevant to the participant. While I knew what my objectives were, I had to be sure they were addressed in a culturally appropriate way. My instructor's knowledge of both language and culture made her an excellent advisor in lieu of a test pool.

Interviews conducted with alternative agricultural groups facilitated a greater understanding of the various organizational objectives, their outlook on food consumption trends and the involvement, if any, of youth in their organizations. In interviewing organic restaurant owners I attempted to understand their marketing strategies and why they believed youth were interested or not in consuming organic products. For alternative agriculture interviews my

approach was different. Prior to each interview I would meet with my translator and I would discuss the goals of the interviews. There was certain information I wanted to elicit from the interviews, however, questions were open-ended to provide some level of flexibility. My translator had a strong grasp of my research objectives and would ask follow-up questions herself and notify me that she had done so. This was largely beneficial because it allowed for an uninterrupted flow of conversation which generally facilitated more qualitative answers, in comparison to the simple answers provided in the youth interviews.

Interviews were conducted at a place of the participant's choosing to ensure that they were as comfortable as possible. The vast majority of interviews conducted with youth occurred at the university or outside their place of residence. The interviews addressing the fourth question occurred primarily during operating hours at the organic and/or safe food markets established by the alternative agriculture organization I was interviewing. I recognized the impact particular places had on the answers derived from the interviews in analyzing and drawing conclusions from my data.

Youth Consumers

Interviews conducted with youth consumers were disproportionately represented by females with only six out of 24 participants being male.³ A snowball sampling technique was employed out of necessity. I had originally proposed a stratified technique to limit bias, however, limited connections and availability of a large youth population did not permit this technique. Rather, youth participants were selected through my translator's connections. This resulted in a predominately female participant pool. While my translator had male connections, these

³ Although I do pay attention to the gender of my research participants, I cannot do a gender-based analysis because I do not have enough male participants.

individuals were not interested in participating. They would “rather play video games”. The objectives of these interviews were to determine youth food choices including; types of foods consumed, where food is accessed and what factors influence food choices and to determine their understanding of organic/safe foods and healthy eating.

Interview questions (Appendix A) were straight-forward with room for elaboration. However, I was not successful in obtaining in-depth qualitative information. Participants provided brief answers and interviews typically lasted for less than 10 minutes. Even when prompted for more information, participants were reluctant to elaborate. However, quantitative data was substantial. The information obtained provides a general depiction of the food landscape and helped to identify the major factors considered when making food choices.⁴ A possible explanation for the lack of more elaborate qualitative answers could be that the majority of interviews were conducted in English. My translator was present at every interview, however, a condition for many of the participants was that they wanted to practice their English. I believe that this limited their ability to elaborate on their answers. For those interviews conducted in Thai, I used real-time translation. While it interrupted the flow of the interview, it afforded me the ability to ask follow up questions or clarify anything with the interview participant. I would also further discuss the interview with my translator if I needed further information or to confirm what was discussed in the interviews.

Alternative Agriculture Organizations

⁴ I focus on food choices in terms of objective factors including access, convenience and price, and do not take up social/cultural aspects of how people decide what they are going to eat on a given day. For an example of literature that does cover this, see Esterik, P. V. (2008). *Food culture in Southeast Asia*. Westport, CT: Greenwood Press.

Participants in the alternative agriculture interviews included major organic/safe food organizations at the local and national level as well as farmers and business owners. Again, a snowball technique was employed due to my lack of connections in the Thai alternative agricultural community. Utilizing the connection I had in Chiang Mai, I gained an interview with a representative of Green Net. She in turn provided me with access to farmer's market coordinators and so forth. Objectives for alternative agriculture interviews were four-fold:

1. To identify the objective of the organization;
2. To identify the target population for their initiatives;
3. To determine if youth are considered in initiatives/objectives; and
4. To determine their understanding of youth food choices

Appendix B includes a sample of general questions asked during interviews with alternative agricultural organizations.

Real-time translation of interviews was useful. I felt my translator had a comfortable grasp on my research. We would discuss the interview afterwards and clarify any information I was unsure of or she would further explain something she didn't think she had fully elaborated on during the interview. Interview locations were either opportunistic or determined by the participant. Overall, the interviews were useful in developing a greater understanding of the organic/safe food environment in Chiang Mai and the role of youth, if any, in this environment.

Solicited Diaries

Solicited diaries are a form of diary that is requested for the purposes of research and frequently attempts to elicit specific information. For the purpose of my research the diary acted as a record of daily food and drink consumption: a food journal. Ten interview participants, with equal representation of males and females, were invited to complete a food journal. The most

beneficial aspects of this methodology include providing basic data concerning food consumption practices and allowing active engagement with the research for the participant. Following the completion of this exercise it was my hope that the participants had a better understanding of their eating habits and where their food originates.

The food diary illustrates the daily food patterns of the informant; however it lacks substantive qualitative evidence as to the influences encouraging the choices the subject makes in regards to food consumption. A solicited diary is not an adequate stand-alone method for the purposes of my research, however in conjunction with interviews it proved to be a useful tool.

Another consideration for conducting food journals is time. Participants were asked to complete the journal every day for one week in order to develop an appropriate picture of consumption patterns. This is a large time commitment and in doing this the participants were sacrificing time spent on other responsibilities. To recognize their effort I offered monetary compensation of 300 baht (\$12 CAD). Furthermore, given time restrictions participants may have chosen to complete the journal at the end of the day. This may have resulted in inaccurate results as they may not have remembered every item of food they consumed that day.

A final limitation of food journals rests with the power relations implicit in the researcher-researched relationship. I was concerned a participant may be persuaded to leave out certain food items or be more selective in their food choices to mirror my expectations. If they were to assume I did not like processed foods, they may try to slant their data. However, as participants also participated in an interview regarding their food choices, it was possible to confirm if the interview and diary results aligned.

Food journal participants were selected through their participation in semi-structured interviews. Each participant was asked if they would like to participate in completing a food

journal until I had reached a maximum of 10 participants - five males and five females. If the participant agreed to participate my translator provided a transcribed copy of instructions on how to complete the food journal (Appendix C). The instructions outlined; what information was to be included, the length of time the journal was to be completed for, and how to submit the completed journal. Upon completion of the journal the participant would email the translator the journal upon which time they would be compensated and the journal would be translated and returned to me.

Participants were instructed verbally by my translator to maintain a journal for seven days and to identify; what foods were eaten, when they were purchased and the factors which influenced their food choices. Out of the 10 participants, only nine journals were included in my research as one of the male participant's journal was corrupted and the translator did not receive a response when he inquired for another copy.

I had initially planned for participants to carry a food journal so that it could be recorded on an ongoing basis, however, at the suggestion of my translator, participants recorded their entries online. This made it easier for my translator and it was also in a format more widely used by participants (as determined by my translator). However, the risks of using this format, are evident with the loss of a participant's data due to file corruption.

The food journal provided a snapshot into consumer habits to reconfirm what was discussed in the interview, as well as hopefully providing a greater understanding to the participant of what and where they are eating and why they are making these decisions.

Questionnaire Survey

Questionnaire surveys are an efficient and effective tool for collecting information from a large population. The survey addresses the majority of research concerns, primarily through

fixed response questions and further detailed by open-ended questions (Appendix D). Fixed responses have several advantages which include relative ease in answering for the respondent due to fixed alternatives provided and easy to interpret responses as they fall into set categories. However, fixed-response surveys lack the detail, richness and personal viewpoints that open-ended questions can provide. The purpose of the survey in my research was to verify the results in semi-structured interviews and to provide a generalization for a large population concerning food consumption practices.

The questions were designed predominantly as Likert-scale responses and multiple-choice. The Likert-scale helped evaluate how the respondents felt about changes in diet. Quantitative frequency and where they access foods were addressed through multiple-choice questions. The preliminary questionnaire survey was designed from secondary sources and was reconfigured following semi-structured interviews. This verified secondary source material and improved the accuracy for the local context. I created the questions in English first, followed by a review of the English questions with my translator, which were then translated by the translator. My Thai instructor reviewed the survey and also had her friends test it to ensure it was easily understood.

The survey was conducted two ways: a drop and pick-up strategy, and online via google survey. It combined the benefits of a self-administered questionnaire and face-to-face interviews. The sampling method ensured higher response rates without creating an interview-induced bias, and involved dropping off a questionnaire at the participant's residence or an alternative agreed upon location, and returning to pick it up at a later date. As it was also distributed online using google survey, a platform frequently used by students in Chiang Mai. This eliminated the ability of the participant to follow-up with the researcher if clarification was needed. Respondents could

choose to remain anonymous, however I asked them to identify their sex, age, place of origin (i.e. urban or rural), current place of residence and education. Overall, I hoped to achieve an equal representation of males and females but in the 34 questionnaires completed, only five were male respondents and the remainder females. This has been considered in the analysis of data obtained.

Focus Groups

I initially proposed to conduct focus groups during my fieldwork. However, given that I conducted fieldwork during the summer I had limited access to large student populations, and therefore, focus groups were not conducted.

Life History Interview

I obtained one life history interview from an individual who was active in the green movement in Chiang Mai and a long term resident of the city. I chose not to heavily rely on this data as the information provided was largely beyond the scope of my research. However, it was a useful starting point and the participant provided a connection to the president of Northern Organic Standards Organization.

This participant provided a personal, historical perspective on the alternative agriculture movement and active NGOs in Chiang Mai. Following the completion of her education, she pursued a financial career in Bangkok. She was required to work long hours in a stressful environment which led to a deterioration in her health. Following a major health scare, the participant quit her job and moved to Chiang Mai to open a coffee shop, which became popular amongst the NGOs. She has led a “green” life and is active in promoting that lifestyle in Chiang Mai. Overall, I found this interview useful for providing a historic outline of the green movement in Chiang Mai (through the participant’s personal experience as well as general

knowledge) and for identifying factors that might influence a major change in an individual's food choices and lifestyle.

Coding

All data collected during my fieldwork had to first be translated to English and then transcribed. I chose to manually code the data collected for youth consumer behaviours. While coding software was available and would have expedited the process, manual coding provided a familiarity with the data that I otherwise would not have had.

To manually code, I first had to review all data obtained to re-familiarize myself with the data and to generate a perspective of the overall trends and findings. Understanding the objectives of the research, I had to identify key words that corresponded with these objectives. This included factors listed by each participant in their food journals, interviews and questionnaire surveys. This was then recorded in an excel table and further coded into categories of factors. These included food qualities, convenience, cost and location. This same excel table included demographic information of each participant (age, gender, employment, transportation, and housing). It also recorded participants' understanding of organic and safe foods, along with healthy lifestyles and where they obtained this understanding.

After the completion of this table, I manually calculated the frequency of factors and definitions provided by participants. I also tried to determine if there was any correlation between answers and demographic factors, including housing and transportation. Data collected was largely quantitative and easily transferred to an excel format. I further entered comments within the interviews to identify qualitative answers and quotes which could be added to the analysis.

Following the transcription of the alternative agriculture interviews, I identified the relevant data (that which answered the objectives) and summarized the interview. As a result of the data collected on youth consumer behaviour I was able to provide recommendations for organizations who do not target the youth population, on how to attract youth, and why this is important.

Data collected and analyzed for youth consumption behaviours was collected through 24 semi-structured interviews, 35 questionnaires and 9 food journals. The majority of data collected lacked qualitative details, but provided a general landscape of how youth access food, what foods they access and why. This will further contribute to a limited literature on youth food behaviors, particularly youth in Chiang Mai, which will be further discussed in Chapter 4.

The following chapter will focus on the data collected from alternative agricultural participants to present the narrative of the alternative agricultural movement in Chiang Mai and their arguments for sustainable agricultural practices and organic food consumption.

Chapter 3

Thailand has a significant presence of alternative agricultural organizations at the international, national and local level. As outlined in Chapter 1, their presence is largely attributed to the negative consequences of industrial farming practices. This chapter will outline the perspective of alternative agriculture organizations in Chiang Mai and the narrative they employ to develop support for and participation in the alternative agricultural movement.

As argued by the alternative agricultural organizations, industrial farming required large capital start up to purchase technology and chemicals. Many farmers took out loans in order to participate, but the cost of maintaining the technology alongside the numerous middle-persons between the farmer and the consumer allowed for limited profitability. This left the farmer no more financially secure than before. Further, the harmful quantities of chemical pesticides required for industrial farming impacted the farmer's health. Kanokwan, president of NOSO (at the time of my research), stated that at the height of industrial farming, hospitals experienced an influx of patients presenting with negative symptoms as a result of exposure to unsafe levels of chemicals. Industrial farming practices also degraded much of the viable land due to monocropping practices, draining soil of its valuable nutrients alongside the heavy use of pesticides which further degraded the land.

The consequences of industrial farming served as a platform for alternative agricultural organizations to develop, promoting sustainable farming as a solution for the farmer, consumer and the environment. However, it is important to recognize that there is a lot of debate surrounding the present situation of farmers in Thailand. Many farmers were successful and continue to be successful through industrial farming, while farming has become a part-time activity for many farmers (Vandergeest et al., 2016).

Alternative agricultural organizations do not solely promote organic farming practices, but also safe farming practices. Safe farming practices rely on chemical pesticides and modern farming technology, but in a controlled and minimally impactful way. These organizations also encourage a return to subsistence farming where production is for the family and community and only surplus products are sold for profit. Support for the idea of a subsistence economy is tied to a broader political division in Thailand⁵ (Personal Communication, 2017). However, for the purpose of my thesis, I will not elaborate on this conflict. I recognize the limitation of the NGO narrative, particularly that a subsistence economy is not sustainable in today's context, however, NGO work on consumer engagement and promotion of sustainable agricultural practices is both important and valuable. My research focused on the marketing efforts of NGOs and engagement with youth consumers, rather than subsistence economy discourse.

Alternative agricultural organizations provide education and training to the farmer regarding organic farming practices and marketing strategies on how to best reach the consumer and establish markets where farmers can sell their product directly to the consumer. This eliminates the middle-persons and ensures greater profitability for the farmer. Their focus is not solely on the farmer. It is also on the consumer. These organizations attempt to educate consumers on alternative agricultural practices. They try to understand the needs of consumers to better influence their desire to eat organically or safely.

As part of my fieldwork I was able to interview four alternative agricultural groups operating in Chiang Mai alongside two restaurant owners who promote a healthy and/or organic

⁵ At the time of my research, there were two major political movements in Thailand – Yellow and Red. The Yellow movement was closely aligned with the monarch, which was supportive of the subsistence economy, while the Red movement was largely critical of the monarch and supportive of commercialization.

lifestyle through food. I interviewed representatives involved at different stages of these organizations. The organizations which I was able to interview included Green Net, Northern Organic Standards Organization (NOSO), Institute for Sustainable Agricultural Communities (ISAC) and Keaw Suay Homm Organic. The goal of these interviews was to determine the objectives of these organizations and business owners, and if there was any active involvement of youth or attempt to encourage youth participation in their organizations.

GreenNet

Green Net is a social enterprise that strives to connect farmers with consumers, emphasizing the importance of organic agriculture and alternative fair markets for individual health and environmental sustainability. Their motto is “Live Fair, Live Organic” (Green Net, n.d.). Mathana Apaimool, a GreenNet representative in the Mae Ta region of Chiang Mai province, offered insight into the establishment of an organic farming cooperative in Mae Ta and Green Net’s involvement in its development and success.

Green Net has been working with the Mae Ta community for over 20 years. It was not responsible for the establishment of organic practices in the area, but rather assisted in connecting the Mae Ta community with consumers to whom they could sell their agricultural products. Mathana’s father spearheaded the transition from industrial to organic farming practices in the Mae Ta region. He was concerned with the health of both himself and the environment with the use of heavy chemicals in the industrial agricultural products. Mathana’s father associated organic farming with the farming practices of his grandparents. In his view, their way of life was superior to the one he currently lived and he had a desire to return to old practices. Her father, along with the assistance of a Thai NGO, NorthNet, was able to educate

and train other farmers who were interested in abandoning industrial farming method employed at the time in the area in organic farming practices,

A small farmer's group was established in advance of GreenNet's involvement with the community. This group had attempted to sell their surplus produce in local markets in Chiang Mai city, but consumers were leery of the small group of farmers and mistrustful of outside NGOs. More often than not the farmers returned home with their produce. Green Net helped to establish a connection between producer and consumer by organizing consumer visits to the local farms where they could witness the organic farming practices. It also helped facilitate the growth of small farmers group into a farmer's cooperative, which has operated for the past 12 years. Green Net was instrumental in helping set up markets where these farmers could sell their products to consumers who were knowledgeable of organic produce and farming practices. Currently, Green Net's objective is to offer support to small-scale organic farming groups and establish fair trade markets for these farmers to sell their product. The farmer has limited knowledge in marketing organic produce and therefore, Green Net helps connect farmers with organic markets in the area or collects and distributes their product to larger organic markets. Farmers involved in Mae Ta's organic farming cooperative only sell what they cannot eat themselves.

Mathana reported a growing disconnect between youth and farming, leaving many older generations responsible for farming, which is difficult due to the labour-intensive nature of farming practices. It is typical for rural Thai youth to leave their home to be educated and establish careers in the cities, however, Mathana said that Mae Ta has experienced a larger retention of youth in recent years, which she feels is in large part due to the education received as children about farming and the benefits to both themselves and the environment by supporting

organic agriculture. Specifically, education camps are run in primary school with organized activities to teach young children about organic farming. Their knowledge of such practices at a young age has encouraged them to return to their community following their studies. They have the option to return as support staff to the cooperative or return to assist with their families' farms. GreenNet worked with the cooperative to establish such education.

Mathana was introduced to organic farming practices from the age of six. She completed her Bachelors Degree at Maejo University in Chiang Mai. She knew she did not want a corporate, office job and while she would have immediately returned to her community, she was convinced by her supervisor to work with GreenNet. She interned at their facility in Bangkok for nine months and acquired the necessary skills to train individuals in organic farming practices along with organic marketing. Mathana was largely responsible for the continued presence of GreenNet in the Mae Ta region. The cooperative is responsible for the organic farming practices while GreenNet assists with the market. It has helped farmers in Mae Ta connect with organic markets in Chiang Mai City, including JJ Market, Canal Road Market, and Nong Hoi Market, which sell both conventional and organic produce. The Mae Ta cooperative also offers a vegetable box delivery, however, unlike the local markets whose consumers are largely middle-class Thai, customers for box delivery are approximately 70% foreigners.

It is Mathana's belief that organic agriculture has only been a concern amongst Thai consumers more recently. Twenty years ago, there was limited to no support or awareness from the government to organic agriculture and therefore consumers were not aware. Now there are active policies in place by the government regarding the negative consequences of chemical farming practices and therefore consumers are more conscious of their food decisions. The late King, who was largely revered by the Thai population and influential in establishing cultural

beliefs, promoted the idea of self-sufficiency. The King's self-sufficiency model was to promote the idea of producing enough food for the family - selling only what may have been left over. The idea was formulated on the basis of protecting the environment so that farmers would always have enough for themselves. While the King's self-sufficiency model is not a widely applied practice, there are aspects currently employed. This is evident in the farmers in the Mae Ta cooperative. While many of the farmers have a commercial outlook on farming, they do sell in organic markets and support the idea of self-sufficiency in marketing.

Northern Organic Standards Organization (NOSO)

Northern Organic Standards Organization (NOSO) certifies farmers in the northern region of Thailand for organic agricultural practices. While farmers in the region expressed a desire to farm organically, there were no formal labels for consumers to identify organic produce. Without formal certification consumers were mistrustful of organic agricultural products and were unwilling to purchase them. To overcome this mistrust, NOSO was established to develop a uniform certification standard for organic products that closely mirrored international standards already in place at the time.

Kanokwan, president of NOSO, provided an outlook on the practices of the organization, along with a greater understanding of the importance of organic produce in Thailand. Prior to becoming the president of NOSO Kanokwan was a professor of nuclear medicine technology. It is through this position that she developed a strong interest in promoting organic farming and recognizing the need for standardized practices. She witnessed firsthand the consequences of heavy use of chemical pesticides in industrial farming practices, with many patients at the hospital being farmers who had fallen ill or died from ingestion of the chemicals. While the most important function of the organization is to certify organic farmers, NOSO has coordinated with

other alternative agricultural organizations to assist in increasing knowledge of the consumer and farmer about the benefits of organic farming.

According to Kanokwan, it has only been in the past decade that organic farming has been part of the National Plan in Thailand. Prior to this the Ministry of Agriculture was more prone to encourage the use of chemicals in farming. Some government officials would continue to promote this as they became wealthy off the sale of pesticides for industrial farming practices. Farmers who have transitioned to organic farming did so largely because of health reasons and heavy indebtedness. However, many farmers continue to resist the transition because of the substantial manual labour required for organic farming in comparison to industrial farming. This is furthered by the aging farming population. Few younger people return to farming as a means of employment and therefore family members have little assistance.

Kanokwan argued that while the government has made organic farming part of the national plan, the national plan is more geared to export rather than personal or local consumption. Export farming requires large plots of land and numerous workers; resources that many farmers do not possess. It also further facilitates the use of a middle-person for collection and sale. NOSO is more concerned with encouraging organic practices for self-sustainability. Many of the farmers NOSO has certified only possess small plots of land - 0.5 or 1 rai (less than an acre). Because of this, the price of certification has remained low - only 500 baht (\$20 CAD), plus the cost of transportation for inspector to travel to their farm.

When it is time to apply for the certification, NOSO will arrange for an inspector to visit at the farm to evaluate the farming techniques employed. Specifically, there are eight items that are evaluated: 1) land history; 2) location (general feature of the land - slope, flat, near waterway, near another piece of farming land, etc.); 3) soil; 4) fertilizer; 5) seed/plant used; 6) water supply;

7) pest and disease control; and 8) harvesting and transportation to the market. If the evaluation does not comply with more than 90% of NOSO standards the farmer must re-apply at a later date for certification. If the farmer receives a certificate they are subject to random inspection to ensure that they continue to comply with organic practice standards.

Without the certificate, farmers cannot sell their products in the markets set up by another alternative agriculture organization, ISAC. However, Kanokwan stated that farmers who only sell their product in their community may not require a certificate because the consumer has witnessed their farming practices first hand and is trusting of the farmer and their product. With this understanding, NOSO helps to establish a relationship between producers and consumers, through organized visits to organic farms. This helps build trust between the consumer and the farmer and NOSO has seen a growth in regular customer base. This is useful for farmers in transition, so that they can still sell their produce while they are transitioning to organic farming prior to receiving certification.

Kanokwan has limited knowledge of youth behaviors in relation to organic food consumption. Many farmers certified by NOSO are of an older generation. Their children are finishing their schooling and returning to inherit their family's farm. However, they do not possess the skills nor the knowledge to farm the land. Due to this lack of knowledge, Community Social Relationship groups have begun to develop. An individual can pay a farmer in their community to farm their land while they gain the required knowledge to do it themselves. However, this requires economic capital which many are unlikely to possess. If the individual cannot gain skills required to maintain their family's organic farm they are likely to sell it and return to the city to find work. It is therefore necessary for the children of farmers to be

introduced to farming practices at an early age so that if they do return they are equipped to do so.

Kanokwan feels it is imperative to educate younger generations in organic farming practices and foods. She does not feel that youth are aware of the value of organic foods, both for individual health and the environment. Kanokwan assumes younger generations feel that only food in supermarkets are high quality and safe for consumption, thus discouraging participation in organic markets.

Data collected on youth food purchasing behaviour would challenge Kanokwan's assumptions. As I address in detail in Chapter 4, youth are very interested in safe and healthy food. Limited youth participation in organic and safe food markets can be largely attributed to market operating hours and the types of foods available. Convenience and variety were frequently reported as being a major factor in food purchasing decisions. At the time of my research, many organic markets in Chiang Mai operated in the early hours of the morning and largely sold raw produce. The makeup of such markets were therefore not convenient to the majority of youth participants who mostly purchased ready-to-eat meals and required access to them immediately and within the vicinity of school or place of employment.

ISAC

The Institute for Sustainable Agricultural Communities (ISAC) is a Chiang Mai-based organization dedicated to educating farmers about organic processes and preparing them for organic certification by NOSO. ISAC is also involved with educating consumers on organic farming practices and produce. Its philosophy is to encourage sustainable, primarily organic, agricultural practices in Thailand both to the producer and consumer. I had the opportunity to

interview a representative of the organization who is a staff member in Chiang Mai, as well as two coordinators (also organic farmers) at the organic markets run by ISAC.

ISAC, at the time of my fieldwork had four main objectives: 1) establishing fair trade markets where farmers can sell their produce; 2) developing an experimental field in Mai Tong, a community where there were no organic fields, to encourage the community to transition to organic farming practices by witnessing what was possible; 3) creating a self-sustaining green campus at Maejo University; and 4) acting as a mediator between farmers and corporations for organic food contracts to ensure the needs of the farmer is best represented.

ISAC uses three means of communication to promote its organization and philosophy: 1) print (including posters and brochures); 2) radio stations; and 3) the ISAC website.

ISAC works to provide information to consumers and producers about organic farming, educates farmers on organic farming practices and provides a market where organically certified farmers can sell their produce to interested consumers. ISAC does not target a specific age or economic group in its marketing to consumers. Rather, they are more concerned with educating the population as a whole, to ensure everyone is knowledgeable about the benefits of organic farming to the individual and environment. ISAC has implemented educational courses at primary and secondary school levels to educate youth on organic farming. At the primary school level ISAC's objective is to educate students in a fun and interactive way. Therefore, ISAC educators attend at the school and offer drama lessons where the theme is organic and safe food practices. At the secondary school level students have the opportunity to attend a camp where a farm visit is organized and students can experience first hand the organic farming practices. Furthermore, ISAC works with the education board to determine how to incorporate organic farming knowledge into course curriculum.

ISAC has dedicated much of its resources to research on consumer behavior. They have identified three groups that shop at their organic markets. The first group is the informed customer. They are knowledgeable about the benefits of organic farming and organic foods, both for themselves and the environment, and they make every effort to achieve an organic lifestyle. The second customer group has a basic understanding of organic foods and their benefits for individual health. The third customer group does not know anything about organic foods, except that the food at ISAC-run markets is cheaper than at the supermarket, and therefore, when convenient, they will go. This group also goes infrequently. For these reasons, ISAC devotes much of its focus on educating members of this group so they may be at least as informed as the second group and hopefully, as informed as the first.

Unsurprisingly, ISAC finds that the third group makes up the majority of consumers attending at ISAC's organic markets. In their analysis older generations associate organic foods with the foods they have eaten since they were children. For younger people the largest concern is convenience. They would rather pick up prepared food items than put thought into whether or not it is organic or dedicate time to food preparation. I will confirm this finding when I present my research results in the next chapter.

As it is ISAC's concern to increase knowledge of the third group on organic consumption they have been running monthly events at their organic markets that promote the use and consumption of local organic foods. These events include cooking lessons, taste testing and general educational courses on the benefits of organic farming. Its objective is to introduce the consumer to foods they wouldn't frequently see or purchase at a grocery store or see in prepared foods and therefore debunk ideas that they are not tasty, and to emphasize the benefits of organic food to individual health.

Coordinators at JJ Market and Canal Road market, both ISAC-run organic markets, provided a broader perspective of the farmers' involvement with ISAC. ISAC is responsible for facilitating and organizing organic markets in Chiang Mai for certified farmers to sell their surplus products. They also provide training and education to farmers on organic farming practices and how to transition to such farming practices. It has proved difficult to encourage industrial farmers to change their practice and adopt organic farming practices as farmers feel there are limited profits in this type of farming. The coordinator at Canal Market estimated that of those farmers educated only 10% would have implemented their training and applied for organic certification.

At the onset of the transition to organic farming in the Chiang Mai region, and initial set up of organic markets in Chiang Mai city, there were few customers at the market and many farmers left without having sold their products. ISAC then began to facilitate meetings between the consumers and farmers to build a relationship and educate consumers on organic farming, and help farmers understand what a consumer is willing to pay for such products. It was determined that raw products should be portioned and sold at approximately 40 baht (just over \$1 CAD) consistently.

My participants reported that the majority of consumers who attend at these markets are between 30 to 50 years old. It would appear these individuals are largely responsible for the preparation of meals for their families. There is limited youth attendance at the markets. The coordinator at JJ Market has seen a recent spike, but he puts this to a new trend for organic food and does not expect it to continue. Both coordinators attribute lack of knowledge to limited attendance of youth.

Keaw Suay Homm Organic

Keaw Suay Homm Organic is an environmental group operating in the city of Chiang Mai. The organization is comprised of two five-person groups, which focus on two different strands: 1) Big Tree Conservation and 2) Urban vegetation. I interviewed Nam, a volunteer who is also a female graduate student (Masters) at CMU in cellular ecology.

Their initial project was the establishment of vegetable gardens in private residences. As it is a free service they needed to generate capital. This in turn led to development of their second project “Keaw Thung Baan”. Keaw Thung Baan delivers organic vegetables to home owners around the city. The project is promoted through word of mouth and their first customers were friends. Their customer base at the time of my research was comprised of students and employees of Rajamangala University of Technology Lanna (RMUTL) and CMU. Customers are between 20 and 50 years old. The only students involved are PhD candidates. At the time of the research they just had over 20 customers for organic home delivery.

One farmer north of the city of Chiang Mai provides the foundation with organic products at a low cost. A future goal is to be able to support a network of small local farmers to provide greater variety to customers and wider support to small scale farmers in the area. Organic certification can be completed by Keaw Suay Homm. As these farmers do not have the officially recognized certification seal, the organic certification process is explained to customers to develop a relationship of trust between Keaw Suay Homm and its customers. It is challenging for small farmers to be certified given the cost, therefore this relationship of trust allows for them to access a new consumer group which they may not have been able to on their own.

According to Nam at Keaw Suay Homm, consumption of organic products is important to their customers as they consider it healthier. Their consumers are aware of the impacts of pesticides to themselves and the environment. However, time constraints create barriers for these

individuals to access organic markets in the city, according to Nam. The delivery fee is 120 baht (\$5 CAD) for 1 kg of organic product, however, they are not provided with a choice of product as it is determined by surplus and seasonality. For Nam this project is important as following her education in ecology she is aware of the impact of present industrial practices on the environment and how an organic process is better. She identifies the problem as lack of knowledge of conservation practices among general population. Life in the city leaves individuals with limited time and restricted space for growing organic produce. Keaw Suay Homm will set up a garden for its participants who have outdoor space and advise how to maintain the garden themselves, or deliver fresh organic produce weekly to participants who have no outdoor space - solving concerns of limited time and restricted space.

Nam believes that eating healthy is a not concern for youth. Instead, youth feel that they can eat anything without consequence (i.e. will not gain weight, will not get sick, etc.). Furthermore, for those who are concerned with eating organically it is predominately for their own health. Environmental concern is limited among their potential consumer group. Therefore, they market organic produce through emphasizing benefits to the individual in order to gain traction with the vegetable box delivery program. The economy also has an impact on individual uptake of organic. It is expensive to eat organically, therefore it is important to consider ways to reduce cost.

Food 4 Thought/Bay's Café

In addition to the alternative agricultural organizations, I also interviewed businesses that shared similar objectives and promoted a healthy, organic lifestyle through food. I interviewed Bay, co-owner of Food 4 Thought/Bay's Café. Until seven months prior to my research, these two enterprises were separate. Charles, founder of Food 4 Thought, is from Minnesota, while

Bay (interviewee) is from Chiang Mai. Food 4 Thought was initially located in front of the hospital with the assumption that healthcare professionals would be concerned with eating healthy. However, this was not the case and the restaurant was largely unsuccessful, as these individuals still preferred to eat inexpensive food items sold in the food stalls outside the hospital.

When Bay and Charles merged businesses they expanded on Food 4 Thought's menu, adding new beverages and food. The majority of food is prepared in house. Food is sourced from local markets and supermarkets and they try their best to purchase organic food and local products. Their success in doing so largely depends on the availability of the products, quality and affordability. Bay's interest in opening such a restaurant was his own concern with the need to be healthy. He defines eating healthy as limiting sodium, sugar and fat intake. When he was younger this was not a concern. He had a high metabolism and the effects were not visible. In addition to his health concerns, Bay also wanted to support local farmers and businesses. Again, this is an interest that developed later in life. Farming was never an interest while growing up, as it was considered a "poor man's" profession. There were no discussions in school about farming and its benefits and consequences and therefore, no interest.

Food 4 Thought/Bay's Café's customers are primarily foreign. Bay estimated that 90% of customers are tourists and expats. The Thai that have eaten at his restaurant, particularly Thai youth, expect it to be like the Salad Concept which is a popular restaurant in Chiangmai where customers can create their own salads, although it may not end up being healthy. Salad Concept is also quicker at preparing meals and it is air conditioned. According to Bay's observation in the restaurant, youth are more attracted by brand names and limitless choices, rather than concerned with the nutritional properties of their meals. Given the foods that they offer, it is not possible to

significantly reduce the cost of the food as a last resort to attract Thai youth. It would require a change in youth understanding of foods and health to attract them to a restaurant such as Bay's Café.

Sandwichman

I interviewed the owner of company called Sandwichman, which began as a stall in front of schools offering healthy sandwiches to students. It is now both a café and catering company. When he decided he wanted to start this company, he first had to think about how he was going to sell sandwiches to students (primary and high school level). After school, students typically want a snack before returning home for dinner. Students have limited choice and little money. Therefore, he evaluated the market based on the offerings of his competitors. A student may only have 15 to 20 baht (less than \$1 CAD), and their choices are limited to pork and rice or noodles. The owner did not feel these are appropriate choices for students as within an hour or two of purchasing these foods they would be having their dinner. He had to create a sandwich that both attracted the students and met their budgets.

The first customer group were students at an all female high school. At first the students complained about the price of the sandwich in comparison to his competitors pricing, but they still wanted to try something new. Repeat customers from this group were interested in the nutritional properties of the sandwich in comparison to his competitors' foods. Sandwiches were on multigrain bread with lean protein and topped with sprouts and lettuce. Further, the serving portion of the sandwich in comparison to his competitors was a more appropriate snack portion. The second customer group were primary school students. To attract these students he needed to reduce costs. To do so, he created a teddy bear shaped sandwich. This design was attractive to the young customers and smaller than the regular brick sized sandwich which made it possible to

reduce the cost. However, Sandwichman could not compete with vendors surrounding the schools. He could not bring down his costs to match and as children are not overly concerned with “nutritious” snacks. After their initial try they returned to original vendors.

Due to Sandwichman’s limited success it no longer sells at the school, and rather targets university students and office workers. He has joined with a coffee shop near CMU that sells his sandwiches. He was able to increase the cost of the sandwich to a more profitable level. He markets his business through Facebook where he both promotes the company and the value of healthy eating. He feels that healthy eating is a growing concern amongst consumers and to increase the longevity of his business’ success he needs to make it the priority of his company.

Discussion

Chiang Mai province has a well-established alternative agricultural network, and while alternative agricultural practices are not widespread, there is substantial pressure against industrial agricultural practices. Interviewing representatives of alternative agricultural organizations provided an understanding of the objectives of the organizations and what, if any, focus is given to youth population. Alternative agricultural organizations aim to promote alternative agricultural practices for the betterment of individual health and the environment.

AA organizations have prioritized consumers as well as farmers through education and making organic and safe food produced by AA farmers available in Chiang Mai. However, they have largely failed to engage youth, with exception of Sandwichman, who has been successful in engaging youth by emphasizing factors such as convenience and price. The main reason they give for this failure is that youth are not interested in healthy and safe food or the environment.

In the next chapter I will argue that youth report considerable concern for healthy and safe food. My research conducted on youth purchasing behaviors can be used to improve efforts by alternative agricultural organizations in attracting participation by youth populations.

CHAPTER 4

Below is a presentation and analysis of the data collected during my field study on the consumption practices of youth in Chiang Mai. As discussed in Chapter 2, data was collected from a seven-day food journal, semi-structured interviews and a questionnaire survey. In total, there were 58 participants – 11 males and 47 females. A gender bias is present in the data as the data collected is heavily skewed towards female representation.

Consumer data was manually coded and divided into three categories: 1) factors influencing food choices; 2) consumer understanding and engagement with safe and organic foods; and 3) consumer understanding and engagement with healthy eating. These categories were selected as they addressed my empirical research questions.

Factors Influencing Food Choices

To code the data, participants were divided into three groups: 1) consumers who ate primarily ready-to-eat meals; 2) consumers who ate primarily prepare-at-home foods; and 3) consumers who both purchased and prepared meals.

Following a preliminary review of the data, I identified these three types of consumers, and I decided to divide the data by consumer type to determine if factors differed by consumer type. For the purpose of my research, ready-to-eat meals are defined as meals that are completely prepared by the vendor and consumed on site or taken away to be consumed elsewhere. Prepare-at-home meals are defined as foods partially prepared for purchase at a market and assembled at the place of residence.

After a preliminary reading of the data, I identified six categories of factors: 1) price; 2) convenience; 3) food qualities (taste, variety, freshness, etc.); 4) proximity; 5) dietary restrictions (i.e. allergies, diet, etc.); and 6) external influences (family, marketing, religious beliefs, etc.)

These factors were then identified for each group to determine what factors influence food choices. Demographic data, specifically; occupation, mode of transportation and living situation (housing type and occupants), were also considered influential on purchasing behavior. I assumed gender would have played a greater role, however, sample size for male participants was limited. In the next section, I will provide a breakdown of the demographic profile of each purchasing group and the factors the participants identified as influencing their purchasing decisions.

1. *Ready-to-eat Meals*

Twenty-five out of 58 participants (43%) purchase prepared foods for all their daily meals. The majority of student and professional participants lived in apartments alone or with friends. A place of residence can influence food decisions due to the facilities available for food preparation. Apartments and dormitories in Chiang Mai are largely without kitchens. At most, a fridge and/or stove top may be present, but this is largely the doing of the individual residing in the apartment. The lack of kitchen facilities presents a challenge to those who prepare their daily meals. Further, with most living alone or with friends, food decisions are individually determined. Transportation is another consideration when making food purchasing decisions. It would be difficult for an individual to transport bags of groceries on a motorbike. Instead, the motorbike facilitates access to and from food vendors. Figure 3 provides a detailed illustration of the demographic profile of ready-to-eat participants as it pertains to my research.

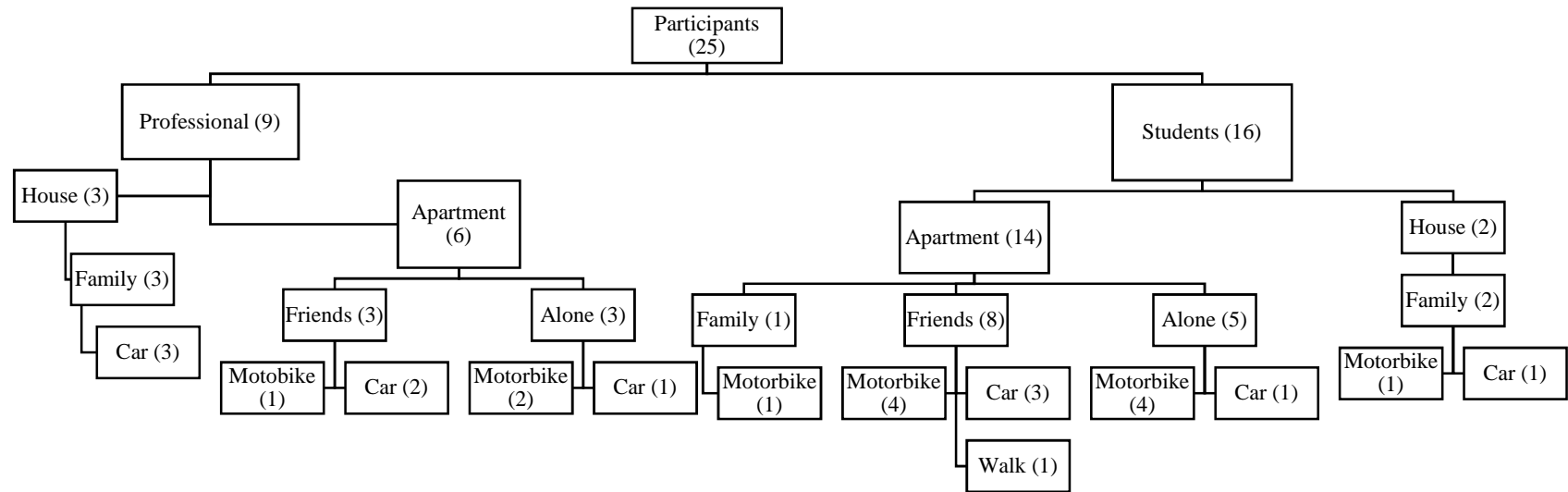


Figure 3: Demographic Profile of Ready-to-Eat Meal Participants

For these participants, the top three factors shaping food choices were taste (a food quality), proximity, and price. Participants were able to select more than one factor, and a limitation of the data was that I did not ask participants to rank the data. Taste, proximity and price were the most frequently listed factors by participants for influencing their ready-to-eat meal decisions. Qualities of concern to the AA movement such as healthy eating, freshness and so on, seem secondary although they are reported by about a fifth of respondents—but below I argue that this result might be misleading regarding the level of interest in these qualities. A complete list of factors can be found in Table 1.

No. of Participants (Total = 25)	Reported Factors shaping food decisions
17	Proximity
17	Taste
14	Price
9	Convenience (in preparation/lack thereof)
8	Quality
7	External Influences – Social (1), Marketing (2), Family Preferences (1), religious beliefs (3)
5	Freshness
5	Dietary Restrictions – allergies (2), prescribed diet (1), , diet (2)
4	Healthy Eating
3	Variety
3	Cleanliness
2	Visual Appeal
1	Government certification

Table 1: Factors influencing ready-to-eat meal food decisions

2. *Prepare-at-home meals*

Fifteen out of the 58 (26%) participants prepare the majority of their meals at home. In contrast to participants who purchase ready-to-eat meals, these participants mostly live in houses with their parents and siblings, and have access to a car. A house is equipped with the necessary equipment to prepare meals and store fresh produce. A car facilitates transportation of groceries from the supermarket or local market to the home. Further, as most of these participants live at home with their families, food choices are largely determined by the household rather than the individual who was interviewed. They identified their mother as being responsible for food purchases and meal preparation. Figure 4 shows a complete breakdown of the demographic profile of these participants.

Overall the top factors for food purchasing decisions regarding prepare-at-home meals are taste, price and quality. Healthy eating again seems like a relatively minor consideration. The biggest difference with the ready-to-eat group is the relatively lesser importance of proximity, because most of this group has access to a car as well as a kitchen. A complete list of factors can be found in Table 2.

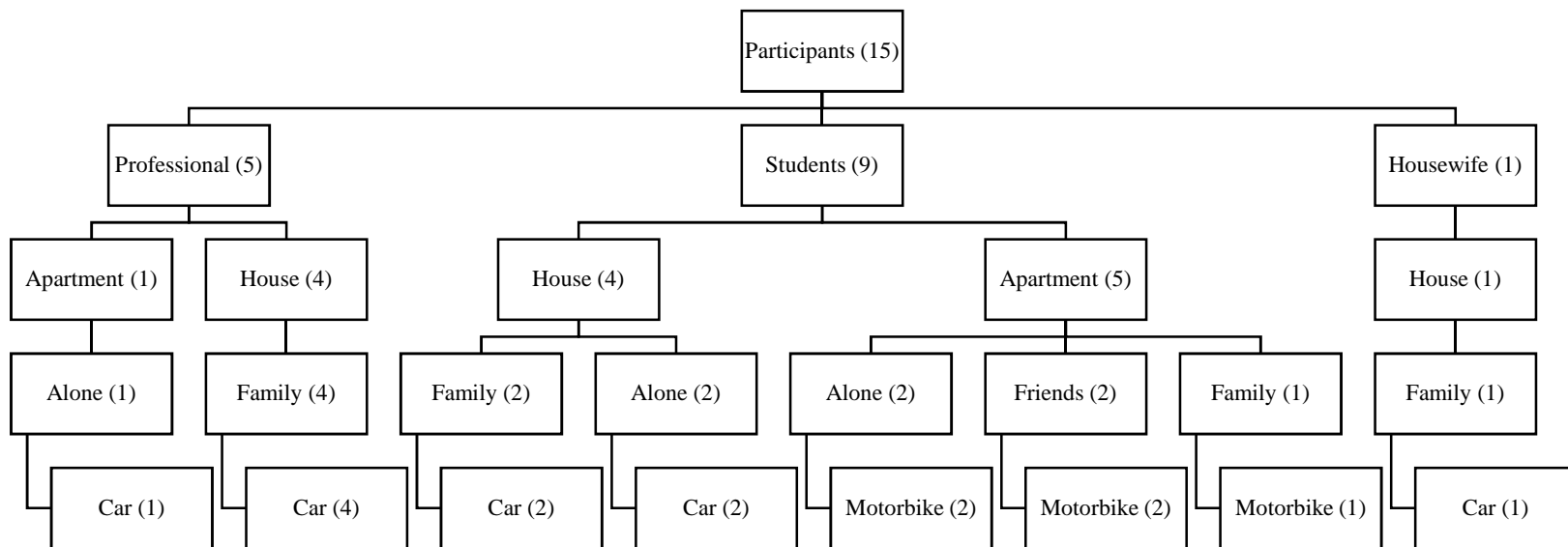


Figure 4: Demographic Profile of Prepare-at-Home Meal Participants

No. of Participants (Total = 15)	Reported Factors
9	Taste
8	Price
7	Quality
6	Convenience
5	Proximity
5	Freshness
5	Variety
5	Healthy Eating
3	External Influences - family's preferences (2), religious beliefs (1)
2	Food Restrictions – diet (1), prescribed diet (1)
2	Visual Appeal
2	Cleanliness
1	Organic

Table 2: Factors influencing prepare-at-home meal food decisions

3. *Prepare-at-home and ready-to-eat meals*

Eighteen out of the 58 participants (31%) combine preparing meals at home with purchasing daily meals. Similar to the participants who prepare their own meals, these participants largely live in houses with their families, and have access to a car. These participants mostly purchase their afternoon meals while they are away from the home at school or at work. Figure 5 illustrates the complete demographic profile of participants who purchase and prepare their own meals.

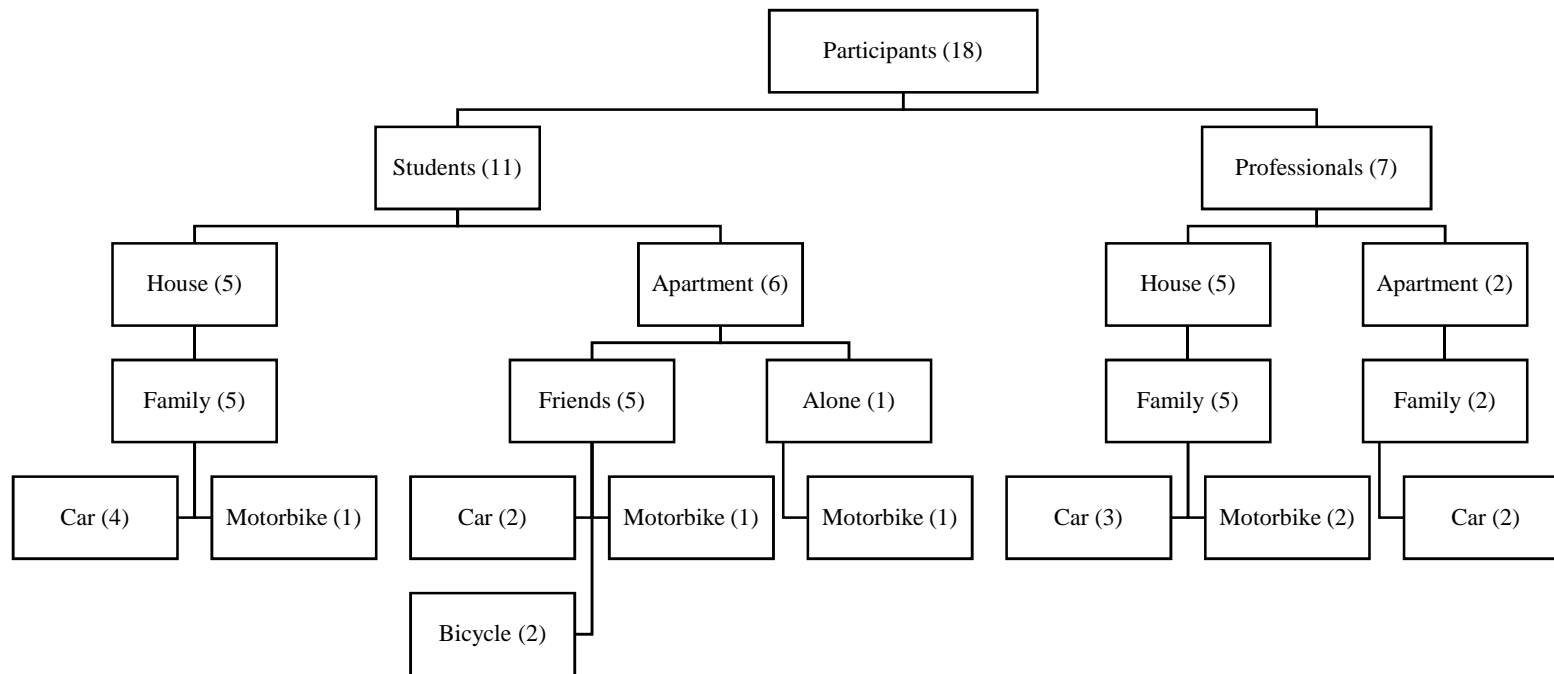


Figure 5: Demographic Profile of Prepare-at-Home and Ready-to-eat Meal Participants

Overall, the top factor for participants who both prepare meals at home and purchase ready to eat meals is similar to the first two groups, although freshness was given more priority, and proximity is again not as important as for the first group. A complete list of factors can be found in Table 3.

# of Participants (Total = 18)	Reported Factors
12	Taste
9	Freshness
9	Price
9	Proximity
6	Quality
6	Convenience
5	Healthy eating
5	Dietary Restrictions - diet (1), Allergies (2), Prescribed diet (2)
4	Variety
2	Cleanliness
2	External Influences - Marketing (1), religious beliefs (1)
1	Organic
1	Government Certification

Table 3: Factors influencing prepare-at-home and ready-to-eat food decisions

Analysis

The above-collected data shows that the top three factors participants consider when making food decisions are taste, proximity, and price. These factors are not mutually exclusive, but rather simultaneously considered when individuals are making food choices.

Almost every participant identified taste as a factor they consider when making food decisions. This would suggest food is valued more than just as a substance to be consumed for

sustenance. Food is a social experience. It is something to be enjoyed, rather than simply a source of nourishment. A participant is unlikely to consume something simply based on the fact that it is “good” for them or it is “cheap”, but rather will only regularly consume an item if they enjoy the taste.

The value of taste as a factor when making food decisions ties in with the literature cited in Chapter 1; food is a defining feature of culture. This is particularly important in Thailand. Thai foods have ingredients and flavor profiles specific to each region. While the introduction of fast foods has largely been thought to reduce the presence of local cuisine, it is not as readily apparent in Chiang Mai at the time of my research. Flavors, even in western-style fast foods, are largely Thai based. For example, when purchasing potato chips in a modern retail format such as Seven Eleven, you are more likely to find a Thai red curry flavor than sour cream and onion. Where individuals access food (i.e. modern retail formats v. wet markets) may have changed, but my research would suggest a preference for Thai flavors.

The second most important factor overall when making food choices is proximity—but this factor is most important for those purchasing ready-to-eat meals. Many food choices were based on the participant’s location at the time they needed to eat. This is less true for the second group of participants (prepare-at-home). Only 33% (5 of the 15) of participants in this group mentioned proximity – a much lower percentage than the first group (ready-to-eat) where 68% (17 of the 25) of participants mentioned proximity. The third group (prepare-at-home and ready-to-eat), also valued proximity less than the first group. This implies these two groups had more flexibility, which makes sense as these participants had greater access to a car than the first group. This flexibility allowed for greater interest in other characteristics of food including taste and price.

All participants, professional and students, worked within constrained schedules – student participants indicated having to eat between classes and study breaks, while professional participants ate during scheduled eating breaks. Therefore, time constrained their ability to freely choose. A professional participant in the first group stated that as a student she felt she had more time and therefore would not pick food based on location. Once she began working she only ate near her office or on her way home. However, almost all student participants in the first group stated they had limited time and therefore selected food based on what was nearby.

A food vendor that the majority of participants (professionals and students) purchased foods at, predominately snacks, was Seven Eleven. Seven Eleven was easily accessible in Chiang Mai, as there is at least one on located on every major street. The literature indicates the increasing role of supermarkets in changing food behaviours, however, the data collected during my fieldwork points to the importance of Seven Eleven specifically, a modern retail format and corporate branded chain convenience store. Major supermarkets are mostly located outside the city centre and away from universities. During the time of my research there were at least six Seven Eleven locations easily accessible to students, along with one location on campus. Seven Eleven was easily accessible to participants and offered a variety of snacks. Some participants also stated they purchased meals at Seven Eleven. Seven Eleven offers a wide variety of highly processed, ready-to-eat foods that are easily accessible given their multitude of locations in a confined area.

Price is another significant determinant in food purchasing behavior. Approximately half of the participants in each group listed it as an important factor for making food decisions. I found it surprising, particularly for student participants, that price was not the most important factor. Price influences where and what a participant eats. Most students who were interviewed were constrained to an allowance provided by their parents – they did not have any additional income.

Allowances could be sufficient and therefore price was not a consideration or alternatively, price of food items was consistent and a budget was easily maintained. Price was mentioned more commonly as a factor in relation to value. Participants frequently spoke of price as a value for money spent. A participant would select one food vendor over another, even when both served the same thing at the same price, because one of the vendors offered better quality ingredients or larger quantity. Local markets and food stalls were the most frequently accessed vendors as they were more reasonable. Vendors consistently charged between 30 and 40 baht (\$1 to \$2 CAD) per meal.

There were limited differences in the factors influencing food choices for professional and student participants. However, for participants purchasing and preparing meals, professionals valued convenience over price. This result aligns more with the literature on factors influencing food choices. A professional would typically have a larger disposable income than a student, but more restrictive time constraints (scheduled work days), therefore convenience would be more important than cost. Most employees are allotted a specific time for a lunch break and therefore food choices are determined by what is quick and often times easily accessible. It would be more likely price would have a greater effect on a student, as they would have more restrictive budgets.

Overall, taste, price and proximity were the most commonly cited factors participants identified in influencing their food choices. Demographic characteristics, largely transportation and housing situation, also played an influencing role on food decisions for participants. Understanding the factors that are important to young consumers when making food decisions will be useful to food vendors to attract these types of customers. In the next section, I will discuss how participants understood safe and organic foods and if these types of foods were considered when making food decisions.

Safe and Organic Foods

The factors outlined above suggest that safe and healthy food are a secondary factor for the research participants in making food choices. In this section I dig deeper into this question, and argue that the participants are actually very interested in these qualities, as demonstrated by their reported consumption patterns. I also explain why these qualities appear to be relatively unimportant in the results presented above.

Data on safe and organic food were collected through the questionnaire survey and youth consumer interviews. Unlike coding for food factors, coding for safe and organic food understandings required separate data analysis as the questions were more open-ended in the interviews and therefore, certain questions asked in the survey may not have been answered as robustly in the interview. Data presented below are largely through graphic illustration to highlight differences, if any, between answers provided by survey and interview participants.

The focus of this section is to determine 1) how safe foods and organic foods are defined; 2) how information about these terms are acquired; and 3) if safe food and/or organic food consumption are important to the participants when making food decisions.

Organic and Safe Food Definitions

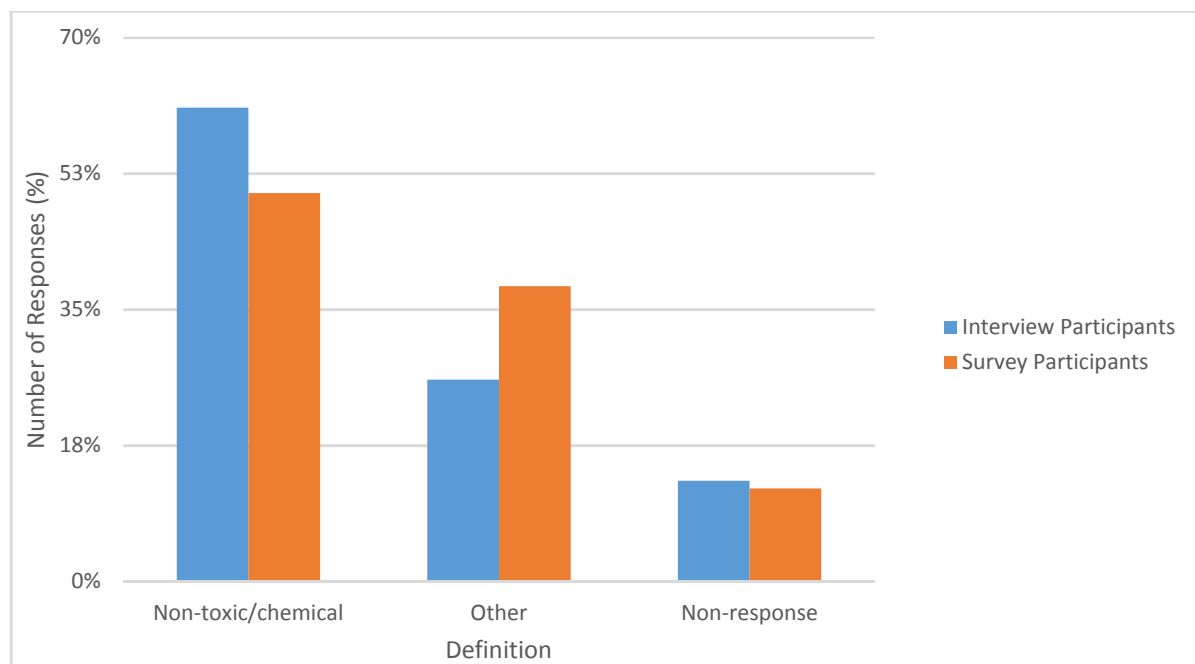


Figure 6: *Common Definitions of Organic Foods*

Figure 6 illustrates definitions provided by interview and survey respondents for organic foods. A majority of both sets of respondents defined organic foods as non-toxic or non-chemical. Other definitions included agricultural product; reduced chemical contamination; or natural - “straight from farm”.

There was greater variability in safe food definitions and therefore a graphic representation will not be provided. Survey respondents largely defined safe foods as “beneficial to one’s health” (34%), while interview participants defined safe foods as clean (22%). Other definitions include the same as organic food; non-toxic; fresh; or limited amounts of chemicals. More respondents did not provide a definition for safe food in comparison to organic foods – 48% of interview participants and 23% of survey participants. The question pertaining to defining safe foods was open ended for both interview and survey respondents. While an open-ended question reduces bias in responses, it can also contribute to a higher non-response rate.

Sources of Information for Safe and Organic Foods

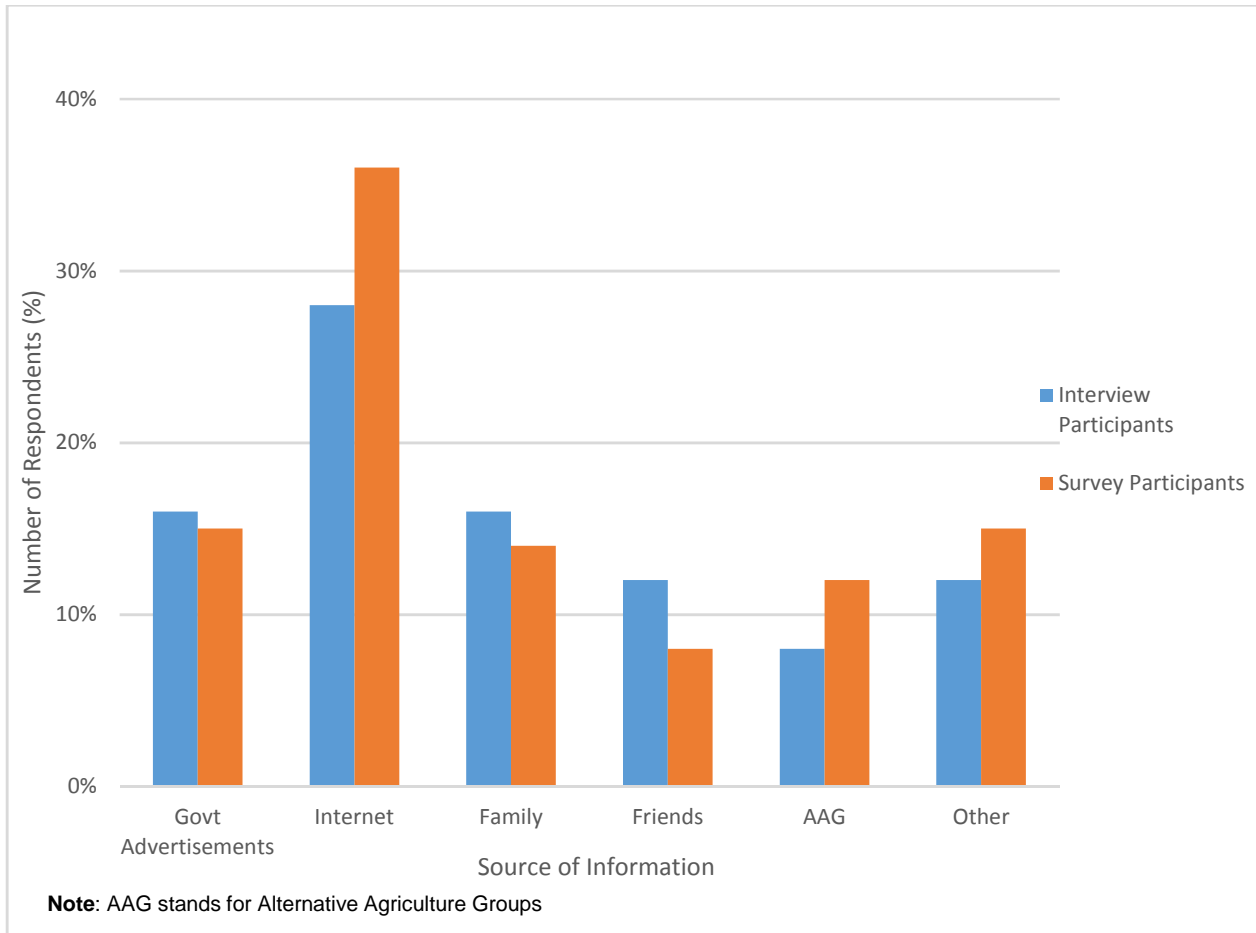


Figure 7: *Accessed Sources for Organic and Safe Food Information*

Figure 7 illustrates the most commonly accessed sources of information used by respondents. The internet is the largest source of information for youth consumers in acquiring information for organic and safe foods. Specific sites were not referenced, but it could be inferred that information was acquired through basic internet searches or social media (largely Facebook). Further, it is important to recognize that some of the sites accessed could have been established by AA groups. Information acquired through advertising included pamphlets located in doctor’s offices, advertisements on TV or in grocery stores. Information obtained through alternative agriculture groups were accessed through school attendance, family interest in

organic/safe foods or attendance at a local market that would be sponsored by an alternative agriculture group.

Consumption of Organic and Safe Foods

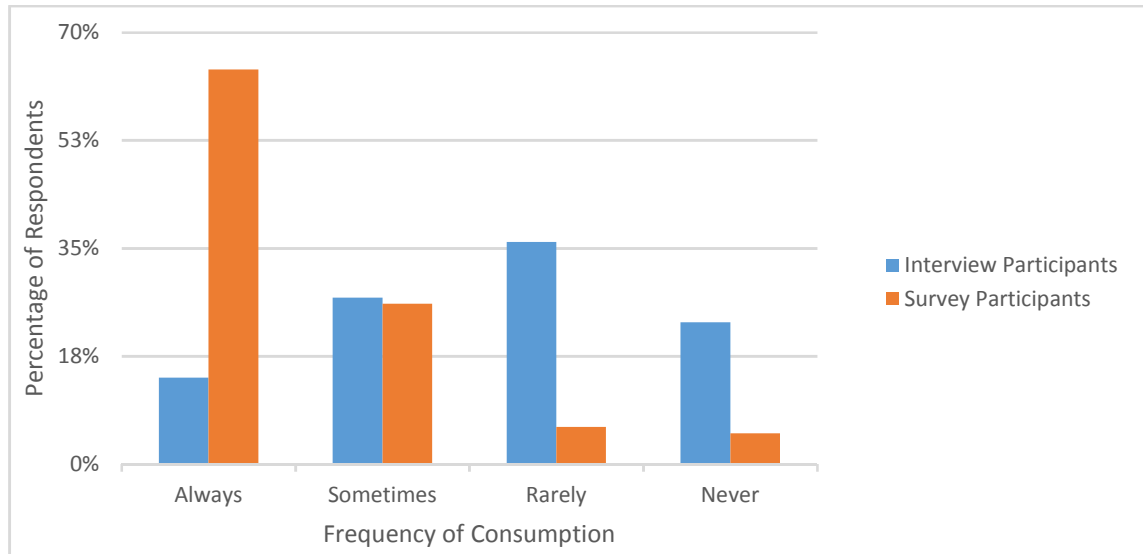


Figure 8: *Consumption of Safe and Organic Foods*

Figure 8 highlights the frequency of consumption of organic and safe foods between interview and survey respondents. Participants did not readily differentiate between organic and safe foods. Many considered them the same thing and therefore specific data that distinguished between organic and safe food consumption could not be acquired. Instead, I combined the data. There are more substantial differences between interview and survey responses. This could be a result of the makeup of the participants or how the questions were administered. In the survey, questions were fixed response and easily separated between safe and organic foods. However, the majority of participants consumed at least some organic and/or safe foods in their diet—a result that seems to contradict the results presented earlier that suggest that these qualities are a secondary concern.

Analysis

The results suggest that participants have a fairly limited understanding of organic and safe foods. The most common definition provided by participants was non-chemical or non-toxic. Organic food is not solely foods without chemicals; it has an associated production system that ensures foods are produced based on strictly defined national and/or international standards. Quality Assurance International provides a comprehensive definition of organic foods and the organic production system:

Organic means produce and other organic ingredients in retail products are grown without the use of synthetic pesticides and fertilizers, sewage sludge, genetically modified organisms or ionizing radiation. Animals that produce meat, poultry, eggs and dairy products are not given antibiotics or growth hormones.

An organic production system is managed to respond to site-specific conditions by integrating cultural, biological and mechanical practices that foster cycling of resources, promote ecological balance and conserve biodiversity. (Quality Assurance International, n.d.)

Further, participants in the research had a limited ability to differentiate between safe and organic foods. Participants could not readily elaborate on the meaning or implication of these definitions. If the meaning and application of organic and safe foods were better understood by participant, they might be more likely to consume these products.

The largest source of information for participants was the internet. Participants did not specify what sites they would access for information on safe and/or organic foods, but it can be assumed that by accessing the internet for information it was of their own accord. The participants obtained information on organic and safe foods for their own knowledge and understanding rather

than being subjected to information acquired inactively through advertising and school education. It can therefore be inferred that these participants have an active, rather than passive, interest in safe and/or organic foods. This is in contrast to the analysis of AA organizations interviewed for this research as presented in the previous chapter.

The next section takes up this question in more detail, by exploring how participants understand healthy eating and how it is a consideration in their daily eating habits.

Healthy Eating

Similar to coding for organic and safe food data, information collected from surveys and interviews for healthy eating habits were coded separately, as the data collected in the surveys was restricted to a limited set of answers, while the interview data was open-ended. However, data has been presented graphically to illustrate similarities and differences of data collected.

Defining Healthy Eating

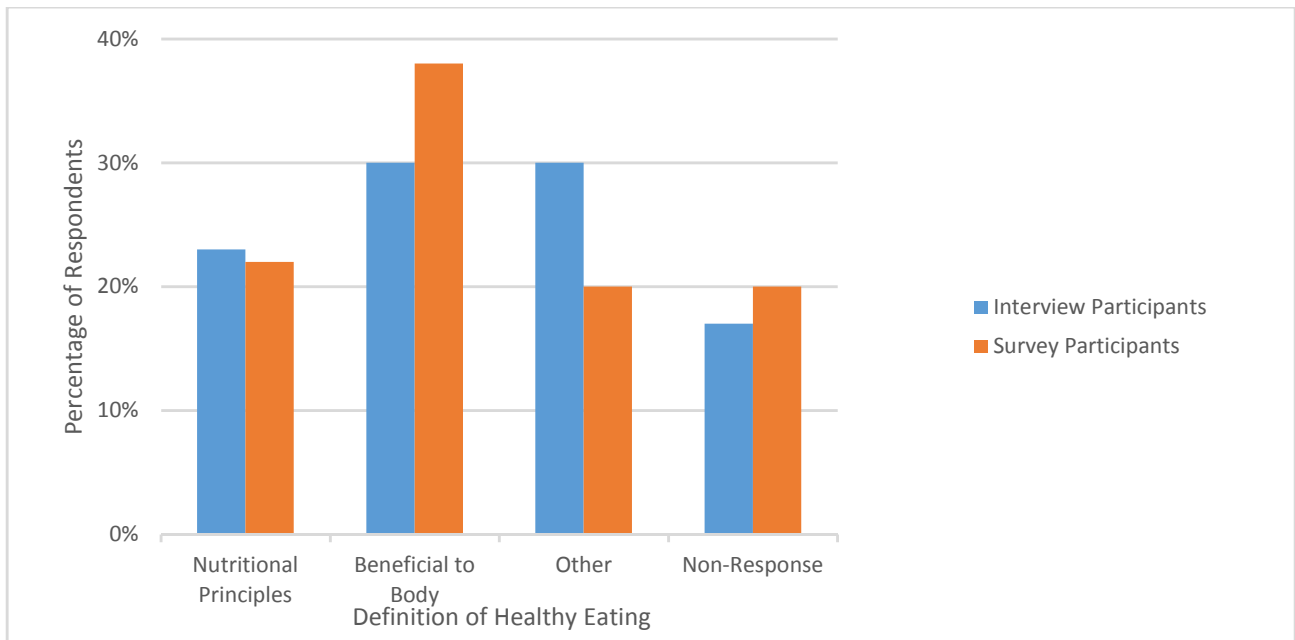


Figure 9: *Definitions of Healthy Eating*

Figure 9 illustrates the main responses provided by survey and interview participants to define healthy eating. The majority of participants provided a definition of healthy eating. The most common definition offered by both participant groups was healthy eating as positively contributing to one's health, understood as consuming foods that are "good for the body". This was determined both as a physical response in the body – foods that are healthy maintain a slim body shape – as well as overall health. Respondents felt that healthy foods could protect the individual from illness both in the short and long term. One respondent, a female student, who identified as not currently eating healthy, expressed a desire to change her current eating habits as she believed it would impact her health later on in life.

Another common definition provided was defining healthy eating in relation to nutritional principles. Participants largely referred to nutritional principles as an understanding that there are five food groups for which specific serving portions are assigned and a healthy diet adheres to these groups and serving portions. This understanding is from a food guideline published by the Ministry of Health in Thailand which identifies five food groups and recommended portion sizes in a nutritional flag (Figure 10).



Figure 10: Thai Nutritional Flag (Food and Agricultural Organization of the United Nations, n.d.)

This differs from North American/Western understanding of healthy eating which focuses on the individual nutrient components of food rather than the food itself, also known as nutritionism (Scrinis, 2008). Nutritionism is a reductive approach to evaluating food choices. Instead of identifying food as healthy or unhealthy, individual nutrients are identified as good or bad for the body (i.e. individuals should avoid foods high in saturated fats). Processed foods have an advantage with this type of understanding of healthy eating because these foods can be manipulated to include more or less of a nutrient and are easily identified by the nutrition label included on the packaging. Whereas nutrients in fresh foods (what you find in organic and safe

food markets) are not as easily identified. Therefore, it is positive that the Thai respondents have not yet adopted nutritionism as the dominant paradigm for evaluating food choices. Instead, their current food group approach is compatible with AAN emphasis on fresh, healthy foods.

Sources of Healthy Eating Knowledge

Interview participants were not explicitly asked where they obtained information about healthy eating, therefore, sources accessed were inferred through answers to other questions asked during the interview. Friends appeared to be the most important source for information regarding healthy eating, followed by family. Information obtained from family and friends largely related to body image. One respondent stated his interest in healthy eating was influenced by his friends when they began to exercise regularly and in turn monitor what they eat in order to obtain a muscular body. Another respondent developed her healthy eating habits in high school, when her friends became concerned with body image and equated beauty with thinness. She in turn monitored what she ate and began exercising regularly. A group of participants whom I interviewed together stated that they supported one another in influencing their food choices. Temptation to eat unhealthily due to social pressures or the surrounding area can further influence a person's eating habits. A respondent who frequently eats healthy finds it can sometimes be difficult as where she works she is surrounded by cake shops.

Survey respondents selected the internet (26%) as the largest source of information for healthy eating. Again, it is important to recognize that the internet can include other sources, including government websites. Other sources of information include food packaging labels (16%); health professionals (13%); friends (12%); family (9%); food industry (8%); school (8%); advertisements (6%); and government agencies (3%).

Participant Attitudes towards Current Eating Habits

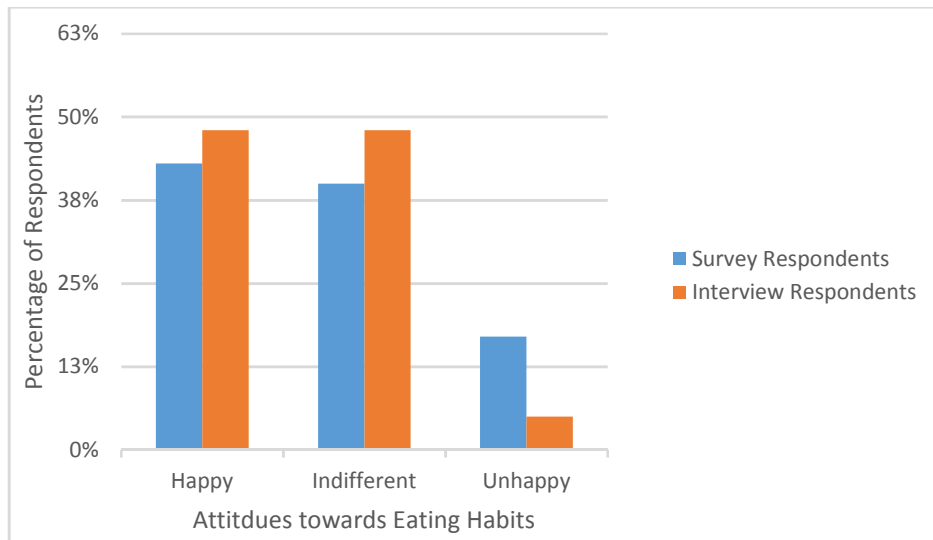


Figure 11: *Participant Attitudes towards Current Eating Habits*

Figure 11 illustrates participants’ feelings towards their current eating habits. The majority of participants are either happy or indifferent towards their current eating habits. A few respondents expressed a negative attitude towards their current eating habits, and one of the unhappy respondents reported to wanting to change their current eating habits as, “I think (my current eating habits) are not good for me. As I become older, it will affect me.”

Analysis

Taste was an important factor for participants in determining their food choices. Healthy foods largely did not resonate with students as being tasty. One respondent backed this up by saying, “if presented with a choice between French fries and salad, you know the salad is good for you but you would rather eat the fries”. Very few participants who reported eating healthily emphatically stated that the food they eat is ‘tasty’. Instead, many respondents who reported eating healthily on a consistent basis did so because they did not wish to gain weight. Therefore, it does not mean that those who are eating healthily actually enjoy what they are eating, which can impact a person’s commitment to maintaining a healthy lifestyle.

Another consideration is the proximity of healthy foods to the individual. Only those participants who mostly prepared their own meals considered health properties of foods an important food quality. This suggests that these participants invest great time in their food decisions and specifically food preparation. In listening to those participants who specifically said they eat healthy, these participants were less concerned about the location of food - which has proven to be a major deterrent for others. Healthy eating should be marketed as a more accessible and quick food that can be enjoyed.

Over 20% of interview and survey respondents defined healthy eating according nutritional principles, which is the nutritional guideline published by the Ministry of Health in Thailand. However, none of these respondents reported following the guideline when making food choices. By contrast, North American/Western understandings of healthy eating are strongly rooted in nutritionism - an ideology where foods are valued based on their nutrient composition.

A focus on nutrient composition ignores qualitative food factors, which respondents in my research value when making food choices. While healthy eating is important to interview and survey respondents it cannot come at the expense of factors such as taste, freshness or price. Alternative agricultural groups should therefore focus on marketing organic and safe foods as healthy, affordable and tasty.

Discussion

Involving and educating youth in alternative agricultural practices is important to ensure the continued progress of the alternative agricultural movement. However, my research on youth consumption behaviours and alternative agricultural groups indicate that there is limited involvement and understanding of youth in the alternative agricultural practices. To encourage

youth participation and ensure the continued presence of alternative agricultural practices in Thailand, I suggest that the AAN further address the following:

1. Increase demand for organic and safe foods through expanding knowledge of organic and safe foods amongst youth consumers; and
2. Redesign organic and safe food markets to better service youth population based on factors that influence food purchasing behaviours.

In order to increase demand among consumers it is imperative to educate consumers in organic farming practices and the benefits of organic products both to the individual and the environment. Lack of knowledge amongst consumers is commonly considered the reasoning for lack of motivation to eat and/or live organically. Data presented in this chapter illustrated that youth participants who were introduced to organic healthy eating practices at a young age reported maintaining those practices in early adulthood.

Further, data presented in this chapter on food purchasing factors can be utilized by the AAN to redesign organic and safe food markets to better attract youth attendance. The three most important factors for participants regarding food purchasing behavior were food qualities (this covered a wide range), price and proximity. Many organic and safe foods could satisfy food quality factors including freshness and variety. The majority of foods sold at markets are raw produce grown in local farming regions. It is largely at these markets where many varieties of Thai vegetables and fruits can be purchased in comparison to the produce sold at the supermarket. While there is a large variety in supermarkets, it is that of access to international foods rather than local produce.

However, price and proximity could prove challenging. Organic and safe foods are largely sold at local markets which operate on specific days at scheduled times and locations.

These times are frequently early in the morning and are not always located centrally (i.e. close to the business center or schools). There was a safe food market that operated on Wednesdays near Chiang Mai University, however, it began at 5am and finished at 9am. Typically markets operated once per week and at early hours in the morning to accommodate farmers in allowing them to return to their work after selling in the market. While convenient for the farmer, it is inconvenient to the consumer. AAN organizations should work with farmers to devise a plan for selling produce which limits the number of persons attending the market so that a day away from the farm is not detrimental. Furthermore, place of residence is a limiting factor. The lack of cooking facilities means that more attention to the form in which food is delivered is important, as not everyone can cook at home.

The significance of food quality factors in food purchasing behaviours could resonate with alternative agriculture groups. Specifically, healthy eating, freshness, cleanliness and government certification can be emphasized in marketing strategies of alternative agricultural groups to promote youth participation in their markets. One factor that was not primarily considered by respondents is the environmental benefits. As mentioned in Chapter 1, eating habits are developed at a young age and therefore, efforts should be made to specifically target youth populations to broaden customer base. Specifically, more than half of respondents reported being concerned with eating healthily. A useful strategy for alternative agriculture organizations could be the sale of ready to eat healthy food options at their markets or providing recipe cards that use the fresh produce sold at the markets.

Conclusion

My general research objectives were: 1) to identify some of the factors that shape where youth access food, with a focus on location and food qualities, and youth understanding of what constitutes alternative agriculture as healthy food and/or safe food; 2) to understand alternative agricultural organizations analysis of youth engagement in alternative agriculture; and 3) using the results of my research, identify opportunities for alternative agricultural groups to better engage youth. I asked the following empirical questions to achieve my research objectives:

1. Where do youth get their food? What amount and type is obtained from ‘modern’ versus ‘traditional’ retail formats? What other food sources are available to youth?
2. What factors influence youth food decisions vis-à-vis where and what to purchase?
3. How often do youth consume organic and/or safe food, and why?
4. Who are some of the key alternative agricultural organizations? What are their activities? How are they engaging youth, or not? What is their analysis of youth engagement in alternative agriculture?

I employed a multi-method approach which included; semi-structured interviews with members of Alternative Agriculture organizations and youth consumers, a questionnaire survey and a food journal. I acquired information from 58 youth participants and 8 individuals and/or organization involved in the alternative agriculture network.

My research sought to contribute and expand upon current literature on food purchasing behaviours of youth. My research supports conclusions in the current literature that urban populations are becoming increasingly reliant on prepared, ready-to-eat foods. Both student and professional respondents reported time constraints contributing to their preference of ready-to-eat meals. Further, residences in urban areas frequently do not come equipped with the necessary

facilities (i.e. kitchen) to prepare your own meals. Outside of respondents who lived with their families, the majority lived in apartments or on-campus residents, which had little to no kitchen facilities.

The literature discusses the impact of an expanding modern retail sector on food purchasing behavior. It largely focuses on the presence of supermarkets; however, in my research, Seven Eleven and other convenience stores were the only modern retail formats that respondents accessed for food. Its numerous locations make it a convenient choice for purchasing snack foods as there is usually one close by. In comparison, supermarkets are located outside of the city centre and away from university campuses making them difficult to access.

The literature on food transitions with the industrialization of the food system is limited and largely focused on the nutrition transition and adult populations. However, youth are critical to understanding future food trends, and they also experience many changes in food behaviour due to changing circumstances (i.e. living independently, joining the workforce, etc.). Further, identifying food behaviour patterns of youth should help to counter unhealthy food consumption trends and increase consumer knowledge about the sources of food they consume.

Chiang Mai province has a well-established alternative agricultural network that exerts pressure against industrial agricultural practices. Involvement and education of youth has been limited in scope because members of the alternative agricultural organizations, including GreenNet, NOSO and ISAC think that youth are not interested in alternative agriculture. My research on food purchasing behaviours indicates that youth are interested in healthy food and that this interest might provide an opening that could assist the alternative agricultural network in Chiang Mai encourage youth participation and ensure the continued presence of alternative agricultural practices in Thailand.

Data collected from youth participants revealed that the top three factors respondents considered when making food decisions are taste, proximity and price. Taste indicates that food is more than a source of sustenance. It is an enjoyable experience shared amongst people. Food is a defining feature of culture; and while western-style fast foods are popular in Chiang Mai, Thai flavours remain present. Respondents further indicated the importance of location in reference to where they were at the time they would need to eat. This is especially true for participants purchasing ready-to-eat foods. Food vendors needed to be close by to school or work, or along the way to their destination. Very few respondents reported going out of their way to purchase foods. Price is an important factor for participants in relation to value. Participants selected between different food vendors based on the quality of ingredients or portion size. Demographic characteristics, particularly housing type and transportation, influenced the factors participants identified when making food decisions.

While not listed as a primary consideration in food choice in the list of factors determining food choices, further research revealed that youth were actively interested in safe and healthy food, and generally aware of the availability of safe and organic options. Most participants consumed organic and safe food on a regular basis; they actively sought out information, and demonstrated concern for how food impacts their bodily health. These results contrast with the assumptions of the AA organizations about youth's interest in healthy food and suggest openings for how these organizations could more effectively engage youth by building on their interest in healthy food while taking into account the factors that influence their food choices.

My research on youth consumption behaviour and alternative agricultural groups indicate that there was limited involvement and understanding of youth in the alternative agricultural

practices at the time of my research. However, factors that this research identifies as influencing food decisions can be useful to food vendors, including AA groups seeking to market to youth, to formulate marketing strategies that will encourage customers to purchase their foods. The results of my research may be used to identify opportunities to better engage youth. For example, the majority of respondents reported eating ready-to-eat meals. At the alternative agriculture markets, ready-to-eat meals are limited and are not certified as safe or organic. As the markets are typically not located near schools or business centers, they are not a convenient option for youth. Combined with the limited variety of ready-to-eat meals there is limited incentive for youth to attend at these markets. Hours of operations are also a limiting factor for youth participation. Markets typically operate in the early morning hours, to accommodate the farmers returning to work. However, a wider customer base could be reached if hours were extended to accommodate breakfast and lunch hours. It may be beneficial for alternative agricultural groups to set up food stalls on campus where students may purchase ready-to-eat organic and/or safe foods. This will improve access for youth and serve as an opportunity to strengthen relations between AA groups and youth. This is currently being doing on major university campuses in Thailand, including Prince Songkla University (P. Vandergeest, personal communication, 2019).

Results suggest that participants have a fairly limited understanding of organic and safe foods. If the meaning and application of organic and safe foods were better understood by participants, it could encourage consumption of these products and facilitate a greater concern for alternative agricultural practices amongst youth.

Mathana, a representative from GreenNet, stated that there is an educational program in the Mae Tae region for children teaching them about alternative agricultural farming practices. Mathana attributes the large return of these children to the community following completion of

their higher education resultant from this program. GreenNet's educational program could be used as a model for other alternative agricultural organizations to promote their cause and encourage support of alternative agricultural practices from an early age. Concern for or adoption of these practices is unlikely to be achieved if people are not properly aware of alternative agricultural practices and organizations. Increasing the number of people an organization reaches will further their objectives and helps them reach their goals. It is important to recognize that the current youth population will play an important role in determining future food environments and therefore it is demographic which deserves attention.

Overall, my research provides an introduction to understanding food purchasing behaviours of youth in Chiang Mai and has identified opportunities for the alternative agricultural network to better engage youth participation in alternative agriculture. My research makes an original contribution engaging youth in a country where food production, distribution and consumption is undergoing rapid change. It would be beneficial to conduct research in countries undergoing these transitions. Observers should be careful about making assumptions about how youth value food qualities.

References

- Banwell, C., Dixon, J., Seubsman, S. A., Pangsap, S., Kelly, M., & Sleigh, A. (2013). Evolving food retail environments in Thailand and implications for the health and nutrition transition. *Public Health Nutrition, 16*, 4, 608-15.
- Blichfeldt, B. S., & Gram, M. (2013). Lost in Transition? Student Food Consumption. *Higher Education: the International Journal of Higher Education and Educational Planning, 65*, 3, 277-289.
- Chitakunye, D. P., & Maclaran, P. (2008). The everyday practices surrounding young people's food consumption. *Young Consumers: Insight and Ideas for Responsible Marketers, 9*(3), 215-227.
- Coe, N. M., & Lee, Y. S. (2006). The Strategic Localization of Transnational Retailers: The Case of Samsung-Tesco in South Korea. *Economic Geography, 82*(1), 61-88.
- Drewnowski, A., & Popkin, B. M. (1997). The nutrition transition: new trends in the global diet. *Nutrition reviews, 55*(2), 31-43.
- Elwood, S. (2010). Mixed Methods: Thinking, doing and asking in multiple ways. *The SAGE handbook of qualitative geography* (pp. 94-114). Los Angeles: SAGE.
- Fischler, C. (1988). Food, self and identity. *Social science information, 27*(2), 275-292.
- Food and Agriculture Organization of the United Nations. (n.d.). Food-based dietary guidelines - Thailand. Retrieved from <http://www.fao.org/nutrition/education/food-based-dietary-guidelines/regions/countries/thailand/en/>
- Giddens, A. (1990). *The consequences of modernity*. Stanford: Stanford University Press.
- Google Maps. (n.d.). Retrieved from

<https://www.google.com/maps/place/Chiang+Mai,+Mueang+Chiang+Mai+District,+Chiang+Mai,+Thailand/@17.4077717,91.1687204,5z/data=!4m5!3m4!1s0x30da3a7e90bb6f5d:0x98d46270a59b4367!8m2!3d18.7060641!4d98.9817163>

Green Net. (n.d.). Green Net Cooperative. Retrieved from

<http://www.greennet.or.th/en/about/greennet>

Hawkes, C. (2005). The role of foreign direct investment in the nutrition transition. *Public Health Nutrition-Wallingford*, 8(4), 357-365.

Hawkes, C. (2007). *Globalization, food and nutrition transitions*. Geneva: World Health Organization.

Henderson, V. (2002). Urbanization in developing countries. *The World Bank Research Observer*, 17(1), 89-112.

Horrigan, L., Lawrence, R. S., & Walker, P. (2002). How Sustainable Agriculture Can Address the Environmental and Human Health Harms of Industrial Agriculture. *Environmental Health Perspectives*, 110, 5, 445-456.

Isaacs, B. A., Dixon, J., & Banwell, C. (2010). Fresh market to supermarket: nutrition transition insights from Chiang Mai, Thailand. *Public Health Nutrition*, 13, 6, 893-7.

Jackson, P. and Russell, P. (2010). Life History Interviewing. *The SAGE handbook of qualitative geography* (pp. 172 – 193). Los Angeles: SAGE.

Jaffe, J. A., & Gertler, M. (2006). Victual Vicissitudes: Consumer Deskillling and the (Gendered) Transformation of Food Systems. *Agriculture and Human Values*, 23, 2, 143-162.

Kasem, S., & Thapa, G. B. (2012). Sustainable development policies and achievements in the context of the agriculture sector in Thailand. *Sustainable Development*, 20, 2, 98-114.

- Kelly, M., Banwell, C., Dixon, J., Seubsman, S.-A., Yiengprugsawan, V., & Sleigh, A. (2010). Nutrition Transition, Food Retailing and Health Equity in Thailand. *Australasian Epidemiologist*, 17, 3, 4-7.
- Kosulwat, V. (2002). The nutrition and health transition in Thailand. *Public Health Nutrition*, 5, 183-9.
- Laska, M. N., Graham, D. J., Moe, S. G., & Van, R. D. (2010). Young adult eating and food-purchasing patterns food store location and residential proximity. *American Journal of Preventive Medicine*, 39, 5, 464-7.
- Lefferts, L. (2005). Sticky rice, fermented fish, and the course of a kingdom: The politics of food in Northeast Thailand. *Asian Studies Review*, 29, 3, 247-258.
- MacClancy, J. (1992). *Consuming culture*. Chapman.
- Mintz, S. W., & DuBois, C. (2002). The Anthropology of Food and Eating. *Annual Review of Anthropology*, 31, 99-119.
- National Statistic Office Thailand. (n.d.). Population and Housing Census 2000. Retrieved from http://web.nso.go.th/pop2000/prelim_e.htm
- O'Hara, S. U., & Stagl, S. (2001). Global Food Markets and Their Local Alternatives: A Socio-Ecological Economic Perspective. *Population and Environment*, 22, 6, 533-554.
- Pingali, P. (2007). Westernization of Asian diets and the transformation of food systems: implications for research and policy. *Food Policy*, 32(3), 281-298.
- Pingali, P. (2010). Changing food systems in the developing world. *Obesity prevention: the role of brain and society on individual behavior* (pp. 511-520). Amsterdam: Elsevier/Academic Press.

- Pollan, M. (2007, January 28). Unhappy Meals. *The New York Times Magazine*. Retrieved from <https://www.nytimes.com/2007/01/28/magazine/28nutritionism.t.html>
- Popkin, B. M. (1994). The nutrition transition in low-income countries: an emerging crisis. *Nutrition Reviews*, 52, 9, 285-98.
- Popkin, B. M. (2003). The nutrition transition in the developing world. *Development Policy Review*, 21(5-6), 581-597.
- Popkin, B. M. (2006). Technology, transport, globalization and the nutrition transition food policy. *Food Policy*, 31(6), 554-569.
- Quality International Assurance. (n.d.). International Certifications. Retrieved from <http://www.qai-inc.com/certification-services/organic/international.php>
- Reardon, T., Timmer, C. P., & Minten, B. (2012). Supermarket revolution in Asia and emerging development strategies to include small farmers. *Proceedings of the National Academy of Sciences of the United States of America*, 109, 31, 12332-7.
- Rigg, J., Veeravongs, S., Veeravongs, L., & Rohitarachoon, P. (2008). Reconfiguring rural spaces and remaking rural lives in central Thailand. *Journal of Southeast Asian Studies*, 39(3), 355-381.
- Sangkumchaliang, P., & Huang, W. C. (2012). Consumers' perceptions and attitudes of organic food products in Northern Thailand. *International Food and Agribusiness Management Review*, 15(1), 87-102.
- Scrinis, G. (2008). On the Ideology of Nutritionism. *Gastronomica*. 8 (1), 39-48.
- Seubsman, S., Kelly, M., Yuthapornpinit, P., & Sleigh, A. (2009). Cultural resistance to fast-food consumption? A study of youth in North Eastern Thailand. *International Journal of Consumer Studies*, 33, 6, 669-675.

- Shiva, V. (1991). *Ecology and the Politics of Survival: Conflicts over Natural Resources in India*. Tokyo, Japan, New Delhi, Newbury Park: United Nations University Press, Sage Publications
- Sobal, J. (1999). Food System Globalization, Eating Transformations, and Nutrition Transitions. *Food in global history*. (pp. 171-193). Boulder, Colo.: Westview Press.
- Southgate, D. D., Graham, D. H., & Tweeten, L. G. (2007). Asia. *The world food economy* (pp. 267-291). Malden, MA: Blackwell Pub.
- Thitinunsomboon, S., Chairatana, P. A., & Keeratipibul, S. (2008). Sectoral innovation systems in agriculture: The case of rice in Thailand. *Asian Journal of Technology Innovation, 16*, 1, 83-100.
- USDA. (2013). Thailand Retail Foods, GAIN Report # TH3011. Bangkok, Thailand. USDA Foreign Agricultural Service.
- Vandergeest, P. (2009). Opening the Green Box: How Organic became the standard for alternative agriculture in Thailand, Berkley Workshop on Environmental Politics, April 17, 2009, California.
- Vandergeest, P., Young, M. & Scott, S. (2016). Unfinished manuscript.
- Van Esterik, P. (2006). "From Hunger Foods to Heritage Foods: Challenges to Food Localization in Lao PDR." *Fast food/slow food: the cultural economy of the global food system*. Lanham, MD: Altamira Press. 83-96.
- Van Esterik, P. (1992). From Marco Polo to McDonald's: Thai cuisine in transition. *Food and Foodways, 5*, 2, 177-193.
- Wahlqvist, M. L., & Lee, M. S. (2007). Regional food culture and development. *Asia Pac Journal of Clinical Nutrition, 16*(Supplement 1), 2-7.

- Walker, M. (1996). *A survey of food consumption in Thailand*. UVic Centre for Asia-Pacific Initiatives, University of Victoria.
- Weis, T. (2010). The Accelerating Biophysical Contradictions of Industrial Capitalist Agriculture. *Journal of Agrarian Change*, 10, 3, 315-341.
- World Health Organization. (2013). Globalization. *Trade, foreign policy, diplomacy and health*. Retrieved from <http://www.who.int/trade/glossary/story043/en/>
- Yasmeen, G. (2000). Not 'From Scratch': Thai food systems and 'public eating'. *Journal of Intercultural Studies*, 21, 3, 341-352.

Appendix A: Interview Script for Youth Consumer Purchasing Behavior

1. Demographic information
 - a. Age
 - b. Sex
 - c. Occupation
 - d. Level of education obtained
 - e. Mode of transportation
 - f. Where are you from? How long have you lived where you live now?
2. Describe your typical daily diet
 - a. Explain your present living situation. Do you live alone or with roommates? Does your home have a kitchen?
 - b. How many meals do you eat?
 - c. What types of food do you eat? Local Lanna? Thai? International?
 - d. Do you eat alone or with others? For which meal(s)?
 - e. Do you purchase or prepare the majority of your meals?
3. Do you prefer fresh food or fast-food? Why or why not?
 - a. Is fresh only what you yourself, prepare or can you also acquire fresh food at restaurants/food shops?
4. How important, if at all, is food to maintaining culture? Do you think there are other factors more important? What are they?
5. How would you compare your present day diet to when you were younger/a child?
 - a. Were your parents strict on the types of food you consume?
6. If prepare majority of meals, where do you purchase food? (i.e. supermarket, local market, etc.) Need names of shops (brand) and markets
 - a. What influences decision to purchase products in these locations over others?
 - b. Is there any particular reason as to why you prepare meals over eating out?
7. If purchase majority of meals, where do they do so? (for this question, most important to determine if from food carts, food shops, restaurants, 7-eleven, etc.)
 - a. What factors influence decision to purchase meals from these locations?
8. Do you have any food restrictions? (i.e. vegetarian, vegan, etc.)
9. When you are purchasing food, fresh or prepared, are there any labels or identifying features that you look for before consuming?
10. What is your understanding organic or “safe” foods?
 - a. Is it important that the food you consume/purchase is either of these types?
 - b. If it is, ask to elaborate why and if not, is there any reason why?
 - c. Have you ever been to or heard of the MCC “safe food” market, JJ Tops organic market? Why or why not?
11. What do you think of when you hear the word “healthy”?
 - a. How do you understand healthy? (i.e. nutrients, calories, etc.)?
 - b. Is this something that is important to you to be?

Appendix B: Semi-Structured Interview Script with Alternative Agriculture Organizations

1. What are the objectives/philosophy of your organization?
 - a. Need to determine a clear understanding of how they define their objective (i.e. safe food, organic food, sustainable agriculture, etc.)
 - b. Why is it important for you to be involved in such an organization?
2. What, if any, projects have you implemented in Chiang Mai?
 - a. Describe the project
 - i. Who are the main actors?
 - ii. What is the goal(s) of the project?
 1. Reasons behind beginning such a project?
 - iii. Who is the project designed to benefit most?
 - iv. How do you advertise/generate discussion about said projects?
 - b. In your opinion, have they been successful?
 - i. Why or why not?
3. Do you attempt to involve youth in any of your projects?
 - a. If yes, what role are they playing?
 - b. If no, why do you not choose to involve youth?
4. Where is the need for awareness for the food individuals consume being derived from?
 - a. Why is it important that consumers be aware of these choices? (i.e. safe food, chemical-free, organic, healthy, etc.)
 - b. Who, at present time, do you perceive to be most concerned with food choice?
 - i. Why do you think that is?
 - c. Do you think it important to broader awareness? What is required to ensure awareness for entire population?

Appendix C: Food Journal Instructions

Purpose: To provide a week long, itemized account of daily eating habits

Instructions: For seven days, record an itemized list of all food and drink consumed. Please indicate where food was purchased (or if prepared at home, where the food items were purchased) and cost, where applicable. Finally, when applicable provide an explanation for food and drink choices, such as cost, taste, time, etc.

Incentive: Following completion of journal, an incentive of 1400 baht will be provided.

Example:

Food/Drink Item	Place of Purchase	Cost	Comments
Egg white omelets and toast	Smoothie Blues	155	Breakfast place located conveniently beside apartment
Carrots, Cucumbers, rice cakes	Rimping Supermarket	Unknown	
Café Americano and Florentine Cookie	Mont Blanc	65	Free wifi and aircon

Appendix D: Questionnaire Survey

1. Age: ____
2. Gender: ____
3. Occupation: _____
4. How long have you lived in Chiang Mai City? _____
5. If you have not always lived in Chiang Mai City, please indicate where you have lived previously _____
6. How do you obtain an income?
 - a. Salary
 - b. Allowance
 - c. Both
7. How much income do you approximately receive each month?
8. While mode(s) of transportation do you use to travel around Chiang Mai? Select all that apply:
 - a. Walk
 - b. Bicycle
 - c. Motorbike
 - d. Car
 - e. Public transportation
 - f. Other, please specify
9. What type of residence do you currently reside in?
 - a. Dormitory
 1. On campus
 2. Off campus
 - b. Apartment
 - c. Condominium
 - d. House
 - e. Other, please specify:
10. Do you live with anyone in this residence?
 - a. Alone
 - b. Family
 - c. Friends
 - d. Other, please specify
11. What, if any, cooking facilities does your accommodation have? Please select all that apply:
 - a. None
 - b. Electric pot
 - c. Fridge
 - d. Stove
 - e. Oven
 - f. Microwave
 - g. Thai-style kitchen
 - h. Western style kitchen
12. How many meals per day do you consume? _____

13. Which of these foods do you regularly consume (select all that apply)? How frequently do you eat these foods in an average week?

Cuisine	Never	Once a week	2 to 3 times a week	Daily	Every meal
Northern Thai					
Central Thai					
Western					
Other, please specify					

14. What types of food do you eat (select all that apply)? How frequently do you eat these types of foods in an average week?

Type of food	Never	Once a week	2 to 3 times a week	Daily	Every meal
Fast food					
Fresh food					
Instant/frozen food					
Other, please specify					

15. How do you obtain these meals (select all that apply)? How frequently do you obtain food these ways in an average week?

	Never	Once a week	2 to 3 times a week	Daily	Every meal
Purchase					
Prepare for self					
Meal prepared for you by someone else (roommate/parent)					
Other, please specify					

16. Where do you purchase food/meals (select all that apply)? How frequently do you shop at these locations in an average week?

Location	Never	Once a week	2 to 3 times a week	Daily	Every meal
Food stall					
Food shop					
Restaurant					
Seven Eleven					

Supermarket					
Local market					
Department store					
Cafeteria					
Other, please specify					

17. How frequently do you snack?

- a. Never
- b. Once in a while
- c. Once a day
- d. More than once a day

18. Which types of snacks do you consume? Select all that apply

- a. Sweets
- b. Chips
- c. Soda
- d. Milk
- e. Bread
- f. Ice-cream
- g. Other, please specify

19. Where do you purchase snacks? Select all that apply

- a. Minimart
- b. Seven Eleven
- c. Department store
- d. Other, please specify

20. Please select the top three factors you consider when purchasing food:

- a. Quality
- b. Freshness
- c. Proximity
- d. Price
- e. Taste
- f. Trying to eat healthy
- g. Family preference
- h. Convenience in preparation
- i. Presentation or packaging
- j. Vegetation or other special eating habits
- k. Prescribed diet
- l. Culture, religion or ethnic background
- m. Other, please specify

21. How do you feel about your current eating habits?

- a. Completely happy

- b. Unhappy, want to change
 - c. Neutral
 - d. Do not have an opinion
22. How would you define “healthy” eating?
23. Indicate from the following list which sources you use to acquire information about healthy eating
- a. Food packaging
 - b. Government agencies
 - c. Health professionals (i.e. doctors, nutritionists, etc.)
 - d. Food industry
 - e. School
 - f. Relatives
 - g. Friends
 - h. Internet
 - i. Do not have any information on healthy eating
 - j. I am not interested in healthy eating practices
 - k. Other, please specify
24. Please define the term “organic” food
25. Indicate from the following list which sources you use to acquire information about “organic” food. Select all that apply
- a. Sustainable agricultural organizations (i.e. ISAC, NOSA, etc.)
 - b. Government agencies
 - c. School
 - d. Relatives
 - e. Friends
 - f. Internet
 - g. Do not have any information on organic foods
 - h. Other, please specify
26. Is it important for you to consume organic foods?
- a. Yes, always
 - b. Sometimes
 - c. Not really
 - d. Never
27. Who or what do you think organic food consumption benefits? Select all that apply.
- a. Individual consumer
 - b. Farmers
 - c. Environment
 - d. It does not have any benefits
 - e. I do not have any understanding of organic food
 - f. Other, please specify

28. Please define the term “safe” food
29. Indicate from the following list which sources you use to acquire information about “safe” food. Select all that apply
- a. Safe food organizations (i.e. MCC)
 - b. Government agencies
 - c. School
 - d. Relatives
 - e. Friends
 - f. Internet
 - g. Do not have any information on safe foods
 - h. Other, please specify
30. Is it important for you to consume safe foods?
- a. Yes, always
 - b. Sometimes
 - c. Not really
 - d. Never
31. Who or what do you think safe food consumption benefits? Select all that apply.
- a. Individual consumer
 - b. Farmers
 - c. Environment
 - d. It does not have any benefits
 - e. I do not have any understanding of safe food
 - f. Other, please specify