

CHAPTER 4

Conceptual Framework and Research Methodology

Chapter 4 is divided into four sections. The first section presents the conceptual and analytical framework. The second part reveals the population and sampling methods. The third part provides the questionnaire design. Finally, the last part explains the characteristics of samples.

4.1. Conceptual and analytical framework

Figure 4.1 shows the entire conceptual framework of this thesis with the following three objectives: to classify farmers according to levels of Sufficiency Economy (SE), to evaluate the levels of subjective and objective happiness of farmers, and to analyze the effect of SE and other factors on farmers' happiness.

The survey was conducted in three provinces of the upper northern region, namely, Chiang Mai, Chiang Rai, and Lampang, because these provinces had the largest number of agricultural households.

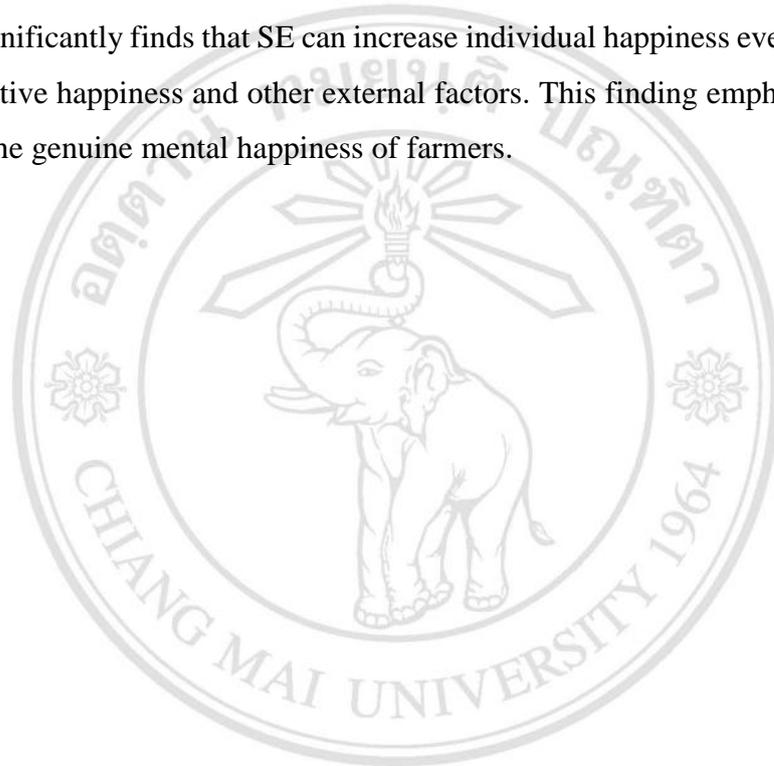
“Subjective happiness” is defined by Global Happiness as “the degree to which an individual judges the overall quality of his/her own life-as-a-whole favorably” (Rojas and Veenhoven, 2011). The survey asks the respondents to perform a self-evaluation on their overall happiness in the last 12 months no matter what creates happiness.

This study further evaluates objective happiness, which refers to the degree of requirements related to the satisfaction of basic needs and which ones people should have satisfied to lead a good life. The objective well-being composite index is constructed from the following seven dimensions: economics (except income), social status, family, health status, culture and religion, education, and freedom.

The Sufficiency Economy Intensity (SEI) index is calculated from the summation of two composites, namely, livelihood and production path of life. If SEI increases, then people follow the SE procedure more strictly.

Ordered Logistic regression is employed to study the causal relationship between SEI, including objective happiness under some control variables and subjective happiness.

This thesis significantly finds that SE can increase individual happiness even if the model controls objective happiness and other external factors. This finding emphasizes that SE can increase the genuine mental happiness of farmers.



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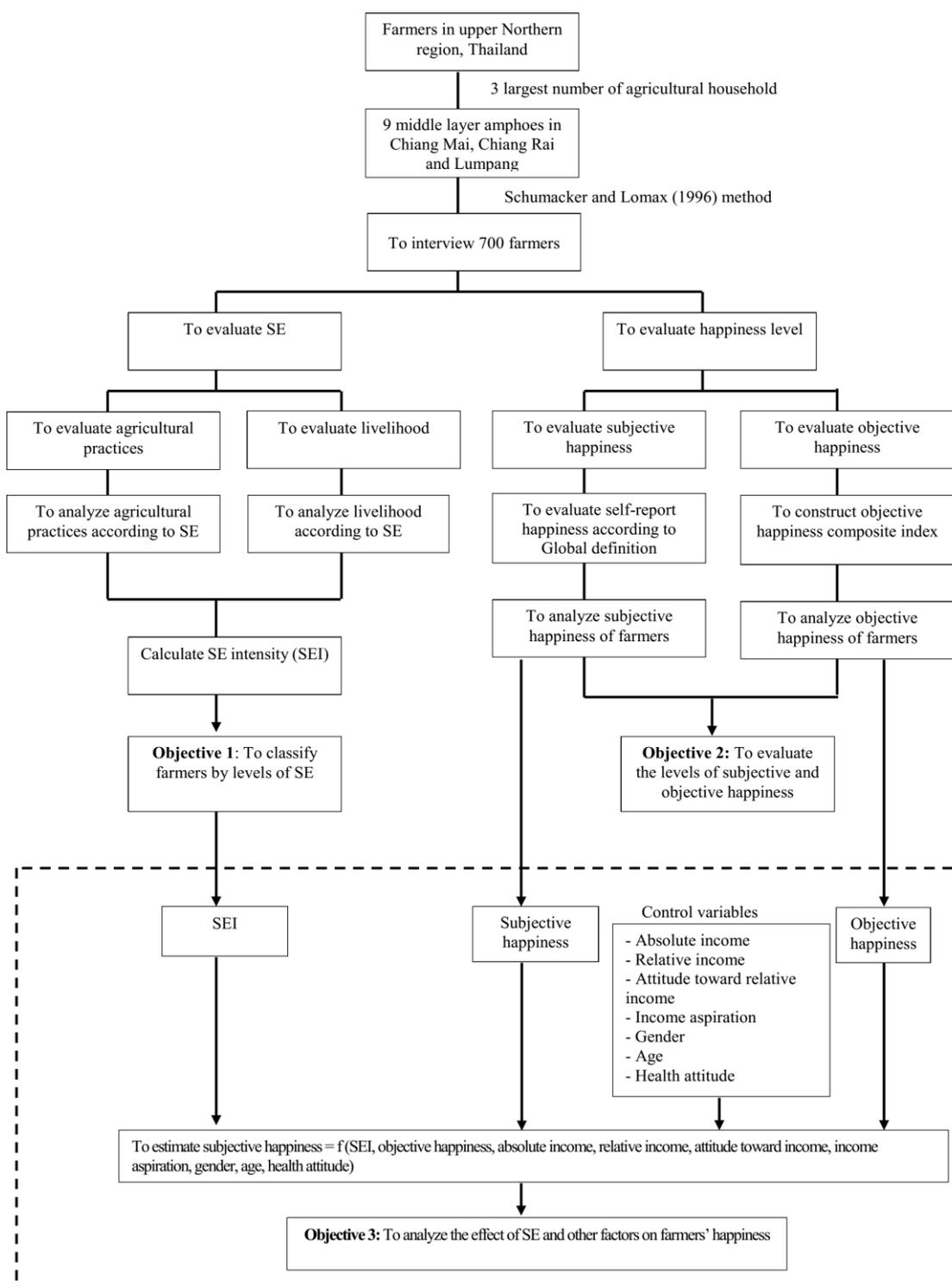


Figure 4.1 Conceptual framework

4.2 Population and sampling methods

The sampling process involved two steps. The first step entailed the selection of provinces in the upper northern region. This study selected an area in the three provinces, namely, Chiang Mai, Chiang Rai, and Lampang, because these provinces have the largest number of agricultural households in upper northern Thailand (NSO Agricultural Census, 2013). A total of 372,833 agricultural households exist in the area, which constitute 55.42% of the agricultural households in the upper northern provinces as shown in Table 4.1.

Table 4.1 Agricultural holdings households in the upper north of Thailand

Province	Census 2013	Census 2003
Chiang Mai	134,625	166,008
Chiang Rai	145,177	154,749
Lampang	93,031	100,606
Nan	77,321	77,544
Phrea	63,230	69,238
Payoa	67,526	72,873
Lamphun	58,142	65,928
Mea Hong Son	33,817	29,945
Total	672,869	736,891

Source: NSO Agricultural Census (2003, 2013)

The second step involved the use of geographical concept in selecting a representative for each province. This thesis classified amphoe in each province into three layers, namely, core, middle, and outer layers. Only farmers in amphoe under the middle layer were subsequently selected because of the mix between urban and rural areas. Thus, the study area included amphoe Sansai, amphoe Maerim, amphoe San Pa Tong in Chiang Mai Province, amphoe Phan, amphoe Mae Lao, and amphoe Mae Chan in Chiang Rai Province, and amphoe Hang Chat, amphoe Ko Kha, and amphoe Mae Tha in Lampang Province.

A total of 372,833 units constituted the household population in this survey. The sample size was calculated by using the method proposed by Schumacker and Lomax (1996), which specified the ratio between the numbers of estimated parameters and the numbers of samples. They usually suggest approximately 10–20 samples per parameter. This thesis uses Ordered Logistic regression with 4 levels, 9 parameters, and a ratio of 18. Thus, the samples should be 648.

Finally, 700 farmers from the three provinces were interviewed from March to May 2013 to reduce any error. However, data from only 671 of 700 respondents were analyzed because 29 incomplete and inconsistent answers were removed from analysis.

The empirical study of the determinants of happiness relied on the data primarily generated through face-to-face interviews; such interviews were restricted to farmer households in upper northern Thailand. Although the head of each household provided the answers, they could represent the entire household because of possible interdependencies in the well-being among household members (Powdthavee, 2005; Kingdon and Knoght, 2007).

4.3. Questionnaire design

A structured questionnaire was designed to gather quantitative and qualitative information, perceptions, attitudes, and numerical data. During the interview, each respondent was asked the same questions for the following five parts:

- Part 1 Subjective happiness level
- Part 2 Sufficiency Economy practice and livelihood
- Part 3 Income, debt, risk and gambling behavior, religion belief and practice
- Part 4 Optimism, self-esteem, political engagement, and freedom
- Part 5 Asset and health status

The questionnaire was designed based on the flow of the questions, with the respondents' convenience as the first priority (Table 4.2). Data in the right column (references column) include the related literature, which was applied to design the questionnaire.

Table 4.2 Questionnaire details

Part	Details	References
1	Subjective happiness level. Specific happiness level. Interval happiness level.	Japanese General Social Surveys (JGSS), World Values Survey (WVS)
2	Sufficiency Economy practice Agricultural practice and livelihood that accord with philosophy of Sufficiency Economy.	Wiboonpongse et al. (2009) Linhavess (2008)
3	Income, debt, risk and gambling behavior, religion belief and practice 1. Income: absolute income, relative income, income aspiration, feeling satisfied financial situation.	Oshio et al. (2010), Stutzer (2004), Ferrer-i-Carbonell's (2005), Grey et al (2008), Changrian (2010).
	2. Debt, saving and social capital	Changrian (2010), Gray and Kramanon (2007), Gray et.al. (2008).
	3. Risk and gambling behavior	The German Socio-Economic Panel Survey (SOEP, 2004), Ding, Hartog and Yuze Sun (2010).
	4. Religion belief and practice	Changrian (2010)
4	Optimism, self-esteem, political engagement and freedom.	Changrian (2010), Hussien and Heshmat (2010), Veenhoven (2003)
5	Asset and health status: land and natural resources, animals, housing utilities and sanitation, asset and health status.	Well-being in Developing Countries (WeD) survey, Thamrongwarangkul et al., (2000), Thapsuwan (2007), Personal well-being index (PWI)
	General information of respondents	

The reported level of subjective happiness was designed based on the following question: “All things considered, 12 months ago, how happy would you say you are?” Simultaneously, the respondents were shown a picture with a seven-point numerical scale (1 = “very unhappy” to 7 = “very happy”). The questionnaire further asked the maximum and minimum happiness level of each respondent to recheck the answer on the happiness level from the main question. To minimize bias from answering a long sequence of questions in the questionnaire, the happiness question was placed at the beginning of the questionnaire.

4.4. Characteristics of samples

The majority of the respondents was male at 62.9%. Primary school education dominated the group of respondents at 70.9%, and 23.4% of the remaining respondents received high school education. The age category of 40–59 was 62.9%, whereas the average age of the respondents was 55. The agricultural household size was large family; 30.6% of families comprised more than four people, and 30.6% of families comprised four people. Approximately 63.2% of the respondents had no child under 15 years old (Table 4.3).

Table 4.3 Characteristics of samples

Socio-demographic characteristics	Details	Survey number (%) ¹	Official statistic number (%) ²
Sex	Male	424 (62.90%)	N.A (71.30%)
	Female	250 (37.10%)	N.A (28.70)
Education level	Uneducated	10 (1.50%)	110,582 (8.50%)
	Primary school	478 (70.90%)	944,035 (72.80%)
	High school	158 (23.40%)	188,159 (14.50%)
	Diploma	15 (2.20%)	27,254 (2.10%)
	Higher than diploma	13 (1.90%)	24,880 (1.90%)
	Others	-	2,140 (0.20%)
Age	Less than 39 year	26 (3.90%)	-
	40-49 year	143 (21.20)	-
	50-59 year	281 (41.70)	-
	60-69 year	157 (23.30%)	-
	More than 70 year	60 (8.90%)	-
	Missing Data	7 (1.00%)	-
Household size	1 person	10 (1.50%)	-
	2 persons	79 (11.70%)	-
	3 persons	170 (25.20%)	-
	4 persons	206 (30.60%)	-
	More than 4 persons	209 (30.60%)	-
	Average	5.00	3.30
Number of children under 15 in household	0	426 (63.20%)	-
	1 person	178 (26.40%)	-
	2 persons	61 (9.10%)	-
	More than 2 persons	9 (1.30%)	-

Source 1: Survey, 2: 2013 Agricultural Census Northern Region, National Statistical Office, Thailand (2013)

The consistency between the survey data and 2013 Agricultural Census Northern Region data from the National Statistical Office proved that surveyed samples can represent the population's characteristics efficiently because the retrieved data were concordant with the Agricultural Census data. According to the census, 71.3% of the agricultural holdings in the northern region were male. The major educational attainment was primary school and high school at 72.8% and 14.5%, respectively. In terms of age group, the National Statistical Office reported that the majority of agricultural holdings in the northern region fell into the age groups between 45–54 and 55–64 or 32.7% and 28.1% of the respondents, respectively. By contrast, only 6.4% of agricultural holdings were aged under 34, with an average household size of 3.3 members.

The survey results illustrated that the agricultural household structure in the upper northern region of Thailand was male dominated, with men playing a leading role within the family and have decision making authority in all aspects, including household economy. The education level of the respondents was not high because being a farmer is an occupation that one inherited from his predecessor. Furthermore, most Thai farmers have been indigent for a long time, which explains why youth from an agricultural family gained less educational opportunities. However, this problem tends to decrease because of the educational expansion policy by the Thai government.

The age structure of surveyed farmers indicated that 73.9% of the respondents were over 50 years old, thereby suggesting that agricultural labor was getting older while the younger generation declines to work in the agricultural sector. This finding corresponds with the report of the National Statistical Office of Thailand. The report shows that most farm laborers in Thailand are older mainly because higher income is the objective of labor mobility from the agricultural sector in the rural area to the industrial and service sectors in the urban area. People no longer return after migrating and settling in the city. Moreover, some of these labor forces pursue higher education. After graduation, they receive more job and earning opportunities. Thus, they lose their motivation to return to the agricultural sector. Furthermore, a new generation of laborers views agricultural activities negatively. They perceive that farmers must work persistently hard given the

uncertainty of agricultural product prices. This negative perception may cause agricultural labor shortage in the long run.



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