CHAPTER 3

Happiness: A Concept and Literature Review

Happiness is the ultimate goal of all people. It is currently the liveliest subject in academic study (De Neve et al., 2010). Happiness has attracted the interest of psychologists, economists, sociologists, and policymakers because it generates positive outcomes in three major life domains, namely, work, personal relationship, and health (DeLeire and Kalil, 2010).

The first question that is commonly asked with regard to this subject is "What is happiness?" The second question concerns how happiness level can be measured. Lastly, attempts are made to identify the factors that influence one's happiness level. In Chapter 3, the definition of happiness, the measures of happiness level, the factors that influence happiness, the paradox of happiness, and key research on happiness in Thailand are reviewed.

Happiness has two distinct but overbridging perspectives, namely, subjective happiness and objective happiness. In this research, "happiness" represents subjective happiness, and "objective happiness" and "objective well-being" are considered to have the same meaning.

3.1 Subjective happiness

The science of happiness is the study of how humans access their welfare and has drawn considerable attention for a long time. Today, happiness has become an increasingly interesting topic despite the continuing debate concerning the truth of happiness and its absolute meaning (Dodge at al., 2012). Forgeard et al. (2011) stated that the definition of happiness remains vague and overly broad. Consequently, the universal meaning of

happiness and well-being could not be defined. Various explanations of happiness claim that this problem may be derived from differences in culture, tradition, and beliefs.

From the perspective of psychology, happiness is the combination of emotional well-being, physical health, and mental health (Grey et al., 2010). McDowel and Newell (1987) defined happiness as a person's assessment of one's condition compared with an external reference ideal or to one's aspirations. Bentham (1978) described happiness as the sum of pleasures and pains.

Edward Diener, the first scholar who explored the concept of subjective well-being (Aleksandra Mindoljević Drakulić, 2012), proposed that subjective well-being consists of three elements, namely, life satisfaction, pleasant emotions, and unpleasant emotions (Diener, 1984). In 1999, the same author and his co-workers added the fourth component of subjective well-being, namely, the pleasure gained from certain aspects of life, such as job satisfaction, marriage, leisure activities, and satisfaction with health (Schimmack, 2008).

Eid and Diener (2004) suggested that subjective well-being indicates multidimensional life assessment, including cognitive judgments of life satisfaction and affective evaluation of moods and emotions. McGillivary and Clarke (2006) asserted that subjective well-being is associated with multidimensional life evaluation that includes knowledge and understanding of life satisfaction appraisal, emotion evaluation, and mood assessment.

Ben-Shahar (2007) claimed that happiness is an overall combination of pleasure or present benefit and meaning or future benefit. Satisfaction embraces every condition, including sadness, sorrow, and suffering. By contrast, the "meaning" of life refers to one's goal, which is different for each individual. Personal meaning depends on particular emotions rather than on social norm or expectation.

Lyubomirsky (2008) affirmed that subjective well-being is the experience of joy, contentment, or positive well-being combined with a sense that individual life is good,

meaningful, and worthwhile. Rojas and Veenhoven (2011) defined the definition of happiness as the degree to which an individual favorably judges the overall quality of his/her own life as a whole. From this definition, happiness represents a positive appreciation of one's life.

On the basis of the above definitions, subjective happiness and well-being can be classified into the following three main groups (OECD, 2013)

1. General or global definitions, which do not consider about the detail of the possible component of well-being.
2. Component definitions, which emphasize components of happiness such as its constituent parts, dimensions, or domains, or identified key characteristics considered essential in evaluate well-being.
3. Focused definitions which give precedence to only one or a few components of well-being.

Following economists' perspective, early economists, such as Aristotle, Bentham, Mill, and Smith, never directly mentioned happiness. However, a scrutiny of their academic literature indicates that they referred to concepts similar to happiness, especially in parts related to utility theory

Jeremy Bentham (1789), a famous British philosopher and one of the pioneers of utility theory, proclaimed that happiness is the ultimate good. Neoclassical economists consistently use happiness and utility with the same meaning. Bentham (1789) talked of utility as human satisfaction after consuming goods and services, which is the closest indication of happiness. Hence, an individual aims to consume goods to maximize utility, thereby leading this notion to utilitarianism.

Following the utilitarianism concept, when a product is produced and consumed, this product and each production factor are interpreted to have been used to create happiness for the consumer. This concept gained wide acknowledgement with regard to economic

growth that creates greater consumption of resources because a society should increase social utility and happiness. After 1970, many economists began to study the definition of and measure happiness. Furthermore, they began to search for factors that generate happiness and suggest suitable government policies to increase civilian happiness. This study was later called the "economics of happiness."

Economics of happiness is a method of accessing human welfare by using a combination of tools and solutions presented by economists and psychologists. It is based on the extensive idea of utility rather than mainstream economics (Graham, 2005).

Most economists do not significantly value the meaning of happiness. From the economists' point of view, no difference exists among happiness, life satisfaction, and well-being. Several economists use "subjective well-being" as a synonym for happiness (McGillivray and Clarke, 2006). Happiness level, life satisfaction, and well-being are concordant and tend to change in the same direction. In other words, when individual life satisfaction is high, the level of happiness tends to increase. Moreover, the variables that can predict happiness level, well-being, and life satisfaction are identical (Grey at al., 2008).

In this study, happiness is given a global definition following Rojas and Veenhoven (2011), who defined happiness as the degree to which an individual favorably judges the overall quality of his/her own life as a whole. Furthermore, the terms "life satisfaction" and "well-being" represent the same meaning and are used interchangeably with happiness.

This study defines subjective happiness as "global happiness" because global happiness is a globally accepted general term. Academics understand and interpret in the same meaning. The findings of this thesis confirm that SE influences subjective happiness in attaining its universal meaning.

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3.2. Measuring subjective happiness level

The previous section indicates that no universal definition of subjective happiness exists. Nonetheless, Steptoe, Demakakos, and Oliveira (2012), Dolan, Layard, and Metcalfe (2011), and Kahneman and Deaton (2010) proposed that subjective well-being could be considered in three aspects, namely, evaluated well-being, experienced well-being, and Eudaimonic well-being. These three aspects are based on different theories, thereby creating disparate proper assessment methodology and field data collections. However, respondents will be directly asked their happiness level because psychologists accept this as the best technique to gather individual happiness data (Shield and Wheatley, 2005).

3.2.1. Evaluative measurement

Evaluative measuring is the original and standard happiness measurement technique. It is the major process of retrospective self-report based on memory and integration of past experiences. It can evaluate both overall happiness and happiness in some aspects of life, such as family relationships, finance situations, communes, or health situations.

Generally, the well-being data of an evaluative measurement can be obtained through a survey. This technique aims to capture the happiness level data of a person, which means that it focuses only on how happy that person is and not on what makes him/her happy. An individual has different sources of happiness. For example, someone may be happy because of their salary or job, but others may rely on family relationships. This survey-based instrument may apply closed- or open-ended questions. The questions may be a single question or multiple questions. The single-question phrases can be illustrated as follows:

The General Social Surveys by the Opinion Research Center of the United States asked respondents the following: "Taken all together, how would you say things are these days? Would you say that you are very happy, pretty happy, or not so happy?" The respondents were able to select their answers from "very happy," "pretty happy," or "not so happy."

Another sample is the World Values Survey, which asked, "Taking all things together, would you say you are very happy, quite happy, not very happy, or not at all happy?" and "All things considered, how satisfied are you with your life as a whole these days?" The respondents answered by using a 0 to 10 Likert scale, with 0 representing "dissatisfied" and 10 representing "satisfied."

The third sample is a life satisfaction survey by Eurobarometer, which asked, "On the whole, are you satisfied with your life you lead?" Respondents can answer whether they were very satisfied, fairly satisfied, not very satisfied, and not at all satisfied. Lastly, the China General Social Survey asked, "Generally speaking, how do you personally feel about your life?" A one to five scale was presented, with one as "very unhappy," two representing "unhappy," three equaled "so-so," four means "happy," and five means "very happy."

Multiple questions can be drawn from the Satisfaction with Life Scale survey by Diener, Emmous, Larsen, and Griffin (1985). The respondents had to identify their degree of satisfaction from one to seven; one represented "strongly disagree," and seven represented "strongly agree." The survey consisted of five statements with which the respondents should express their level of agreement. The first statement was "In most ways my life is close to my ideal." The second statement was "The conditions of my life are excellent." The third statement was "I am satisfied with my life." The fourth statement was "So far, I have gotten the important things I want in life." The last statement was "If I could live my life over, I would change almost nothing."

The single-question survey has advantages, including its clarity and ease of understanding, thereby requiring less survey time. Nevertheless, some researchers argued that respondents may not interpret questions in the same way, thereby insisting on multiple questions to possibly reduce this error with many questions being balanced out (Veenhoven, 2012).

Evaluative measurement has several issues. For example, people who live in a different culture interpret happiness differently. Therefore, comparing happiness among cross-

cultural respondents has to be performed with extreme caution. Furthermore, researchers should design a proper happiness scale with careful consideration. Commics (2007) suggested that five-point Likert scales may not be thorough and could not reflect genuine feelings because an individual may have a higher level of satisfaction (he stated that the satisfaction scale should be greater than a five-point scale). Alternately, too many levels of satisfaction are also unacceptable because insufficient explicit explanations are given with regard to the difference in each level of happiness; in particular, happiness should have a middle point or it should be an odd number (Commics, 2007).

Prior to the development of happiness evaluative measurement, academics doubted the accuracy of the level of happiness obtained by using this method. Furthermore, they questioned its precision, which demonstrates inner reality, validity, and reliability. The validity of this approach has been validated (Waldron, 2010). Thus, the happiness level obtained by evaluative method is convincingly reliable and accurately relates with the individual's emotion and sensation.

Considerable empirical evidence affirmed the validity and reliability of happiness data obtained by evaluative measurement. The happiness level obtained by this method correlates with various relevant variables, such as physical function and brain activity, levels of salivary cortisol, blood pressure, fibrinogen stress responses, and heart rate (Layard, 2010), frequency of genuine smiles (Ekman, Davidson, and Friesen, 1990), the length of an individual's life (Palmore, 1969), coronary heart disease (Sales and House, 1971), reports from family members, friends, and experts (Sandvik et al., 1993), and plausible causes and some plausible effects of well-being (Layard, 2010). Table 3.1 presents literature that verifies the reliability and convergent validity of survey-based measurement of subjective well-being.

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Table 3.1 Empirical evidences presenting reliability

and validity of evaluative method

Content	Sources (Examples)
Physical function, brain activity and neurological measurement	Layard, 2010 Blachflower and Oswald, 2008 Steptoe and Wardle, 2005 Smith and Berridge 2005 Urry et al. 2004
Emotion express such as genuinely smiles and frowning	Ekman, Friesen, and Davidson, 1990 Shizgal, 1999 Fernandez-Dols and Ruiz-Belcla, 1995 Sandvik et al., 1993 Smith, 2013
The length of individual's life Coronary heart disease, Suicide (both at the macro and micro level)	Palmore, 1969 Sales and House, 1971 Helliwell, 2007 Diener and Chan, 2011
Subjective well-being reports of family members, friends and experts	Sandvik et al., 1993
Correlation of different subjective well-being questions test-retest correlation	Schwarz and Strack, 1999 Wanous and Hudy, 2001 Schimmack et al., 2009
External rater validity	Wilson, 1967 Schneider and Schimmack, 2009

Apart from its validity and reliability, the advantages of evaluative measurement include time saving and economy (Díaz, Horcajo and Blanco, 2009; Javad, et al., 2008). Moreover, it does not need a specialist for field survey and data translation. Further evidence claimed that civilians who share the same language and belong to the same society are inclined to comprehend happiness level, such as very happy or happy, with the similar numerical value (Van Praag, 1991).

3.2.2 Experience measurement

Experience measurements are based on moment-to-moment flow of pain or pleasure. They are designed to measure experience well-being, hedonic well-being, and emotional well-being or experience utility. This technique evaluates a person's emotion and mood when facing different situations for a given moment or at a certain period of time, with human emotion normally fluctuating according to the combination of positive and negative feeling.

The level of subjective well-being obtained from experience method represents human's real-time emotion or emotion shortly after an event occurred. Interestingly, the processes in precisely collecting the data can avoid bias in the acquired data because of immediate recall. However, this method is suitable for small sample size and has a high cost.

The significant experience measures are ecological momentary assessment (EMA) (Stone et al., 1998), the day reconstruction method (DRM) (Kahneman et al., 2004), and single-day measurement. The next part describes essential details of experience measurement starting from a short period to a longer period of time.

1. Laboratory

A laboratory experiment is formulated to determine an emotion that occurs in a very short period or a point in time. It operates under a well-controlled environment through an experiment builder and can separate real-time feelings from distinctly experienced

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feelings. For example, researchers will arrange an experiment to study how respondents feel while tackling a certain situation. They may ask respondents to watch some video clips, and respondents will be asked about their feelings immediately after watching the clips. Thus, the pain or pleasure from this event is measured in real time. The emotion or level of subjective well-being is referred to as experience utility.

The crucial advantage of determining human happiness in the laboratory is that the researcher can eradicate or control external variables properly. The result is a direct effect of this approach. However, some reliability issues occur when applying the result or explaining human behavior in society.

2. Ecological Momentary Assessment (EMA)

EMA tracks emotions associated with experiences that occur in everyday life (Stone and Mackie, 2013). In this method, respondents report their real-time emotion (Csikszentmihalyi, 1990; Stone and Shiffman, 1994) at randomly chosen periods under a naturalistic environment. The absence of environmental control ensures the validity of the data and avoids retrospective biases and context effects caused by an artificial environment (e.g., occurring using the laboratory method).

For example, during the experiment, respondents must always have electronic devices with them, such as their mobile phone, laptop, or iPad. These devices remind them to answer the questions on time. They record data using these gadgets at different times of the day (many times in a day, with the experiment possibly carrying on for many days continuously). Therefore, answers are given promptly because these devices contain an answer menu for a set of questions, such as "What are you doing?", "Who is with you at the moment?", "How do you feel? (angry, happy, tired, etc.)." The experiment could take from one day up to many days.

The distinguishing strengths of this method, which determine happiness or feeling in real time, is accurately considered experience utility. Furthermore, this method can categorize

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details of daily routine in terms of how different each activity influences the respondent's emotion. Moreover, it abstains from aggregating respondents' experienced problem. Through EMA, the researcher can calculate average levels of variable of interest. Nevertheless, EMA possesses the following weaknesses (Smyth and Stone, 2003; Stone and Mackie, 2013):

1. Some researchers found that missing data are commonly present in the EMA process.
2. The technique is expensive and suitable for a limited number of respondents only.
3. EMA result may face validity issues when it is scaled up to explain behavior in general.
4. EMA is difficult to apply in a national survey.
5. Respondents must be trained to use electronic devices before participating, and the process is a considerable burden to the respondent.
6. The process may overlook significant events that may be important to the respondent.

3. Day Reconstruction Method (DRM)

DRM is a sort of experience well-being measurement technique which developed by Kahnaman et al. (2004). It is the integration of experimental sampling and time diaries (Kahnaman et al., 2004). DRM combines the strengths features of time-budget measurement (Juster and Stafford, 1985; Robinson and Godbye, 1997), experience sampling (Stone, Shiffman and DeVries, 1999) and employs techniques based on cognitive science.

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In the first step, respondents recall their memories by recording every occurrence from the previous day and separates them into episodes. Then, they will be interviewed about a particular fact in each episode, such as when the event happened and ended, what they were doing at that moment, where they were, and who they were with. The fact may be chosen from the main activity of the episodes. Respondents not only illuminate details of activities, but they also have to identify every positive and negative emotion that occurs during activities as well, such as happy, frustrated, angry, and anxious. Then, respondents have to rate their level of feeling in seven scales from zero to six, with zero meaning "not at all" and six indicating "very much." Data from DRM will be calculated for the "net affect".

DRM difference from self-report of happiness is stable, whereas assessing emotion in a certain period of time fluctuates. When considering factors that affect happiness by controlling other factors, life circumstance demonstrates a higher influence on self-reported happiness than happiness from DRM (Helliwell, 2011). Today, the DRM concept is deployed in designing questionnaires. The question arrangement utilizes the yesterday principle called "global-yesterday question."

3.2.3. Eudaimonic Measurement

The Eudaimonic measurement is designed to evaluate happiness or well-being in terms of people's perception of meaningfulness (or pointlessness), sense of purpose, and value of life. For example, the annual population survey of the Office for National Statistics of the UK created questions by using the Eudaimonic measurement. The following question was asked: "Overall, to what extent do you feel the things you do in your life are worthwhile in this case?" A zero to ten scale was given for the answers, with zero suggesting that respondents feel that things they do in their life are not at all worthwhile and ten meaning that they feel that what they do is completely worthwhile (OECD, 2013).

A commonly used crucial happiness measurement that implements Eudaimonic measurement is the Ryff multidimensional scales of well-being (Ryff and Keyes, 1995). According to the Ryff and Keyes concept (1995), psychological well-being measurement

is separate from subjective well-being (Vanhoutte and Nazroo, 2014). This psychological well-being measurement consists of the six dimensions of wellness, namely, autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. The questionnaire included 84 questions (long form) and 54 questions (medium form). Today, Eudaimonic measurement is not very popular because the fundamental concept of worthwhileness or purpose is too complicated to understand. Developing the theory and the Eudaimonic well-being assessment requires time (National Research Council, 2013)

This study analyzed subjective happiness by using evaluative method or self-report, with subjective happiness used as a proxy of individual welfare. This method has consistent inner reality, validity, and reliability. Self-reported happiness is well correlated with bodily function (Layard, 2010) and life and emotional satisfaction (Kahneman and Krueger, 2006). Thus, a self-reporting measurement of happiness is not only credible and acceptable, but also comfortable and easily deployable (Diaz et al., 2009; Liaghatdar et al., 2008).

3.3 Hypothetical factors that determine subjective happiness

Factors that affect happiness at both the individual and the national levels has long been a core of empirical research. Numerous recent studies aimed to determine the factors that influence happiness. Most of these studies mentioned subjective happiness. Self-report is commonly used to evaluate happiness level. The factors that affect happiness are scrutinized in this section.

3.3.1 Income

Studies on the relationship between income and happiness have received significant attention because income is the first important factor that people would think of and assume that it affects happiness level according to utility theory. Utility theory mentions the relationship between utility and consumption, and describes a human as an economic

creature that aims to achieve his/her maximum utility. Utility rises when consumption rises. Furthermore, income is an important factor that determines consumption and allows individuals to increase their consumption, and consumption escalates utility.

Accordingly, income is believed to have a positive relationship with happiness. Many papers proved that poverty is a state or condition of unhappiness (Ahuvia and Freedman, 1998; Cummins, 2000; Veehoven, 1991). Ordinarily, wealthy people have greater well-being than the poor (Clark et al., 2006). Income and happiness have a statistically significant positive relationship (Frey, 2008). Nevertheless, an examination of their long-term relationship showed that the happiness of people who live in an industrialized or a developed country does not increase with the advancement of country development (Blanchflower and Oswald, 2004; Easterlin, 1995, 2001). This finding was pointed out by Easterlin (1974), the first modern economist who studied happiness from an economics standpoint.

Easterlin (1974) observed USA after World War II and found that average per capita income increased, but subjective well-being remained constant. This circumstance conflicts with the economic assumption, which stated that higher wealth means higher happiness. This finding is called the "paradox of happiness" or "the Easterlin Paradox." Scholars initially did not pay any attention to this concept because the accuracy of self-reported measurement remained under question. When the accuracy of the subjective well-being index was verified, the Easterlin Paradox began to garner academic attention. Details of the Easterlin Paradox will be mentioned in a later section.

3.3.2 Age

The relationship between age and happiness remains a vague issue for which modern economists and psychologists have not yet determined a common conclusion. Myers (2000), who addressed the topic from the perspective of positive psychology, stated that even though many people believe that humans experience difficulty in confronting unhappiness, such as adolescence stress, mid-life crisis, or health issues among elderly people, data from a survey in industrial countries indicated that humans have not even

reached maximum happiness or satisfaction once in their lifetimes. Kahneman, Diener, and Schwarz implied that well-being increases with age (Argyle, 1999, 2001). A literature review by Frey and Stutzer (2002) found various conclusions with regard to elderly happiness. Some studies claimed that old people are unhappy, whereas others concluded that the elderly are happier than any people of other ages. Other studies found that children and old people are happier than middle-aged people.

A relationship pattern of age and happiness existed in a U-shaped correlation according to the life cycle of happiness. This finding suggests that humans possess minimum happiness in their middle-aged years (30 to 40 years old depending on each paper). This hypothesis is supported by Deaton and Paxson (1994), Oswald (1997), Frey and Stutzer (2000), Easterin (2001), Gerdtham and Johannesson (2001), Blanchflower and Oswald (2004), and Powdthavee (2007).

Several researchers do not agree with the life cycle of happiness. They argued that a study that uses happiness data at a point in time then compares the data among different age groups (cross-sectional data analysis), may be inaccurate because people of different ages have divergent birth cohorts even though some factors (such as income or status) are under control, thereby making comparisons impossible. These researchers proposed that age–happiness analysis should be a longitudinal study (Easterlin, 2006). A well-known longitudinal study is a research from Costa et al. (1987), who found that adults had a relatively stable happiness level; this finding is consistent with that of Easterlin and Schaeffer (1999). Alternately, Mroczek and Spiro (2005) followed 1,900 male respondents for 22 years. They found that happiness levels had an inverted-U shaped graph, and the maximum happiness was at 65 years old.

3.3.3 Marriage and family relationship

Marriage improves human physical and mental health (Coombs, 1991). As defined in psychology, marriage is an action that responds to human desire to establish an interpersonal relationship, which is a fundamental human motivation (Baumeister and Leary, 1995). Humans expect expression in each aspect from his/her lover, such as love,

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gratitude, recognition, stability, and security, and material rewards. This concept is called "the protection perspective of marriage." Moreover, marriage and establishing a family are a social support (Mastekaasa, 1993) that affect happiness positively. Following the economic perspective, marriage creates stability in life and benefits from economies of scale and specialization within the family (Becker, 1981).

However, some studies discovered that marriage influences happiness for a short period only or has no effect at all. Clark et al. (2003) observed that happiness increased only one year after marriage; afterwards, the happiness level reverted to its original level before marriage. This result is an effect of the hedonic treadmill, which means that a circumstance affects happiness only for a short period. Furthermore, marriage status may not be a proper proxy for a relationship (Pugno, 2005). Various studies that use econometrics, such as Blanchflower and Oswald (2004), Frey and Stutzer (2002), Helliwell (2003), and Di Tella et al. (2004), illustrated that a single status influences well-being.

Family relationship is a significant element that affects happiness level. Family is a crucial component for social institutions and social capital constitution. Empirical evidence of the positive relationship between family relationship and happiness has been presented (Heliwell, 2003; Easterin, 2001; Diener et al., 2000; Stack and Eshleman, 1998; Coombs, 1991; Myers, 1999; Frey and Strtzer, 2004).

3.3.4. Education

Numerous studies have examined the relationship between education and happiness (Halpin, 2003; Vanpraag and Ferrer-i-Carbonell, 2004; Layard, 2005; Miller and Tcha, 2005; Stefano, 2006; Ben-Shahar, 2007; Bruni and Porta, 2007; Michalos, 2007; and Powthavee, 2007). However, these studies obtained varying results. Some papers found that people with higher education were happier than people with lower education (Clark et al., 2001; Frey and Stutzer, 2000; Gerdtham and Johannesson, 1997). People with higher education have more access to better opportunities, high income, high productivity, and better social acceptance. All these factors affect human happiness

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(Witter et al., 1984). Some papers found a negative relationship between education and happiness because higher education makes people more ambitious. People may experience disappointment or sorrow when they have ambitious goals that they are unable to achieve (Clark and Oswald, 1994; Diener et al., 1999).

3.3.5 Religion

Religion is an important factor that affects personal happiness. Frey and Stutzer (2002) stated that religion can attach personal value, guide people's lives, and bring happiness to human beings. Many studies proved that people who take part in religious activities are comparatively happier (Ferriss, 2002; Nettle, 2005; Brooks, 2008) and live longer. People who follow religious principles and doctrines have positive attitudes toward life. Moreover, being religious benefits their health (Hoggard, 2005). However, this aspect has to be considered separately as "religious belief" and "religious practice" because they influence happiness in different ways (Alivi, 2007).

Some studies found a U-shaped relationship between personal well-being and religiosity. Opfinger (2010) discovered that both higher religiosity and lower religiosity are associated with a high happiness level because of the network effect, which means that religious people are happier only if they live in a religious society. However, some studies did not find any relationship between religiosity and happiness. For example, Snoep (2007) used the World Values Survey data of the USA, the Netherlands, and Denmark. Religiosity affected only respondents in the USA, but no statistically significant result was found in the Netherlands and Denmark. In Thailand, Pitaktepsombat, Pongchaisri, and Changrian (2010) found that attentiveness in Dhamma was the third most important factor that caused rural Thais' happiness, while Detchatsiriporn (2006) found that religion was not a significant factor that affected the happiness level of Thai hospital officials.

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3.3.6 Health

Health is a core determinant of happiness because happiness occurs in the human mind. It is a consequence of being strong and healthy without any illness (Veenhoven, 1996; Gerdtham and Johannesson, 2001). Davis (2005) determined that sickness is a critical factor that creates sorrow in a household. The health domain is a crucial domain that affects happiness directly. Michalos et al. (2007) collected data from 875 respondents in British Columbia and found that health satisfaction is the domain that most strongly influences the subjective well-being scores of the respondents. Other studies that confirmed the relationship between happiness and health include those of Gerdtham and Johannesson (2001), Blanchflower and Oswald (2008), Graham (2008), and Deaton (2008).

In Thailand, Jongudomkarn and Camfiled (2006) examined rural southern and northeastern Thailand through in-depth interviews conducted in October and December 2004. They found that inconvenience and cost of illness are significant elements that cause unhappiness. Sasing (2007) conducted a field survey in Kanchanaburi Province and found that health problems within the previous month reduced the happiness of the afflicted people in comparison with healthy people. Illnesses affected the sense of economic security of people. Gray et al. (2008) studied survey data from Chai Nat and Kanchanaburi Provinces and found statistically significant results that prove that respondents who have never been seriously ill were happier than those who were sick.

3.3.7 Freedom

Veenhoven (2006) defined freedom as the possibility to choose, and freedom was measured on the basis of the absence of restrictions in economic, political, and personal life. Every human seeks freedom or liberty (Layard, 2005). An individual is happier if he/she has more freedom and less restriction in making decisions (Verme, 2009).

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Two types of freedom are considered by scholars, namely, political freedom and economic freedom. Political freedom refers to the ability of people to present and share their political opinions freely. They can vote, participate in political activities and demonstrations, and become political members. However, they have to follow the law without violating other people's rights.

Most studies in this area showed that political freedom is an attribute that makes people happier (Haller and Hadler 2004, Inglehart et al., 2008, and Dorn et al., 2007). Abdallal et al. (2008) used the data of 178 countries from the World Values Survey, Pew Global Attitudes Survey, Latino-Barometer, and Afro-Barometer, and concluded that political factor is a crucial factor that affects subjective well-being. Frey and Stutzer (2000) found that freedom in political participation affects human happiness regardless of the actual outcome. Frey and Stutzer (2002) studied data of Switzerland and confirmed that the probability level of political participation in a direct democracy is a significant factor that affects happiness and is more important than demographic and economic factors.

Economic freedom is defined as follows: "Individuals have economic freedom when property they acquire without the use of force, fraud, or theft is protected from physical invasions by others and they are free to use, exchange, or give their property as long as their actions do not violate the identical rights of others" (Gwartney et al., 1996). Economic freedom has a different meaning from political freedom. Political freedom emphasizes that political rights and democracy are more important than markets. In some countries, both types of freedoms do not associate in the same direction. For example, Singapore or China have economic freedom yet limited political freedom.

Gehring (2012) collected panel data from 86 countries during 1990–2005 and found that economic freedom influenced the increase in happiness. The factors that associate positive relationship with happiness include legal security and property rights, access to money, and freedom from excessive regulation.

A recent study by Bavetta et al. (2014) used World Values Survey data and Freedom House Country Scores during 1981–2008 and showed that both political and autonomy freedom have a statistically significant positive relationship with happiness. Veenhoven (2002, 2003) and Dreher and Fischer (2010) discovered that freedom has a positive relationship with happiness only in rich countries but not in poor countries.

3.3.8. Social capital

Social capital is the relationship among a group of people or society. Numerous definitions of social capital exist, but all of them are geared toward the same direction. For example, Putnam (2000) stated that social capital means the relationship between individuals as a social network and social norm that is characterized by sharing, trust, generosity toward others, and good relationships with neighbors. OECD (2007) defined social capital as "networks together with shared norm, values and understandings that facilitate co-operation within or among groups." World Bank defined social capital as "the institutions, relationships and norms that shape the quality and quantity of a society's social interaction" (Jean-Vasile et al., 2013).

Social capital sounds abstract and difficult to evaluate, but many studies have attempted to find some proxies that present the level or intensity of social capital. These proxies include the intensity of social network, frequency of connection with neighbors and relatives, level of good relation with neighbors, norms of reciprocity, level of social unity and strength of society, and trustworthiness among neighbors and each individual in society.

Ingersoll-Dayton et al. (2004) said that happiness comes from harmony among individuals, including unity of family members, friends, and neighbors. Baumeister and Leary (1995) proposed that the desire to establish an interpersonal relationship is a fundamental motivation of humanity. The feeling of belonging in a society makes humans feel safe and happy. A high or low level of this feeling depends on the quality of the relationship with neighbors and other people in the social network. Moreover, from the perspective of political science, Lane (2000) proposed that happiness in a developed

country comes from friendship and good family life. In his opinion, economic growth negatively affected the institution of family and community integration, as well as caused individuals to be less trusting. Furthermore, he expressed his concern with regard to increasing the importance of friendships, even if it may reduce income slightly.

Winkelman (2008) conducted a case study in Germany and found a positive relationship between belonging in a society and social participation with happiness. He found that high frequency of social participation in cultural activities, religious activities, political and social volunteering, and personal activities, such as visiting friends, relatives, or neighbors, improved the happiness level of German people. Helliwell and Putnam (2004) found that the subjective well-being level of Canadian people increased when social participation increased. Borooah (2006) discovered that Northern Ireland people who live in high social capital areas are happier than those who live in the lower social capital areas. In Thailand, Pholphirul and Rukumnuaykit (2007) found that social capital affected the increment of happiness, especially trust, life, and property security. Grey et al. (2007, 2008) found that people who live in a community with a high social capital are happier than those who do not.

3.4 Easterlin paradox

The Easterlin Paradox describes the relationship between income and subjective happiness as "considering relationship of income and happiness at a point in time, not only national studies but also international studies," thereby proving that income and happiness have a positive relationship. In sum, rich people are happier than poor people, and wealthier countries are happier than poorer countries. However, in many countries, when long-term relationship was taken into consideration (more or equal to 10 years), happiness did not increase as income increased (Easterlin et al., 2010). In other words, at a certain period of time, rich people are likely to be happier than poor people. However, the ratio of people who reported that they are happy did not increase as the average income of society increased over time. The three major causes of the Easterlin Paradox are explained below.

1. Social comparison

This idea is widely supported from both psychological (e.g., Diener and Biswas-Diener, 2000) and economic perspectives (e.g., Esterlin, 1974, 1995). Easterlin (1974, 1995, 2001) proposed that the aspect of human comparative process based on the social psychology concept is a significant element that causes the Easterlin Paradox. He referred to the relative utility theory of James Duesenberry (1949). This relative utility theory claimed that people frequently compare themselves with a reference group. They focus not only on their own absolute consumption, but also on how much they consume in relation to their benchmark. Individuals compare themselves with others to understand and realize their own status (Festinger, 1954).

The comparison concept suggests that happiness differs from the neoclassical economic concept, which believes that consumers' utility is independent and depends on their own absolute income while following the comparison concept. Utility depends on others' income and the gap between their income and the income of the reference group.

Veenhoven (1991) further explained that happiness does not increase along with income because the marginal utility of income, which is higher than the income that meets fundamental needs, diminishes the marginal utility of money. Ferrer-i-Carbinell (2005) also found that the income of the reference group is as important as one's own income. A person is happier when his/her income is higher than that of the reference group.

Richard Layard (2003) claimed that "human pays attention to comparative income, he or she had never let themselves inferior than the others, in the other words, they try to be superior to the others." "Keeping up with the Joneses" is an expression that commonly describes human consumption behavior. Humans attempt to earn a high income or have considerable expenses so they can retain their reputation with their neighbors or colleagues. An individual's reference group commonly comprises persons who are close to him/her, such as parents, siblings, colleagues, and people who live in the same community. The importance of the reference group may be altered by culture and norm.

Human comparative behavior is complex and multilevel, and is related to conspicuous consumption. McBride (2001) stated that the first type of comparison is external comparison or comparison with a close relative or friend, or colleagues of the same age, gender, or occupation. The second comparison is internal comparison, in which an individual compares his current self with his previous self. McBride (2001) discovered that income comparison has a greater effect on high-income people than on low-income people. However, reference group selection is always diverse over time when life situation changes.

A comparison between behavior and decision making does not only bring disadvantages. The desire to improve and be better than others are an excellent motivation for individuals to work harder. However, Powdthavee (2007) argued that comparative behavior drives humans to work harder and pay less attention to their family, consequently resulting in a zero-sum game, which means that the number of people who gain benefits is equal to the number of people who lost.

As mentioned above, interpersonal comparison influences human happiness. When income increases to a certain level, people will compare themselves with others. A person is happier when he/she perceives that he/she gains more than the others. If they earn less than other people, then their net happiness will decline. On a macro level, income increment for everybody in a country does not boost happiness because comparative income does not change.

Whenever humans are placed in a comparative situation, they work hard for income and wealth. Each people and country is rich, but this condition fails to make them happier because other people and countries have achieved the same things. This issue has been studied by Duesenberry (1949), Easterlin (1974, 1995), Scitovsky (1976), Layard (2005), Clark et al. (2008), Fafchamps and Shilpi (2006), Kingdon and Knight (2007), Brown et al. (2008), Rojas (2008), and Guillen-Royo (2011).

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2. Aspiration

Changes in human expectation affect income satisfaction whenever the gap between expected income and real income is reduced. The concept of aspiration is related to motivation theory, which states that human motivation depends on awareness of surroundings. Humans tends to set higher expectations when they are more likely to succeed. Conversely, they reduce their aspiration when they fail. In his book entitled The Joyless Economy, Tibor Scitovsky claimed that humans are happy as long as they consume new products. However, after a certain period, the product becomes old; happiness becomes only a convenience. Humans will then search for new products to obtain happiness. This cycle is called the hedonic treadmill (Brickman and Campbell, 1971).

Hedonic treadmill explains the behavior in which a person tends to set a higher consumption expectation when he/she earns more. Happiness is defined by the gap between income and demand. In the long term, this gap is relatively constant, thereby making the hedonic treadmill a major cause of the Easterlin Paradox.

Van Praag and Kapteyn (1973) found that the expectation of income increase has the same ratio as higher income and is sometimes called "preference drift." Inglehart and Rabier (1986) studied adaptive behavior by using the Eurobarometer data of Western countries during 1973–1983. They found that life satisfaction and happiness have no relation with income at a point in time, but a positive relationship exists with financial status for the past 12 months. Clark (1999), Tella et al. (2003), and Van Praag and Ferrer-i-Carbonell (2004) obtained similar results. Clark (1999) used the Waves of British Household Panel data to study the relationship between laborers' satisfaction with their current and past incomes. De Tella et al. (2003) applied panel data of 12 countries in OECD to estimate income lag effects. Van Praag and Ferrer-i-Carbonell (2004) studied adaptation to income, which affects happiness, on the basis of data from Germany.

Easterlin (2001) stated that people's expectation level and changes of expectation vary according to their life cycle. Brickman and Campbell (1971) discovered that not only

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expected earnings increase when actual income increases, but income aspiration also increases and causes the hedonic treadmill. Easterlin (1974, 2001) mentioned that income aspiration tends to rise in the same proportion as income increment for a lifetime. This observation suggests that happiness and income aspiration have an inverse relationship.

In summary, human aspiration causes the hedonic treadmill, which means that humans tend to raise their expectation when their income increases. People will be happier when the gap between expected income and actual income is reduced. However, in the long run, this gap remains constant when income increases. Thus, the happiness level will no longer increase.

3. Adaptation

The judgment of whether a situation is good or bad depends on personal experience and happiness. Sadness can fluctuate depending on the situation, such as illness or loss. Some situations stimulate happiness. When humans experience certain stimulants for a period of time, they may become physically and mentally immune to them. Over time, their happiness will revert to its previous level.

With regard to income, if humans obtain more income, then they will be happier. When they have lower income, then their happiness will decrease. People tend to experience hedonic adaptation in every circumstance. When their income increases, their happiness will rise temporarily for a period of time. Then, they will adapt to the new level of income, and their happiness level will return to the initial level.

Brickman et al. (1978) conducted psychological case study that is a common reference to describe hedonic adaptation. They studied respondents who won lotto prizes with a value that ranges from 5,000 to 1,000,000 US dollars; 7 out of 22 respondents won a million dollars. After one to two years, the previous happiness level of the respondents who won the prize and that of the respondents who did not win (controlled group) were not significantly different.

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Oswald and Powdthavee (2005) found that average life satisfaction level decreased after a moderate accident but reverted to the initial level automatically after two years. However, when a severe disability occurred, satisfaction level takes a while to return to the initial level. These results proved that lotto winners are not happier than ordinary people. Furthermore, people who have experienced accidents are equally not unhappier than people in general. Over time, people adapt and become familiar with the happiness from winning and the sorrow from the accident.

Esterlin (2004) claimed that humans have complete adaptation to income and incomplete adaptation to a situation, such as marriage. Diener and Seligman (2004), Layard (2005), Oswald and Powdthavee (2005), and Riis et al. (2005) supported the concept of adaptation behavior.

The concept of human adaptation suggests that a person's mood or behavior will revert to its normal level over time. For example, income is a stimulator. When people have higher income, happiness rises temporarily and will return to the initial level over time. Therefore, in the long term, even though their income rises, people will adapt to their new situation. Ultimately, happiness remains constant.

3.5 The related studies in Thailand

At present, few studies on happiness have been conducted in Thailand. Pholphirul and Rukumnuaykit (2007) studied the well-being of urban people in comparison with rural people by using the happiness index data from the Development of Thai Mental Indicator by Mongkol et al. (2003). These data used population data from every region of Thailand. Findings indicate that urban people have the same physical well-being as rural people, but lower mental health. Urban people are less satisfied with their life than rural people. Men and women are equally happy and satisfied with their lives. Furthermore, age does not affect the happiness of working aged people. Marriage status is the variable that affects well-being significantly.

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Changrian (2010) recently compared the happiness of rural and urban people. He utilized household samples from all over the country, except three southern border provinces. He found no difference in the happiness of rural and urban people. He also found that the happiness of rural people is related to giving, whereas that of urban people is related to job success. However, both groups prioritize the value of work over income.

Yiengprungsawan et al. (2011) investigated the relationship between mental health, happiness, and sociodemographic variables by collecting data from 60,569 adult students throughout the country. They concluded that mental health and social sustenance affect happiness and life satisfaction. Furthermore, happiness level had little relation to age and gender, but had an extremely high relationship with status, earnings, and career.

Grey et al. (2008) examined the factors that affect the happiness of respondents in Chai Nat and Kanchanaburi Provinces. Even though these two provinces are different in terms of geographics, average happiness is not significantly different. The relationship between income and happiness remains unclear, but the factor that affects happiness is obviously "feeling that they are not poor compared with their neighbors." Alternately, Thongthai and Grey (2008) found that gambling makes people happier, and happiness comes from being debt-free.

Pholphirul and Rukumnuaykit (2007) analyzed happiness on the basis of the social capital of respondents in Kanchanaburi Province. They found that every class of social capital, including personal level, family level, and community level, influences happiness significantly. Moreover, family members' happiness affects individual happiness positively. When family members have a good relationship, the happiness of the household increases.

Only a few studies focus on the happiness of people who adopted SE. Poohongthong and Uwanno (2009) measured the subjective well-being of 400 agriculturists in Khon Kaen Province who complied with SE. They applied Pearson correlation and found that SE agriculturists are happier than non-SE agriculturists. They then applied multiple regression to investigate the relationship between four variables, namely, living according

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to SE, size of agricultural area, income and number of family members, and happiness. They found that living in accordance with SE had a statistically significant correlation with happiness.

Linhavess (2008) measured the happiness of rice farmers in Phanatnikhom District, Chonburi Province, by selecting respondents who live in 12 SE villages in six sub-districts. The interesting aspect of this study is its use of a psychological notion on human economic behavior, such as aspiration level theory, social comparison theory, and adaptation theory. These theories were applied to find a related suitable proxy, such as using dummy variables to compare their own current income with other people's income. The result confirmed that, in this study area, SE activities make people happier. Crucial studies in Thailand are presented in Table 3.2.

Table 3.2 Conclusion of crucial studies in Thailand

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Pholphirul and Rukumnuaykit (2007)	study relationship between socioeconomics factors and physical happiness, mental happiness of Thai people in urban and rural area.	employ secondary data of 2,402 observations from "The Development and Testing of a New Thai Mental Health Indicator (TMHI)" by Mongkol et al. (2003)	- 7-self- report scales of happiness level which are deepest sorrow, very sorrow, sorrow, neutral, happy, very happy and extremely happiness - OLS, Linear probability model, Probit model	- average happiness level of urban and rural people are not different. - physical happiness of urban and rural people are not different but mental happiness of urban people are lesser than rural people. - age and marriage status are the factors that affect happiness level for both urban and rural people. - income has no effect to happiness level.

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Nitnitiphrut (2007)	study factors that influence happiness	400 respondents who are over 15 years old and lived in Bangkok	- 5-self- report scales of happiness level from 1 = completely dissatisfied to 5 = completely satisfied - Ordered Probit Model.	- factors that influence happiness are age, immunity (saving, life insurance), income and education level.
Thapsuwan (2007)	- explore appropriate components and index of the objective well-being - compare the difference between sexes, ages, and agricultural group and non-agricultural group - examine the relationship between the subjective well-being and objective well-being.	employ secondary data of 1,838 observations in Chai Nat Province from the "Well-being Indicators: The Study in Western Thailand" project by the Institute for Population and Social Research, Mahidol University (2005).	- 11 self- report scales of well-being. - Pearson correlation	- there are a significant unidirectional relationship between subjective and objective well-being (objective assessment can be replaced with subjective assessment. - men have higher level of subjective and objective well-being than women - age is negative relationship with subjective and objective well-being. - agriculturalists has higher level of subjective and objective well-being than non- agriculturalists

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Sasing et al., (2007)	- measure well-being of people in Kanchanaburi provinces. - study the relationship between debt obligation and happiness.	employ secondary data of 3,289 observations in Kanchanaburi provinces from the "Well-being Indicators: The Study in Western Thailand" project by the Institute for Population and Social Research, Mahidol University (2005).	- 11 self- report scales of happiness level. - Multiple Regression	- debt obligation has negative effect on the subjective well-being - the source of fund (formal or informal) does not have statistically significant effects on the happiness level. - heavy debt burden has a statistically significant negative effect on happiness level - other factors found to have statistically significant effects on the happiness level compose of education level, income, the adequacy of earning, health status, home ownership, type of dwelling, dependency ratio, and social capital in the community.

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Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Grey et al., (2008)	study the relationship between happiness and internal factors and external factors.	respondents who are over 20 years old and lived in Chai Nat and Kanchanaburi provinces.	- 11- scales of happiness level focus group - Multiple Regression	- applied "a feeling of sufficiency" variable in the study. - internal factors are more important than external factors. - respondents who feel thay are not poor are happier than people who feel they poorer than others. - happiness level of Chai Nat people is 5.8 and happiness level of Kanchanaburi people is 5.7
Thongthai and Grey (2011)	- study the relationship between gambling and happiness - study the relationship between debt and happiness	employ secondary data of 5,357 observations from the "Well-being Indicators: The Study in Western Thailand" project by the Institute for Population and Social Research, Mahidol University (2005).	- 11 self- report scales of happiness level after that classify happiness into 2 levels which are high happiness and low happiness. - Binomial Logit model	- it cannot be conclude that gambling cause suffering or not but it can be concluded that freedom form debt creates happiness.

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Linhavess (2008)	measure happiness level and analyze factors affecting happiness level of rice farmer living in the Sufficiency Economy village, Panat Nikhom District, Chon Busi Province.	335 rice farmer living in the Sufficiency Economy village, Panat Nikhom District, Chon Busi Province (2007)	- apply 3 methods to measure happiness level - Ordered Logit model	- the model with happiness measured by Thai Happiness Indicators is best fit in this study. - factors that have positive relationship with happiness are living in village where Sufficiency Economy related activities, conducting Sufficiency Economy related activities and income from other agricultural products other than rice. - factors that have positive relationship with happiness are number of years of formal education and non-increasing level of present income compared with income in the past.

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Suppadit and Uwanno (2008)	study the effects of social comparison and income on subjective well-being	436 respondents who are were government officials, state enterprise officials, and private employees in Bangkok	- questionnaires consisted of upward and downward social comparison scales and happiness and well-being scales - Two-way Anova	- downward social comparison people has higher average subjective well-being level than upward social comparison people significantly. - high income people has higher average subjective well-being level than low income people significantly - high income people with downward social comparison has a higher average subjective well-being level than high income people with upward social comparison, low income people with downward social comparison, and low income people with upward social comparison. - low income people with downward social comparison has higher average subjective well-being level than low income and high income people with upward social comparison.

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Poohongthong and Uwanno (2009)	- study the relationship between living with Sufficiency Economy Philosophy and subjective well-being in farmers - compare the differences of living with Sufficiency Economy Philosophy and subjective well-being of farmers of a Sufficiency Economy Philosophy village and general farmers.	400 farmers in Khon Kaen Province (200 farmers who live in Sufficiency Economy Philosophy village and 200 general farmers).	- questionnaires consisted of upward and downward social comparison scales and happiness and well-being scales - correlation, Multiple regression	- living with Sufficiency Economy Philosophy has significant positive Correlation with subjective well-being. - farmers who live in Sufficiency Economy Philosophy village have higher subjective well-being level than general farmers significantly - living with Sufficiency Economy philosophy, the amount of land in agriculture, agricultural income, and the number of family member can predict subjective well-being.

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Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Thasuchat and Khamkaew (2008)	- construct happiness and well-being index. - evaluate happiness level and well-being using index and self-assessment scheme - study factors that influence happiness level and well-being	469 respondents who live in the community of Mae Poon Luang center and Tung Luang center which community members of Thai Royal Project Foundation	- focus group - Probit model	- happiness and well-being index are affected by 6 factors; 1) economic, 2) family relationships, 3) physical and mental health 4) social and cultural, 5) environment, 6) social-welfare and 7) good-governance. - economic factor is the most important factor of respondents 'view. - The average happiness level is in the middle stage - factors that have influence happiness level are household, social and culture, and environmental to be statistically significant factors.
Camfield, Guillen-Roya and Velazco (2010)	- explore the extent to which objective need deprivation predicts subjective and psychological well-being, controlling for location, socio-economic status, and gender.	1,183 households in Thailand and 1,500 in Bangladesh	- apply questionnaire following 1) WeD resources and needs questionnaires 2) intermediate need description index (INDI) 3) psychological well-being: WeDQoL 4) subjective well-being (PANAS and SWLS) - Multiple Regression	- need deprivation of Thai people is lower than Bangladesh people. - subjective and psychological well-being of Thai people is higher than Bangladesh people. - although measures of subjective and psychological well-being are correlated, they are not substitutable

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Changrian (2010)	measure happiness level and study factors that affect happiness level of urban and rural people	800 household heads in urban and rural areas in 4 regions: central region (excluding Bangkok), north region, northeast region, and south region (excluding three borders: Narathiwat, Pattani, and Yala province)	- 11 self- report scales of happiness level - multivariate analysis	- the average happiness level of rural household heads is 8.21 - the average happiness level of rural household heads is 7.7 - the factors that affected happiness level compose of the amount of time spent with family members, financial satisfaction, work satisfaction, community satisfaction, satisfaction with friends, health satisfaction, religious satisfaction, perceived sense of control, optimism, and self-esteem.
Yiengprugsawan et al. (2011)	study the relationship between mental health, demographic and happiness.	60,569 respondents of adult who study at Sukhothai Thammathirat Open University (STOU)	- short format Thai Mental Health Indicators (TMHI) set of questionnaire. - correlation	- the mental state and the social support domains moderately or strongly correlated with happiness - there are little effect of age and sex but marital status (divorced or widowed), low household income, and no paid work all had strong adverse effects to happiness.

Table 3.2 (continued)

Author	Main objectives	Data/Source of data	Independent variable /Analysis Method	Main finding
Guillen-Royo, Velazco and Camfield (2011)	Study the relationship between basic need, material wealth and happiness	745 respondents from seven communities in the South and North-east region of Thailand.	- 3 point scale of happiness; very happy, fairly happy and not too happy. - Ordered Probit model	- basic needs are important (positive relationship) for happiness, controlling for the location and wealth levels of the household. - wealth is significantly positive linked to happiness - satisfaction of basic needs and wealth should not be used interchangeably

3.6 Objective happiness (well-being)

Objective happiness pertains to the degree to which the requirements for having a high quality of life are met, such as basic needs, home ownership, health, and education. Objective well-being theory is typically supported by a list of requirements that people should have to lead a good life; these requirements are universal and constant across societies (Guillen and Velazco, 2006; Promphakping, 2006). Researchers are likely to evaluate objective well-being as composite index.

In order to evaluate objective happiness, this study focuses on either objective-list or preference-satisfaction accounts which composes of certain observable facts such as economic, social and environmental statistics. Objective-list or preference-satisfaction accounts bases on the assumptions about human needs and rights. There are many quality of life indexes which resemble to objective well-being index for example Physical Quality of Life Index (PQLI), Human Development Index (HDI), Gender-related Development Index (GDI), Quality of Life Index, Sustainable development Index.

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Some objective well- being composite index studies which applied in this study are illustrated in Table 3.3.

Table 3.3 Summary of objective well-being index.

Project name/Research name	Authors/Institute	Details
Process for Developing happiness indicators for the Population of Thailand	Thamrongwarangkul et al., (2000)	Composite index that evaluate happiness, made from eight attributes of happiness as followed 1) life insurance 2) mental and physical healthy 3) warm family 4) strong community 5) good environment 6) freedom 7) Dignity 8) access moral about living together harmoniously.
Thai well-being composite index	Thapsuwan (2007)	Composite index of Thailand gross well-being both weighted and non-weight calculates from six aspects of happiness with 13 indicators as followed 1) economic aspect consists of income, borrowing and debt burden, saving, housing materials, residential ownership 2) social environment aspect such as social capital in community 3) family aspect composes of warm family and marriage status 4) health and hygiene aspect composes of illness and health insurance 5) cultural and believing aspect includes satisfaction of self-status comparing with neighbors and charity 6) education aspect are the highest education level

Table 3.3 (continued)

Project name/Research name	Authors/Institute	Details
The Well-being in Developing Countries ESRC Research Group (WeD)	University of Bath (2015)	Consists of four elements of happiness as followed 1) human resources such as major activity/occupation, education, enough vaccination and nutrition, illness and medication 2) material resources, which are land and natural resource, livestock ownership, asset ownership, residence and sanitation, long term shocked, future circumstance, assets, transfer and another source of income 3) social resources such as relationship between relatives, relationship of local social, wider scope of relationship, relationship with market, financial management, relationship with government 4) cultural resources are language and social identity.
Personal well-being index (PWI)	Australian center on quality of life (2015)	Classifies quality of life as eight sections; 1) standard of living 2) personal health 3) successful in life 4) personal relationship 5) personal safety 6) social communication 7) future security 8) religion and believe.