THE EFFECTS OF SOCIOECONOMIC STATUS, WORK-LIFE BALANCE AND MENTAL HEALTH ON HAPPINESS AMONG THAI WORKFORCES

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ABSTRACT

Title of Dissertation	The effects of socioeconomic status, work-life balance and mental health on happiness among Thai workforces
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The main purpose of this study is to investigate the relationships between happiness and mental health (MH), socioeconomic status (SES), work-life balance (WL), family satisfaction (FS) and community satisfaction (CS). The variables of happiness are consisted of three components: life satisfaction, positive affect and negative affect. There are two elements for mental health: mental capacity (coping ability) and mental quality (kindness and altruism) while socioeconomic status variable is a composite indicator of education and income. We used the secondary data from the National Statistics Office of Thailand. The samples are composed of 8,585 voluntary respondents aged 15 years and over. The data were analyzed using structural equation modelling (SEM) with AMOS version 23.0 in order to test the relationships of factors affecting happiness.

The findings revealed that happiness was significantly correlated with SES, MH, FS, WL and CS. The correlations between happiness and SES, MH, FS, WL and CS were .32, .31, .22, .14 and .08, respectively. The total effect of SES, MH, FS, WL and CS toward happiness were .35, .306, .316, .165 and .216, respectively. The results suggested that SES, MH and FS were highly correlated with Thai workforce's happiness while WL and CS had rather low correlation with happiness. Mental health which comprising of coping ability, kindness and altruism played an important role as a partial mediator between happiness and all affecting factors.

There was a high statistically significant relationship between FS and CS which the covariance between FS and CS was 0.34. Moreover, the developed SEM model of happiness was proved to be able to predict happiness at an acceptable level of 40% ($R^2 = 0.4$).

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SYMBOLS AND ABBREVIATIONS

Symbols	Equivalence
$	Dollar
%	Percentage
e	error term
p-value	Probability value
α	Coefficient alpha
$\chi 2$	Chi-square

Abbreviations	Equivalence
B.C.	Before Christ
CFA	Confirmatory factor analysis
CFI	Bentler comparative fit index
CS	Community satisfaction
df	Degree of freedom
DRM	Day reconstruction method
EDU	Education
ERM	Ecological momentary assessment
ESM	Experience sample method
FS	Family satisfaction
GDP	Gross domestic product
GFI	Joreskog-Sorbom goodness of fit index
INC	Income
LS	Life satisfaction
MC	Mental capacity
MH	Mental health
MQ	Mental quality

N	Number of samples
NA	Negative affect
PA	Positive affect
R2	Squared multiple correlation
RMSEA	Steiger-Lind root mean square error of approximation
SD	Standard deviation
SE	Standard error
SEM	Structural equation modeling
SES	Socioeconomic status
SR	Structural regression model
SRMR	Standard root mean square residual
Std.	Standardized
SWB	Subjective well-being
TMHI	Thai mental health indicator
TMHI-15	Short form of Thai mental health indicator
Un-std.	Unstandardized
USD	United States Dollar
VIF	Variance inflation factor
WL	Work-life balance

CHAPTER 1

INTRODUCTION

1.1 Rationale and problem statement

The pursuit of happiness is probably the ultimate goals of human being (Frey & Stutzer, 2002). It is said to be the motivating factor (Rayo & Becker, 2007) and builds most of human thought, actions and creations (Peiro, 2006). Philosophers have studied happiness from the very beginning of their science more than 1,000 years ago (Frey & Gallus, 2013). Happiness is important as it leads to good health, longevity, social relationships, good citizenship and productivity at work (Lyubomirsky, King, & Diener, 2005). People who are happier tend to be healthier and live longer than those who are angry, depressed, and fearful. Happy workers are more productive and are better organizational citizens (Bockerman & Ilmakunnas, 2012; Judge, Thoresen, Bono, & Patton, 2001). Happier people are more likely to be hired, get promoted, have higher incomes (De Neve and Oswald, 2012) and seem to have better social relationships than people with lower happiness (Diener, Oishi & Lucus, 2015).

Happy life at least have physical basic needs such as food, drink, shelter, warmth, fresh air, sex and sleep and safety life such as protection, security, order and law and stability situations. Moreover, there are the other psychological needs love such as family, affection, relationships and work group, esteem such as achievement, status, responsibility and reputation and self-actualization such as personal growth, and fulfillment (Maslow, 1943).

Thailand is a middle-income country located at the center of the Indochina peninsula in Southeast Asia. The economy has been gradually changed from agricultural economy to industrialized country and services economy since the 1st National Economic and Social Development Plan (1961-1965). Each plan is implemented for five years. In the early stage of plan, all resources were put to

develop the infrastructures. Until the 8th plan from 1997, the development paradigm had shifted from a growth-oriented approach to people-centered development. Human beings were recognized as center for development and happy society was the ultimate goal. The 11th National Economic and Social Development Plan (2012-2016) which established the vision as "A happy society with equity, fairness and resilience". The plan would increase Thailand's capacity for resilience and adaptation, through the level of the family and the community up through the nation and people-centered progress and participation will be applied throughout the national development process (Office of the National Economic and Social Development Board). The outcomes of the development plans showed that Gross Domestic Product (GDP) per capita have been increased from 100 USD in 1960 to 5,977 USD in 2014 (World bank, 2016). It seems that country economic growth leads to the growth of citizen's income. However, do happiness of Thai workforce actually increase according to the growth of income?

Table 1.1 Thailand's GDP per capita

	1960	**1970**	**1980**	**1990**	**2000**	**2005**	**2010**	**2014**
GDP per Capita (current US$)	100	192	683	1,508	2,016	2,874	5,112	5,977
GDP per Capita (Thai Baht)	2,134	3,996	13,981	38,590	80,867	115,608	161,974	194,144

Source: World Bank, 2016.

Gallup World Poll (GWP) collects happiness data all around the world which have happiness data together with another factors involved, GDP per capita, social support, healthy life expectancy at birth, freedom to make life choices, generosity and perceptions of corruption. Thailand got 6.5 from a scale of 1-10 in the period 2013-2015 (Helliwell, Layard, & Sachs, 2016).

More money can buy more goods or material and services to fulfill the needs of these for individual. National economic growth creates the wealth to the nation. Easterlin (1973, 1995) found that the happiness of American people was not increased

after the economic development and growth during investigated when the income of everyone increased substantially. He proposed that the happiness evaluation of the people was made by comparing one's objective status with a subjective living level norm, which was significantly influenced by the average level of living of the society as a whole. If living levels increased generally, subjective living level norms rose. The individual whose income was unchanged will feel poorer and unhappy, even though his or her objective circumstances were the same as before. This happiness-income relationships is called happiness-income paradox or the Easterlin paradox. The relationships between growth in income and happiness is positive at a given time, those with higher incomes on average within the country at a given time those are, on average, happier. However, raising the GDP per capita does not increase significantly the happiness of the nation (Easterlin, 2005; Oishi & Kesebir, 2015; Opfinger, 2006).

Many studies yet verify significant positive relationships between income and happiness. Hagerty and Veenhoven (2003) reveals that greater income can fill more needs, so that with the economic growth of the nation will raise the happiness of entire nations. Well-being is positively linked to absolute income and rich countries are happier than slightly poorer ones and within countries when economic growth associated with rising happiness (Frank, 2012; Stevenson & Wolfers, 2008). The empirical research found that in the rich income countries show smaller effects of absolute income than poor income countries, consistent with diminishing marginal utility of money. In the long term changes of national income, the happiness will be increasing in the patterns of declining marginal utility (Diener, Kahneman, Arora, Harter, & Tov, 2009, p. 233).

Veenhoven (1991) argued that happiness in the sense of life satisfaction depends only partly on comparison, and even standards of comparison do not fully adjust to circumstances. The overall evaluation of life depends on how one feels affectively on the gratification of basic bio-psychological needs. Contrary to acquired 'standards' of comparison these innate 'needs' do not adjust to any and all circumstances: they mark in fact the limits of human adaptability. The better these needs are gratified the better we feel and the more satisfied we are with life. People cannot be happy in chronic hunger, danger and isolation.

In developing countries the high income growth rate will increase the happiness until the certain points. The subjective well-being will not increase along with the economic growth because the standard of living has been changed to the need of better condition and the economic growth causes various effects which have to consider. Human needs not only material goods, but also the other such as social, health, family and etc. (Easterlin, 2005, 2010). People evaluate the happiness from major life domains such as financial situation, physical and mental health, family, work and leisure, social relationships (Diener, 2006; Easterlin, 2001).

1.2 Objectives of the study

1) To investigate the effects of socioeconomic status, work-life balance, mental health, family satisfaction and community satisfaction on happiness among Thai workforces.

2) To formulate and verify the structural equation model of happiness and the affecting factors: socioeconomic status, work-life balance, mental health, family satisfaction and community satisfaction.

1.3 Research questions

1) How do the relationships of happiness and each of the affecting factors?

2) What are the associations of the affecting factors and happiness in structural equation model?

1.4 Scope of the study

This study aimed to investigate the relationships between the affecting factors and happiness among Thai workforces which the affecting factors were socioeconomic status, work-life balance, mental health, family satisfaction, and community satisfaction; and to formulate the structural equation model from these

affecting factors. The present study used the secondary data collected by the National Statistical Office.

1.5 Significance of the study

The purpose of this study is to understand the relationships of affecting factors on happiness. The structural equation modeling (SEM) technique is used to test a structural model which it will identify the life domains such as socioeconomic status, work-life balance, mental health, family satisfaction and community satisfaction domains on happiness among Thai workforces. The finding would show the relationships and mediating effects of these life domains and happiness which may be used by human resources development specialists for managing their staff aiming to get excellent performance and happiness for all. In a macro level, policy makers may use this to issuing the intervention measures to increase the happiness for Thai workforces.

1.6 Chapter summary

For human being, happiness may be the ultimate goal of life. Thailand has been developed her economic to modern economy for sixty years with the aim to increase the well-being or happiness to Thai people. In order to understand the causal relationships of happiness and many life satisfaction domains, SEM is a tool to implement in this study under the topic “The Effects of Socioeconomic Status, Work-Life Balance and Mental Health on Happiness among Thai workforces”.

CHAPTER 2

REVIEW OF LITERATURE

In this chapter, a review of the related literature pertaining to happiness and the relationships between happiness and mental health, socioeconomic status, family, community, and work-life balance is presented.

2.1 Happiness

2.1.1 Concept and definition of happiness

In philosophy, the word "happiness" was used as an umbrella term for the good life. The term happiness is synonymous with subjective well-being (Busseri & Sadava, 2011; Biswas-Diener, Vitterso, & Diener, 2005; Veenhoven, 2015, p. 521), with quality of life and well-being (Veenhoven, 2010), and with life satisfaction (Veenhoven, 2012). The terms life satisfaction, well-being, subjective well-being and happiness are often used interchangeably (Busseri & Sadava, 2011; DeJonge, Veenhoven, Kalmijn, & Arends, 2016; Diener, 2000; Eastelin, 2001, p. 465, 2005, p. 12; Veenhoven, 2009, p. 48; Veenhoven, 2015, p. 521). The term happiness and subjective well-being are assumed to share a common core of meaning (Busseri & Sadava, 2011; Larsen & McKibban, 2008) and are the same theoretical and empirical entity as the extent to which the individual enjoys life (Radcliff, 2013, p. 78). The term happiness has many different meaning and continually debates (Busseri & Sadava, 2011; Fisher, 2009; Veenhoven, 1984, p. 12).

Ancient Greeks, Aristotle (384-322 B.C.) stated eudaimonia in Nicomachean Ethics (Aristotle, 1990) which is translated happiness in English (Watermans, 1993).

Aristotle defined happiness as "an activity of the soul in accordance with virtue", which suggested that happy people should have good life with good action or virtuous activity or the virtue of contemplative life (Aristotle, 1990; Palmer, 2010, p.

86). Epicurus (341-270 B.C.) believed that the goal of life was happiness which was pleasure and associated with hedonism (Palmer, 2010, pp. 97 – 100).

In the 18th century, Jeremy Bentham (1789), used the concept of utility, defined happiness as the sum of pleasures and in the absence of pain in an introduction to the principles of morals and legislation which stated the classical moral philosophy that governments should aim at creating greater happiness for a greater number of citizens. This definition, hedonic approach of happiness, is an ancient concept rooting in Epicurus's philosophy (Fisher, 2009).

Veenhoven (1984, pp. 22-31; 2000) defined overall happiness is "the degree to which an individual judges the overall quality of his/her own life as a whole favorably". In evaluation of overall judgment life as a whole, there are two components of happiness, hedonic level of affect and contentment. Hedonic level of affect is the degree to which the various affects a person experiences are pleasant in character. Hedonic level of affect is the pleasantness experienced in affects, in feelings, in emotions and in moods which covers all concept of affective experience of happiness. Contentment is the degree to which an individual perceives that his aspirations are being met. The notion of contentment focuses the attention on aspirations and life goals and on evaluation of success with respect to these matters or perceives success in realizing goals which is a cognitive component of happiness.

Layard (2005, p. 12) defined that "happiness is a good feeling of enjoying life and keeping it to be continued". Radcliff (2013, p. 78) defined happiness as "enjoy life as a whole". Lyubomirsky (2007, p. 32) defined happiness as "the experience of joy, contentment, or positive well-being, combined with a sense that one's life is good, meaningful and worthwhile".

Diener (1984) investigated the definition of happiness from many philosophers and summarized happiness defining as "a living with virtue life, satisfaction with achieving desires and goals and having positive affect more than negative affect". Diener used subjective well-being (SWB) instead of happiness and defined SWB as "people's evaluations of their lives—the degree to which their thoughtful appraisals and affective reactions indicate that their lives are desirable and proceeding well" (Diener et al., 2015, p. 234). SWB composed of two types of components: cognitive judgments and affective reactions which reflected people's

positive and negative emotional reactions to their lives. The cognitive component was life satisfaction (LS) which was global judgments of one's life as a whole and the affective component composed of positive affect (PA) and negative affect (NA) where PA was experiencing many pleasant emotions and moods while NA was experiencing unpleasant emotions and moods (Diener, 1984; 2000).

2.1.2 Happiness components and component relationships

Happiness or subjective well-being (SWB) is composed of two types of components. The first type of component is a cognitive judgment concerning one's overall life satisfaction or contentment. The second type of component is affective experiences, reflecting people's positive and negative emotional reactions to their lives or hedonic level of affect (e.g. Brule & Veenhoven, 2015; Diener, 2000; Rojas & Veenhoven, 2013; Veenhoven, 2009).

The components of happiness including life satisfaction (LS), positive affect (PA) and negative affect (NA) are separable constructs and should be assessed and examined separately (Diener, 1984). Bradburn (1969; Bradburn & Caplovitz, 1965) pioneering research proposed that PA and NA were independent of one another and should not be seem as opposite ends of a single continuum of happiness or orthogonal dimensions rather than polar opposites. For example, a man could have an argument with his wife; this may increase their negative feelings without changing their underlying positive affect. Later on, this conclusion was supported by many research (e.g. Diener, Larsen, Levine, & Emmons, 1985; Steel, Schmidt, & Shultz, 2008) as well as another related issues (e.g. Bood, Archer, & Norlander, 2004; Cacioppo, Gardner, & Berntson, 1999; Fredrickson, 2001; Watson, Weise, Vaidya, & Tellegen, 1999).

Exploratory factor analysis (EFA) were used to confirm the separation of multiple measures of LS, PA, and NA (Balatsky & Diener, 1993; Diener & Emmons, 1985). There are a lot of research evidence to support the separable constructs of LS, PA and NA by factor analysis (e.g. Adler & Fagley, 2005; Heller, Komar, & Lee, 2007; Sagiv & Schwartz, 2000; Suh, 2002; Watkins Woodward, Stone, & Kolts, 2003).

Happiness components (LS, PA and NA) are not only separable but also correlated each other. In the early research of happiness, some researcher found high correlation value between life satisfaction and affective components (Kammann, Farry, & Herbison, 1984). By factor analysis, researchers found that measures of LS, PA and NA loaded moderately to high onto a single latent variable (Larsen, Diener, & Emmons, 1985; McNeil, Stones, & Kozma, 1986). Then hierarchical structure model of happiness/SWB was proposed with confirmatory factor analysis (CFA) results which happiness/SWB was a second order latent variable with high factor loading value of first order latent variables including LS, PA and NA (e.g. George, 1981; Lawton, 1983; Ling, 1985; Liang & Bollen, 1983; Stones & Kozma, 1985). This hierarchical structure model of happiness/SWB was supported and endorsed by many researchers with a lot of CFA research evidence (e.g. Arthaud-Day, Rode, Mooney, & Near, 2005; Busseri, Sadava, & DeCourville, 2007; Diener, Napa Scollon, & Lucas, 2003; Linley, Maltby, Wood, Osborne, & Hurling, 2009; Sheldon & Hoon, 2007; Vitterso & Nilsen, 2002).

2.1.3 Happiness measurement

2.1.3.1 Measurement methods

There are two different approaches to measure happiness: subjective and objective happiness where subjective happiness is measured by self-reports either single item or multi-item questionnaires and objective approach is physiological approaches in measuring brain waves (Frey & Stutzer, 2002, pp. 4-5). Modern medical testing equipment such as electroencephalogram (EEC) can capture higher electrical signal in the left front of the brain for positive feeling and higher electrical signal in the right front of the brain for negative feeling and magnetic resonance imaging (MRI) can scan and show pictures of brain activities directly linking to the mood of the people (Davidson, 1992; 2000; Layard, 2005, pp. 17-20).

Measures of subjective happiness including moods, emotions and overall judgments of life as a whole as well as the other life domains affecting to one's life are reflected through questionnaires or any self-report. In the early research, researchers studying the facets of happiness usually relied on only a single self-report item (Diener, 2000). Andrews and Withey (1976)'s questionnaire asked "How do you

feel about your life as a whole?" with 7-point rating scale ranging from delighted to terrible. The other single item survey research is the World Values Survey asking "Taking all together, how happy would you say you are: very happy, quite happy, not very happy, not at all happy?" and Euro-barometer surveys asking "How satisfied are you with the life you lead? Very satisfied, fairly satisfied, not very satisfied, not at all satisfied?" For multi-item survey questions, Watson, Clark, & Tellegen (1988) proposed PANAS (Positive and Negative Affect Scale) which measured both positive and negative affect. PANAS contained 10 positive and 10 negative words such as "interested", "excited", and "alert" and "distressed", "hostile", or "scared". Diener et al. formulated the Satisfaction with Life Scale assessing life satisfaction with items such as "In most ways my life is close to my ideal", and "So far I have gotten the important things I want in life" (Diener, Emmons, Larsen, & Griffin, 1985; Pavot & Diener, 1993). Survey data are relatively inexpensive and easy to manage (Diener, Inglehart, & Tay, 2013; Veenhoven, 2007).

There are another methods to assess the momentary feeling of affective components. The Experience Sampling Method (ESM) also called Ecological Momentary Assessment (EMA), was developed to collect information on people's reported feelings in real time in natural settings during selected moments of the day (Csikszentmihalyi, 1990; Stone & Shiffman, 1994). In ESM study, participants are prompt answer a set of questions immediately several times during the course of the day (or days) in a handheld computer or online mobile phone. Participant report current subjective experience by indicating the extent to which they feel the presence or absence of various feelings of the involving activities including physical location.

ESM is difficult to implement in large population samples. An alternative method is the Day Reconstruction Method (DRM), which combines elements of experience sampling and time diaries, and is designed specifically to facilitate accurate emotional recall. Respondents are asked to fill out a diary summarizing episodes that occurred at the end of the day by describing the details according to script. Both methods can yield a more accurate reflection of experiences and the results of ESM and DRM are remarkably similar (Kahneman, & Krueger, 2006). These method may have high cost.

2.1.3.2 Reliability and validity

Reliability may also call stability. The reliability of happiness measurement means that if asking the same question repeatedly, the answer shall be identical under the same life circumstances and the same concept measures with different items or scales shall produce the equivalent scores. The life satisfaction correlation scores between same measures at different short time intervals and between different measures are high. It implies the high reliability of those measures (Diener et al., 2013). Multi-item questionnaires are more reliability than single-item. Higher correlations are obtained if the average of a battery of life satisfaction questions is used instead of a single question. The reliability of multi-item life satisfaction measures over short time intervals is higher than single item (Michalos & Kahlke, 2010; Schimmack & Oishi, 2005).

Discriminant validity refers to the idea that a measure should not correlate with measures of other concepts. In actual practice many concepts in the behavioral sciences do correlate with each other. The acceptable level is low correlation value between measures for different concepts (Diener et al., 2013). Life satisfaction shows good discriminant validity from related concepts such as positive affect, negative affect, optimism, and self-esteem (Lucas, Diener, & Suh, 1996). Rojas and Veenhoven (2013) found that the correlation between life satisfaction and hedonic level of affect is relatively low but the correlation between life satisfaction and contentment is a very high (+0.85).

2.1.4 Theory of happiness

The following theories are presented to understand individual and societal differences in happiness. Each of the theories is supported by evidence but each one cannot explain all of the data. The proposed theories are described the concept of the theories.

2.1.4.1 Needs theory

Needs theory based on the assumption that people feel happy when they are fulfilled with the universal human needs. The universal human needs include basic biological needs for survival and other higher level needs such as social relationships (Diener & Lucas, 2000). Wealth nations possess not only the greatest

amounts of basic needs to fulfill their citizens but also their citizens can attain higher order needs; have better education and provide more extensive scientific infrastructures (Diener & C. Diener, 1995).

Maslow's (1943) hierarchy of basic needs compose of five levels of needs ranging from 1) Physiological needs 2) Safety needs 3) Love needs 4) Esteem needs and 5) The needs for self-actualization. The first two types of needs are physical which people will be happy with the fulfillment of these but be unhappy in the case of deficiency, whereas the others three needs are the higher level relevant to social relationships. According to the hierarchy, lower-level needs must be satisfied before higher-order needs can be fulfilled but reversal of the hierarchy could be happened.

Veenhoven (2014) proposed that needs theory is synonymous with livability theory and is linked to affect theory, which holds that happiness is a reflection of how well we feel generally. He defined needs theory of happiness as the view that happiness depends on the gratification of innate human needs, rather than on the meeting of socially constructed wants. Unlike "wants," human "needs" cannot be observed directly but must be inferred from universal motivation and from the consequences of non-gratification. Livability theory is based on the idea that universal human needs can be discovered by examining the characteristics of societies in which people flourish. Presumably, a happy society is one where most universal human needs are met (Veenhoven & Ehrhardt, 1995).

2.1.4.2 Set-point theory

Each person had an equilibrium level of happiness or set-points and tended to stay at this level over long period of time. Personality had the role of restoring equilibrium for specific kinds of life circumstances and the stability in personality was due to high genetic determination (Jackson, & Paunonen, 1980). Set-points were conceived as a genetically determined, individual difference for each individual, which strongly influenced each person's normal level of happiness (Cummins, Wooden, & Stokes, 2014). Set-points were determined by genes which was come from analysis of identical twins (Monozygotic) which found that identical twins who were reared apart in different environment showed very similar level of happiness (Lykken, & Tellegen, 1996; Tellegen et al., 1988). Results from the

research indicated that 50 percent of variance in happiness could be explained by genetic inheritance. Other studies found that the correlations of happiness scores between identical twins were always positive and usually statistically significant (e.g., Stubbe, Posthuma, Boomsma, & De Geus, 2005; Roysamb, Harris, Magnus, Vitterso, & Tambs, 2002). De Neve (2011) found that variations in life satisfaction were associated with different alleles in the serotonin transporter gene. Thus, happiness level was related to genetic inheritance.

At the extreme changing life circumstances, the level of happiness was deviated from the set-points of genetic capacity, the psychological processing system was adjusted with a secondary buffering system (Cummins, 2000), called hedonic adaptation (Brickman & Campbell, 1971). Such adaptation was a common in the natural world (Layard, 2005, p. 48). The example of hedonic adaptation: the happiness level of lottery winners soared initially and had returned back to the original based line within a short period (Brickman, Coates, & Janoff-Bulman, 1978). Silver's (1982) longitudinal studied of people with spinal cord injuries. Immediately after an injury, paraplegic and quadriplegic respondents showed high levels of fear and sadness and low levels of happiness. Over the relatively short eight week period of the study, however, levels of happiness increased and levels of sadness and fear decreased, suggesting adaptation back toward baseline levels.

2.1.4.3 Comparison theory

Comparison theory assumes that people evaluate their happiness level with a cognitive judgment comparing their actual life against standards of good life. Standards of comparison for good life are an outcome of socialization involving culture are changed depending on life circumstances (Rojas & Veenhoven, 2013). Veenhoven (1991) described three kinds of comparison. The first kind was social comparison which people tended to compare with the other persons close to them or in the same social class. The second kind was life-time comparison which people compared with their past experiences or their earlier living conditions. The third kind was comparing with aims or goals or aspirations in life which people tend to set their aspirations slightly above the level of their last achievement.

Michalos (1985) proposed Multiple Discrepancies Theory of happiness which assumes that we do not only compare with what we want and with what others have, but also with what we need and with what we deem fair.

Esterlin (2003) argued that the well-being depends only on attainments in economic theory. The well-being of aspirations is related to habit formation and interdependent preferences or social comparison. Habit formation is the happiness coming from the comparisons with past experiences which psychologist claimed as hedonic adaptation. Both social comparison and hedonic adaptation or habituation in comparison theory can explain the relationships between happiness and income and job satisfaction. Income comparison standards can influence job satisfaction (Clark & Oswald, 1996). However, comparison theory cannot explain well enough the relationships between happiness and family and health domains (Easterlin, 2003) and no evidence for leisure (Layards, 2006).

2.2 The relationships of mental health and happiness

Mental health was strongly related to happiness (Campion & Nurse, 2007) and happiness increases with health status (Gerdthama and Johannessonb, 2001). Mental health was a central determinant of happiness (Bovier, Chamot, & Perneger, 2004). Mental health was strongly related to happiness feeling in young Swiss adults (Perneger, Hudelson, & Bovier, 2004) and related to family satisfaction and community satisfaction (Mulvaney-Day, Alegria, & Sribney, 2007). Mental health (self-esteem) was strongly correlated to subjective well-being in individualistic cultures (e.g., European and American) more than collectivistic (e.g., East Asian) cultures (Uchida & Kitayama, 2009). Mental health (including self-esteem, mastery and active coping) was significantly related to family integration where family integration means the close relationships with family, family support and family communication (Rose, 2010). Health impairment was a key predictor and mediating variable of happiness and social support and SES in elderly (Bishop, Martin, & Poon, 2006). Perceive health was a partial mediator between happiness and two variables (income and social support) in European citizens in 25 countries (Rogatko, 2010).

Stressors and religious resources were partial mediator between socioeconomic status and happiness in Thailand (Elliott, 2014).

Seligman (2011, p. 183) proposed positive mental health which is mental in a stage of flourishing which is disorder free and is a presence positive emotion, engagement, meaning, good relationships and accomplishment. Mental disorder is a main cause of unhappiness in modern society (Touburg & Veenhoven, 2015, p. 394).

Kalayanee Senasu (2016) studying happiness of Thai people during 2009 to 2014 found that mental health was the most life satisfaction domain among mental health, family, community and work satisfaction in predicting happiness. Elliott (2014) found that mental health of Thai Buddhists was correlated significantly to happiness while good mental health associated with income and education. People with relatively good mental health, physical health, and high levels of happiness tended to report less financial hardship and household crowding. Family satisfaction was related to mental health among working mothers in Singapore (Canlas, 2015).

In the past, mental health was defined as the absent of mental disorder or absent of mental illness and changed to positive conceptualization term as mental well-being later (Frank, 1953; Smith, 1959; Vega & Rumbaut, 1991). World Health Organization (2004, p. 10, 2016, p. 1) defined mental health as a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community. This positive sense of mental health definition is the foundation for well-being and effective functioning for an individual and for a community. From the definitions examined, coping ability to alleviate stresses of life is important aspects of mental health functioning. The other functioning of mental well-being state is to make a contribution to community or society which need to have kindness and altruism or social volunteer mind.

Apichai Mongkol et al. have developed Thai Mental Health Indicator (TMHI) to measure happiness related to mental health for Thai people in four domains; mental state, mental capacity, mental quality and social support. Mental state domains measure positive and negative affects which is measuring affective happiness and social support domains involves life satisfaction domains. Mental capacity is measured capacity of mental health to solve problems or coping ability and mental

quality is concerning the spirit to contribute to society or having kindness and altruism. Coping ability, kindness and altruism are mental health functioning. Confirmatory factor analysis (CFA) was used to prove construct validity and discriminant validity of this instrument (TMHI). Validity of TMHI was acceptable. The reliability of TMHI was tested internal consistency with Cronbach's Alpha Coefficient more than 0.80 (Apichai Mongkol et al., 2009a, 2009b; Mongkol, Tangseree, Udomratn, Huttapanom, & Chutha, 2007).

Yiengprugsawan, Somboonsook, Seubsman and Sleigh (2012) using TMHI-15 which was short form of TMHI-55 found that mental state domain was strong correlated to happiness and life satisfaction and social support domains was moderate correlation. But the other 2 domains (mental capacity and mental quality) were not correlated.

Meaning of mental health in this study is mental functioning relating to coping ability, kindness and altruism and use TMHI-15 as an instrument in mental health measurement.

2.2.1 Coping ability

Lyubrominsky (2007, p. 151) defined coping as what people do to alleviate the hurt, stress, or suffering caused by negative event or situation. Coping strategies has a long history of development. Psychoanalyst, Dr. Sigmund Freud called coping strategies as defend mechanisms which used primitive mechanism to treat mental illness patients (Dombeck & Wells-Moran, 2006).

Emotional maturity and life successful of individuals are associated to kind of coping strategies used. People whose happiness levels are lower than average tended to behave less efficiently and perhaps even more irrationally (Folkman & Lazarus, 1980). They often exhibited inefficient coping abilities and strategies (Diener & Seligman, 2002; Lyubrominsky, 2007, pp. 150-151).

The two major coping strategies were emotion-focused and problem solving. The emotion-focused coping strategy involved efforts to regulate the emotional, demonstrative consequences of stressful or potentially stressful events. This behavior or coping strategy is used generally when a person perceives the situation to be uncontrollable or unable to begin to take action and oftentimes the only available

approach (Lyubrominsky, 2007, pp. 152-153). Problem focused strategies for coping are an effort to act in a positive manner in order to alleviate or eliminate stressful or potentially depressive circumstances (Folkman & Lazarus, 1980). Problem-focused coping basically involves solving problems. People use problem-focused coping when they believe that something constructive can be done about their situation and to use emotion-focused coping when they think that the negative event is something that simply must be endured (Lyubrominsky, 2007, p. 152). Research has shown that people tend to use both types of strategies to fight off stressful events and symptoms of depression (Folkman & Lazarus, 1980).

Another coping strategies are active and avoidant coping strategies. Active coping strategies are either psychological or behavioral responses designed to change the nature of the stressor or depressing event itself, included critical thinking whereas avoidant coping strategies involves attempting to evade a problem and deal with it indirectly (Roth & Cohen, 1986) but sometime avoidant coping strategies may lead people into activities and behaviors such as alcohol use or mental states such as withdrawal that keep them from directly addressing stressful events (Finset, Steine, Haugli, Steen, & Laerum, 2002).

Mayordomo-Rodriguez, Melendez-Moral, Viguer-Segui and Sales-Galan (2015) argued that Coping strategies were related to well-being where problem-focused coping positively predicted a significant portion of variance in wellbeing, while emotion-focused coping negatively predicted well-being.

Coping strategies was a partial mediator such as between happiness and dispositional optimism (Hanssen et al., 2015), happiness and self-serving attributional bias where self-serving attributional bias had tendency to attribute positive situations to internal, stable and global causes, and negative situations to external, unstable and specific causes (Sanjuan & Magallares, 2014). Coping strategies was a partial mediator between happiness and work-life balance. If employee coping strategies were improved to cope work-life interface and supported with organizational work-life balance program, the level of happiness was improved (Pienaar, 2008; Zheng, Kashi, Fan, Molineux, & Eem, 2016).

2.2.2 Kindness and altruism

Kindness is important virtue for long time ago in ancient Greek, Aristotle. There is scientific evidence that practicing acts of kindness without expectation of receiving in return is not only good for the recipient but also good for the doer. Because the mind of sharing and being generous makes people happy (Lyubomirsky, 2007, p. 126). Kindness is an important human strength that influences subjective well-being and contributes to good social relationships. Kind people experience more happiness and have happier memory. Kindness is closely associated with happiness in daily life (Otake, Shimai, Tanaka-Matsumi, Otsui, & Barbara, 2006)

People spending money to other in terms of gifts and donations to charity had more positive than spending for themselves (Andreoni, 1989, 1990). Giving more money to charity led to higher levels of happiness only when participants understood how these funds were used to benefit a recipient (Aknin, Dunn, Whilans, Grant, & Norton, 2013).

People who volunteer enjoy good physical and mental health. They are also more likely to report being happy and are less likely to suffer from depression (Thoits & Hewitt, 2001). People who doing higher levels of volunteer work were associated with higher levels of overall life satisfaction (Meir & Stutzer, 2008) either high or low socioeconomic status (Borgonovi, 2008). Pholphirul (2015) argued that giving enhanced one's happiness.

Altruism denotes the willingness to make voluntary transfers of resources to another person either among own family or strangers without own benefit only pleasure of seeing the happiness of others (Schwarze & Winkelmann, 2011). Hall (2006, p. 29) argued that altruism neutralizes negative emotions that affect immune, endocrine, and cardiovascular function. Altruism creates a physiological responses or "helpers high" that makes people feel stronger and more energetic and counters harmful effect of stress. The study of altruism within the extended family showed that parents happiness was statistically significant positively related to the happiness of their children when parents transfer income to their children. Increasing the happiness of one person is associated with happiness spillovers among a pool of related persons (Schwarze & Winkelmann, 2011).

2.3 The relationships of family satisfaction and happiness

Family did not only include spouses and children but also partners and people who did not reside in the same house (Kingston, 1989, p.59). As Thailand had a collectivist culture, family also extended to the relatives such as cousins. This could explain the strong family ties which were the characteristic of Thai family (Sauwalak Kittiprapas, Onnicha Sawangfa, Catherine Fisher, Nattavudh Powdthavee, & Kanokporn Nitnitiphrut, 2009, p. 72).

Marriage had universally been found to be strong correlate to happiness, from the World Value Survey results showed that being married increase both life satisfaction and happiness (Easterlin, 2003; Helliwell & Putnam, 2007, p. 448). Family relationships had significant correlation to happiness (Population Statics Group, 2014). Marriage and family satisfaction was one of the most important predictors of subjective well-being (Diener, 1984; Gomez, 2011). How family satisfaction was essential could be demonstrated in Morden (2003)'s work. He asserted that family satisfaction alone was accounted for 45% of life satisfaction staffs at a Canadian university when comparing it to the other life domains such as work, leisure and community (Morden, 2003). In the case of Thailand, family satisfaction played the important role in predicting happiness in Thai family (Senasu & Singhapakdi, 2014).

2.4 The relationships of work-life balance and happiness

Employment was a source of income used for life sustenance, accumulated wealth and increased other elements of happiness such as joy, meaningfulness and well-being (Hoffmann-Burdzińska, & Rutkowska, 2015). Balancing work and non-work demands was a critical challenge facing by most workforce since work–family relationships were complex (Baltes, Clark, & Chakrabarti, 2013; Eby, Casper, Lockwood, Bordeaux & Brinley, 2005).

Work was a life domain that was distinctive from other domains (Geurts, Beckers, Taris, Kompier, & Smulders, 2009). Non-work domain mainly meant family

which was not only spouses and children but also included parents, grandparents, siblings and relatives. For modern society, life domains were education, health, leisure, friendships, romantic relationships, family, household management, and community involvement (Keeney, Boyd, Sinha, Westring & Ryan, 2013). Clark (2000, p. 751) defined balance as "the satisfaction and good functioning at work and at home, with a minimum of role conflict." People who maintained more balance across their entire systems of roles and activities would have lower level of strain and depression and have higher level of happiness (Marks & MacDermid, 1996).

The role theory influenced the contemporary work-life balance perspectives which individuals had multiple roles in society, each of them had its own behavioral scripts, norms and expectations (Grawitch & Ballard, 2016). Most work-life balance researches arose from the role theory concerning the role demanding conflict between work and non-work roles (Greenhaus & Beutell 1985). Work-life facilitation occurred when engaging one domain that promoting positive functioning in another domain (Grzywacz & Marks, 2000). Work-life balance programs could be occurred by promoted work-life facilitation via different linking mechanism: spillover, compensation, segmentation-integration, resources drain and congruence (Edwards & Rothbard, 2000). For example, congruence in training time management could be used in both work and life domains, or segmentation-integration could be implemented by providing work flexibility programs.

The benefits of well-balanced work and life domains could lead to employees' job commitment and satisfaction (O'Neill et al., 2009), improve mental and physical health (Frone, Russell & Cooper, 1992; Soo, Rhokeun, & Zippay, 2011), marital and family functioning (Ferguson, Carlson, Zivnuska, & Whitten, 2012) and overall sense of happiness (Brough et al., 2014; Carlson, Grzywacz and Zivnuska, 2009; Haar, Russob, Sune, & Ollier-Malaterre, 2014).

Work-family conflict was significantly associated with mental health symptoms (stress, depression), physical health complaints, hypertension, greater alcohol consumption (Frone, Russell, & Cooper, 1997) and lower levels of life satisfaction (Allen, Herst, Bruck & Sutton, 2000). The outcome of strain from work-family conflict was stress spilling over (work and family influence one another) from family role into work role and vice versa (Kelloway, Gottlieb & Barham, 1999;

Rantanen, Kinnunen, Feldt, &, Pulkkinen, 2008). Family to work facilitation, as referred to family's capability to lessen the conflict of work and family in order to reduce stress, was a protecting factor of mental health (Grzywacz & Bass, 2003). The combination of organizational supervisors helping employees to reduce the interference of work to family and spouse support was most likely to reduce work-family conflict and subsequently increase the feelings of work-family balance (Greenhaus, Ziegert & Allen, 2012).

While work-life balance was strongly correlated with happiness (Haar, Russob, Sune, & Ollier-Malaterre, 2014; Hoffmann-Burdzińska, & Rutkowska, 2015), coping ability was a partial mediator between work-family conflict and happiness. Individuals who were coping well would had higher level of happiness than those who were not (Perrone, Ægisdóttir, Webb, & Blalock, 2006). Individuals with positive attitude and life coping strategies were happier because the strategies had indirect effects toward work-life balance programs and happiness (Zheng, Kashi, Fan, Molineux, & Ee, 2016).

2.5 The relationships of community satisfaction and happiness

The involvement of people in the community could create trust and eventually lead to community satisfaction (Helliwell & Putnam, 2007, p. 451). Nonetheless, in order to establish congruity in the community, its members must be self-contented first because they would likely to love socialize with people, be extravert, more agreeable, have stronger romantic sense, good social relationships and high coping ability (Diener & Seligman, 2002). Once the strong relationship among members was planted, it could enhance the overall community satisfaction. Such satisfaction was found to be essential in physical and mental health (Mulvaney-Day et al., 2007). To give an instance, in elderly, the quality of contact with friends was more important than the frequencies of contact and was more important than the interaction with their adult children. Moreover, the study showed that the interaction with friends of the elders was strongly related to happiness than that with their adult children (Pinquart & Sorensen, 2000). However, community satisfaction was weakly related to happiness

as it accounted only 1% comparing to other life satisfaction domains such as family, work and leisure (Morden, 2003). For Thailand, the interaction such as meeting and communicating with friends and relatives would enhance the social life satisfaction (Kittiprapas et al., 2009, p. 74). The community environment was important for quality of life such as deprived household concentration, crime and security, lack of social support and supporting facilities (Barton, Grant & Guise, 2010, pp. 13-14).

2.6 The relationships of socioeconomic status and happiness

According to Dutton and Levine (1989, p. 30), socioeconomic status (SES) was composed of "economic status (measured by income), social status (measured by education) and work status (measured by occupation)." For the purpose of this study, SES referred to only two components which were income and education as occupational level sometimes did not guarantee the same income. For example, managers in two companies might not have the same salary due to the size of the company and their responsibilities. Consequently, most of SES researches were typically measured by single variable such as income or education (Adler et al., 1994). The higher level of education tended to earn more money and enjoying the benefit of high income (Easterlin, 2001). Education was highly correlated to income independently of ability and family background (Ashenfelter & Rouse. 1999). A good education background is no guarantee for happiness but might help people to cope better with life, thus raising satisfaction (Frey and Stutzer, 2002, p. 66). Lower income and education tended to report of depressive symptoms comparing to higher education and higher income who might have more social and psychological resources to cope with stressful events (Adler et al., 1994).

Easterlin, Mcvey, Switek, Sawangfa & Zweig (2010) proposed the happiness-income paradox or Easterlin paradox. He argued that happiness varied directly with income for a period of time, but over the long term, normally ten years as a minimum, the relationships between happiness and income disappeared. When comparing the happiness-income paradox among developing countries, income was positively related to happiness at one period of time; however, within each country, happiness,

over the time, did not increase when income grew up. Easterlin (2001) further argued that happiness was, on average, constant over the life cycle. Nonetheless, higher income people were generally happier than those with lower income. In Thailand, income and education were integral factors affecting happiness. Income served the basic needs for people in lower revenue (Guillen-Royo, Velazco & Camfield, 2013). Regarding education, higher education was reported to significantly related to happiness (Landiyanto, Ling, Puspitasari & Irianti, 2011).

2.7 Conceptual framework of happiness model

The research framework was adopted to develop SEM model of happiness to examine the relationship between happiness and affecting factors: socioeconomic status, work-life balance, mental health, family satisfaction and community satisfaction. Mental health was a mediator in the model, as shown in figure 2.1. The variables of happiness were consisted of three components: life satisfaction, positive affect and negative affect. There were two elements for mental health: mental capacity (coping ability) and mental quality (kindness and altruism) while socioeconomic status variable was a composite indicator of education and income.

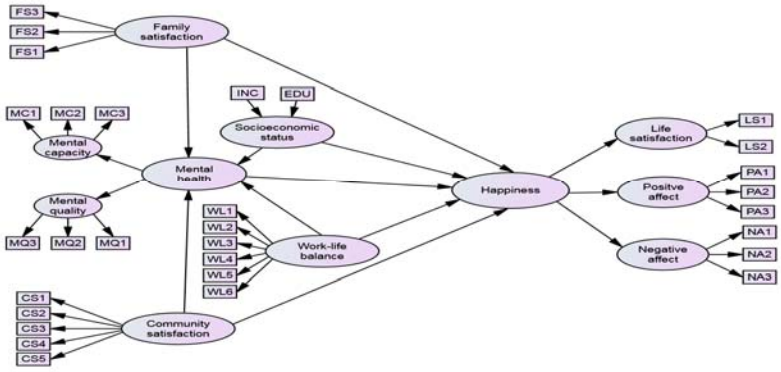

Figure 2.1 Conceptual framework of happiness model

Note: FS = Family satisfaction, CS = Community satisfaction, MC = Mental capacity, MQ = Mental quality, INC = Income, EDU = Education, WL = Work-life balance, LS = Life satisfaction, PA = Positive affect, NA = Negative affect.

The following summarized hypotheses are presented.

Hypothesis 1: Happiness is composed of 3 components as first order latent variables.

Hypothesis 2: Mental health is composed of 2 components as first order latent variables.

Hypothesis 3: Mental health will be positively related to happiness

Hypothesis 4: Family satisfaction will be positively related to happiness and mental health will be a partial mediator.

Hypothesis 5: Work-life balance will be positively related to happiness and mental health will be a partial mediator.

Hypothesis 6: Community satisfaction will be positively related to happiness and mental health will be a partial mediator.

Hypothesis 7: Socioeconomic status will be positively related to happiness and mental health will be a partial mediator.

2.8 Chapter summary

Happiness is an interested topic by philosopher to many scholars in many areas such as psychology, economics and sociology. Many of theory and definition of happiness are produced depending on each perspective. This review is only some of them and aims to understand the core concept. The relationships of happiness and satisfaction of life domains are reviewed. This study is to formulate the Structural equation model relate to the relationships among mental health, family satisfaction, work-life balance, community satisfaction, socioeconomic status and happiness.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter presents research paradigm, source of secondary data, measurement tools definition of key terms and statistical analysis tools.

3.1 Research paradigm: Post-positivism

A philosophical worldview influences the practice of research; therefore, it needs to be identified (Creswell, 2014, pp. 5-6). In this study, a post-positivist paradigm was employed. The post-positivist assumptions hold true for quantitative research which is called scientific method or empirical science (Creswell, 2014, p. 7). Post-positivism is based on the rationalistic, empirical philosophy. The underlying assumptions are belief that the social world can be studied in the same way as the natural world. The research paradigms are conducted with hypotheses, research questions, methods/design, participants, instruments and procedures to collected data based on measures completed by the participants or by observations recorded by the researcher, results/discussion and conclusion (Mertens, 2015, pp. 10-12).

3.2 Data collection

The research data analyzed in this study were collected by the National Statistic Office of Thailand as part of the Labor Force Survey which included the Mental Health Survey of August 2014 (National Statistic Office, 2015). The data were part of a stratified multi-stage sampling of 81,564 respondents to the Labor Force Survey. The samples were calibrated to ensure that the raw data is nationally representative using normalized weights. The survey data was collected from respondents who were at least 15 years old and who also responded to the Mental

Health Survey (based on the Thai Mental Health Indicator of Apichai Mongkol et al., (2009a, 2009b). The completed data were a total of 8,585 respondents.

3.3 Measures

As mentioned previously, the data were collected by the National Statistic Office of Thailand as part of the Labor Force Survey which included the Mental Health Survey (based on the Thai Mental Health Indicator developed by Apichai Mongkol
et al., 2009a, 2009b) of August 2014 (National Statistic Office, 2015). All of the statements asked the participants to remind and assess the events, symptoms, opinions and feeling of them during the past month except LS1 and LS2 which asked happiness and life satisfaction of overall life as a whole.

Happiness comprises of the cognitive and affective components and was assessed using three components. First, overall life satisfaction (LS) was measured with an 11-point Likert-type scale ranging from "completely unhappy" for LS1 and "completely dissatisfied" for LS2 (value of 0) to "completely happy" for LS1 and "completely satisfied" for LS2 (value of 10). Specifically, the questions used to measure life satisfaction are, "How would you rate your happiness nowadays?" (ปัจจุบันท่านมีความสุขอยู่ระดับใด - LS1) and "How would you rate your life satisfaction?" (ท่านรู้สึกพึงพอใจในชีวิตระดับใด - LS2). Second, positive affect (PA) was measured using three items asking in the last one month up to now "you are contented with life" (ท่านรู้สึกพึงพอใจในชีวิต - PA1), "You feel relaxed" (ท่านรู้สึกสบายใจ - PA2) and "You have self-esteem" (ท่านรู้สึกภูมิใจในตนเอง - PA3). Third, negative affect (NA) was measured using three items "You feel bored and discouraged in your daily living" (ท่านรู้สึกเบื่อหน่ายท้อแท้กับการดำเนินชีวิตประจำวัน - NA1), "You feel disappointed in yourself" (ท่านรู้สึกผิดหวังในตนเอง – NA2) and "You feel life is full of miseries" (ท่านรู้สึกว่าชีวิตมีแต่ความทุกข์ – NA3). The items of PA and NA were measured with a 4-point Likert-type scale ranging from "not at all" (value of 0) to "most" (value of 3).

Socioeconomic status. There are two components for socioeconomic status; income (INC) and education (EDU). Income was collected in the form of income per month in Baht and income data was divided into ten levels; first level was less than 5,000 and the tenth level was over 80,000. Education denoted individual's highest education level. Education data was divided into seven levels. The first level was lower than primary school and the seventh level was higher than Bachelor's degree. The details of income level and education level were in the table 1.

For work-life balance (WL), 6 items were used to measure respondents' work-life balance (Kalayanee Senasu, 2016). They were measured with a 4-point Likert-type scale ranging from "not at all" (value of 0) to "most" (value of 3). The specific questions used to measure WL were: "You feel very tired from your job and unable to do household work or to spend time with your family" (ท่านรู้สึกเหนื่อยมากกับการทำงานอาชีพจนไม่สามารถทำงานบ้าน หรือให้เวลากับครอบครัว - WL1), "You feel very tired from activities and chores at home or spending time with family and unable to do your job well" (ท่านรู้สึกเหนื่อยมากกับการทำงานบ้าน หรือให้เวลากับครอบครัวจนไม่สามารถทำงานอาชีพ – WL2), and "Things going on in your family life make it hard for you to concentrate at work" (ท่านรู้สึกว่าเป็นการยากที่จะมีสมาธิกับการทำงานอาชีพเพราะความรับผิดชอบที่มีต่อครอบครัว – WL3). These three questions were negative (work-family conflict) so scores were transformed to value in the same direction as positive questions (reverse-scored, i.e. 3 = 0, 2 = 1, 1 = 2 and 0 =3) for analysis. The other three questions were positively measured, "you feel satisfied in time allocation for working, personal life and family" (ท่านรู้สึกพึงพอใจในการจัดสรรเวลาของตนเองสำหรับการทำงาน ชีวิตส่วนตัว และครอบครัว – WL4), "You have time to relax and take care of yourself adequately" (ท่านมีเวลาพักผ่อนและได้ดูแลตัวเองอย่างเพียงพอ – WL5) and "You are happy with the current job" (ตอนนี้ท่านมีความสุขกับงานที่ทำอยู่ – WL6).

There were two components in assessing mental health: mental capacity (MC) and mental quality (MQ). Each measure had three items. For mental capacity, a 3-item scale was used to measure, and the specific questions were "You can face and accept problems which are difficult to solve" (ท่านสามารถทำใจยอมรับได้สำหรับปัญหาที่ยากจะแก้ไข – MC1), "You are confident to control your emotion in case of emergency or violent occurring" (ท่านมั่นใจว่าจะสามารถควบคุมอารมณ์ได้เมื่อมีเหตุการณ์คับขันหรือร้ายแรงเกิดขึ้น – MC2), and "You

are confident in facing life's crises" (ท่านมั่นใจที่จะเผชิญเหตุการณ์ร้ายแรงที่เกิดขึ้นในชีวิต – MC3). For mental quality, a 3-item scale was used to measure, and the specific questions were "You feel sympathetic to suffering people" (ท่านรู้สึกเห็นอกเห็นใจเมื่อผู้อื่นมีทุกข์ – MQ1), "You feel happy on helping people who have problems" (ท่านรู้สึกเป็นสุขในการช่วยเหลือผู้อื่นที่มีปัญหา – MQ2), and "You give assistance to other people when opportunity occurs" (ท่านให้ความช่วยเหลือแก่ผู้อื่นเมื่อมีโอกาส – MQ3). All of those items were measured with a 4-point Likert-type scale ranging from "not at all" (value of 0) to "most" (value of 3).

For family satisfaction (FS), a 3-item scale was used to measure, and the specific questions were: "You feel safe and secured when you are in the family" (ท่านรู้สึกมั่นคงปลอดภัยเมื่ออยู่ในครอบครัว – FS1), "If you are severely sick you believe your family will take good care of you" (เมื่อท่านป่วยหนักเชื่อว่าครอบครัวจะดูแลเป็นอย่างดี - FS2), and "Your family members love and care for each other" (ท่านและสมาชิกในครอบครัวมีความรักและผูกพันต่อกัน – FS3). The 3 items were measured with a 4-point Likert-type scale ranging from "not at all" (value of 0) to "most" (value of 3).

For community satisfaction (CS), a 5-item scale was used to measure, and the specific questions were: "You have friend or others in the community to help when you require" (ท่านมีเพื่อนหรือคนอื่นๆในสังคมคอยช่วยเหลือในยามที่ต้องการ – CS1), "You feel secure and safe for the property in this community where you live" (ท่านรู้สึกมั่นคง ปลอดภัย ในทรัพย์สินเมื่ออยู่ในชุมชนนี้ - CS2), "You feel confident that the living community is safe" (ท่านมั่นใจว่าชุมชนที่อาศัยอยู่มีความปลอดภัย - CS3), "When you are got trouble there are assistant units in the community such as temple, foundation, club and etc." (เมื่อเดือดร้อน มีหน่วยงานในชุมชนช่วยเหลือ เช่น วัด มูลนิธิ ชมรม ฯลฯ – CS4) and "There are health care units near your house" (มีหน่วยงานสาธารณสุขใกล้บ้าน - CS5). The 5 items were measured with a 4-point Likert-type scale ranging from "not at all" (value of 0) to "most" (value of 3).

3.4 Definitions of key terms

"Happiness" is defined as the degree to which an individual judges the overall quality of one's life as-a-whole favorably including life satisfaction (Veenhoven, 1984, p. 22) which happiness is composed of LS, PA and NA.

"Life satisfaction" is defined as a cognitive judgments of one's life.

"Positive affect" is defined as a presence positive emotion, engagement and meaning of mental health and also being the presence of flourishing (Seligman, 2011: 183).

"Negative affect" is defined as a state of boring and discouraging in daily living and feel disappointed in life with full of miseries.

"Mental health" is defined as a state of having a mental capacity with a good mental quality.

"Mental Capacity" is defined as a mental health in coping the difficult situations with confidence to control the emotion in any life crisis.

"Mental Quality" is defined as a feeling of kindness and altruism to the other people.

"Family satisfaction" is defined as a good relationships within the family, taking care each other, giving assistant and supporting when required.

"Community satisfaction" is defined as a community living together with trust secure and save with a good facilities to support the daily life.

"Work-life balance" is defined as the satisfaction and good functioning at work and at home, with a minimum of role conflict.

"Socioeconomic status" is composed of education level and income earned.

3.5 Statistical analysis

The descriptive statistics is analyzed with SPSS. The hypotheses are examined with structural equation modeling (SEM) using AMOS version 23.0 (Analysis of Moment structures) (Arbuckle, 1989, pp. 66-67). Before analyzing in SEM, data

should be screened to prevent the potential problems happened. These primary statistical tools for data screening are examined collinearity or multivariate collinearity, outliers, missing data, normality and reliability.

SEM is not a single statistical methodology but instead refers to a family of related procedures (Kline, 2016, p. 9) that seeks to examine the interrelationships of observed variables or manifest variables or indicators to latent variables or unobserved variables or constructs and the relationships among latent variables and the specified structural relationships model can be analyzed simultaneously akin to estimate multiple regression equations simultaneously (Hair, Black, Babin, & Anderson, 2010, pp. 634-635).

Byrne (2001, p. 3) describes SEM as "as statistical methodology that takes a confirmatory (i.e., hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon. . . The hypothesized model can then be tested statistically in a simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data. If goodness-of-fit is adequate, the model argues for the plausibility of postulated relations among variables; if it is inadequate, the tenability of such relations is rejected."

Pearl (2012) defines SEM as a causal inference method that takes three inputs and produces three outputs. The inputs are:

I-1. A set of qualitative causal theoretical assumptions and data from empirical studies are expressed in a structural equation model. Only some of the variables could be verified by the data.

I-2. A set of questions concerning causal and counterfactual relationships among variables of interest. All questions follow from model specification.

I-3. A set of experimental or non-experimental data can be analyzed by SEM.

The outputs are

O-1. A set of logical implications statements which have no direct effect be tested.

O-2. Structural model parameters are estimated both direct and indirect effect.

O-3. The testable statistical implications of the model and the degree of goodness of fit are supported by the data.

In SEM, exogenous variables are referred to covariances or correlations between independent variables (Kline, 2016, p. 121) that cause fluctuations in the values of other variables in the model (Byrne, 2001, p. 5) and endogenous variables are referred to dependent variables that receive at least one path (one-way arrow) from another variable in the model (Raykov & Marcoulides, 2006, p. 13). Mediating variables or intervening variables are endogenous variables that handle dual role as independent and dependent variables at the same time (Geiser, 2013, p. 24) and the effects that transmit through the mediating variables onto dependent variables are called mediator effect or indirect effect (Kline, 2016, p. 134).

SEM consists of two parts, a measurement model and a structural model. Measurement model defines the relations between the observed variables and latent variables or constructs and describes how well the observed indicator variables serve as a measuring instrument for the underlying constructs they are designed to measure (Byrne, 2001, p. 12). Measurement model of SEM is the confirmatory factor analysis (CFA) that the purpose of CFA is to test the reliability of observed variables and the underlying latent variables and to confirm the proposed factorial structure (Wang & Wang, 2012, p. 4). Structural model is the path model, which defines relations among the unobserved variables. It represents hypotheses about the directional and the effects of the exogenous latent variables on the endogenous latent variables or indirect effect through the other endogenous latent variable or mediator (Byrne, 2001, p. 12).

There are six basic steps in analysis of SEM (Kline, 2016, p. 118);

1) Model specification: It is based on hypotheses which are the most important step.

2) Model identification evaluation: This step is check the model whether it is theoretically possible for computer to analyze every model parameters.

3) Instrument measurement selection for constructs, data collection and screening: The extreme score data or outliers shall be managed to reduce the influence. The missing data should be handled appropriately. The data are checked normality with skew index (SI) and kurtosis index (KI). Score reliability is measured be coefficient alpha or Cronbach's alpha.

4) Model estimation:

(1) Model fit testing with fit indexes: The most generally used to test model fit in SEM report has four fit indexes, Steiger-Lind root mean square error of approximation (RMSEA), Joreskog-Sorbom Goodness of Fit Index (GFI), Bentler Comparative Fit Index (CFI), and Standardized Root Mean Square Residual (SRMR). If the evaluation values is poor, it should skip to step 5 to re-specify the model.

(2) Interpretation of estimated parameter.

(3) Equivalent model consideration (skip to step 6).

5) Model re-specification or modification: It is referred to theoretically justifiable possible change. It may be model trimming or building (return to step 4).

6) Report the results.

Kline (2016, pp. 338-339) suggest two steps modeling;

1) A fully latent structural regression model (SR) is transformed to CFA model. Then, CFA model is analyzed to evaluate the measures which a set of variables presumed to measure the same construct shows convergent validity or factor loading values are at least moderate in magnitude and a set of variables presumed to measure the different constructs shows discriminant validity or covariances between constructs are not too high (Kline, 2016, p. 93). CFA model evaluate the distinctiveness of the dimensions underlying the various study's measures in the combined sample and to provide a support for the unidimensionality (no covariance of error term between indicators or no indicator loads on ≥ 2 factors) of each construct (Kline, 2016, p. 195). CFA model is tested the fit of model and data. If the fit value is bad. Model specification or hypotheses have to reconfirm. Low factor loading coefficient of observed variables may be dropped from the model.

2) After CFA measurement model is acceptable, structural model is performed and model modification may be required to solve fit of the model. But any model modifications should be based on theoretical supporting. Structural model can be trimmed or built. Model respecification may be needed if the model is not identified (underidentified or just-identify).

In this study, the constructs or latent variables of exogenous variables are work-life balance, socioeconomic status, family satisfaction and community satisfaction and endogenous variable is happiness while mental health is mediator.

In this study, there are 11 latent variables as shown the model in figure 3.1. Happiness and mental health are second-order factor where life satisfaction, positive affect and negative affect are first-order factors of happiness and mental capacity and mental quality are first-order factors of mental health. Work-life balance, family satisfaction and community satisfaction are exogenous variables. Happiness and mental health are endogenous variables but mental health is also as a mediator. Income and education are formative indicators or cause indicators to form socioeconomic status which is called a latent composite. Unlike the previous indicators are reflective indicators. This latent composite is not undimensional and no has disturbance, so it cannot be analyzed in CFA. Also, formative indicators have no error terms (Bollen & Lennox, 1991; Diamentopoulos, Reifler & Roth, 2008; Grace & Bollen, 2008; Kline, 2016, pp. 197, 355).

CFA was conducted using AMOS. Maximum likelihood estimation method was used in the calculation both CFA and structural model estimation. This CFA model was a second order CFA model which had mental health and happiness as second order factors.

The goodness of fit indexes that are using to evaluate in this study are goodness-of-fit index (GFI), adjusted GFI (AGFI), the comparative fit index (CFI), the root-mean-square error of approximation (RMSEA), and the root mean residual (RMR).

Chi-square ($\chi 2$) statistic together with normed chi-square ($\chi 2/df$) are usually use to test fit of the model which $\chi 2$ of model fit is low value and non-significant p-value. This study was not used to evaluate the fit of the model because this study had large sample size (N = 8,585) that $\chi 2$ tend to increase along with the sample size, many observed variables or large correlations size which big correlations among observed variable leads to higher value of $\chi 2$ and a high degree of model complexity (Hair et al., 2010, pp. 668-672; Kline, 2016, p. 271).

The indicating value of better fit of GFI is greater than 0.95 (Hair et al., 2010, p. 667). The AGFI differs from GFI only adjusting the number of degree of freedom in the model compared with the number of parameters. AGFI values are typically lower than GFI values in proportion to model complexity. AGFI is less sensitive to sample size and model complexity (Hair et al., 2010, p. 669).

The indicating value of acceptable fit of CFI was CFI ≥ 0.95 (Kline, 2016, p. 277). For RMSEA, the indicating value of good fit was suggested that RMSEA ≤ 0.05 (Kline, 2011, p. 206). The sign of a good fit of RMR was usually RMR ≤ 0.05 (Byrne, 2001, p. 82; Blunch, 2013, p. 117)

After CFA model performing, structural model was performed to evaluate the degree of fit for SEM model. When an initial model does not fit well, Lagrange Multiplier (score) and Wald tests can be used to identify how an initial model might be modified.

3.6 Chapter summary

This chapter started with research paradigm using post-positivist assumptions. The secondary data were used. The question statements using in the questionnaire were presented with translation into English. The definitions of key terms in this study were defined. SEM concept and methodology were presented. SPSS and AMOS software were used to analyze the data and model.

CHAPTER 4

DATA ANALYSIS AND RESEARCH RESULT

4.1 Descriptive statistic

Data were used from a total 8,585 workforce respondents who completed the questionnaires. A summary of the demographic, geographic, and socioeconomic status information are displayed in the table 4.1. The workforce respondents are male 51% and female 49%. Range of age was 18% among respondents age 15-29, 78% among respondents age 30-60, and 4% among ages over 60. The marital status of respondents was 21% single, 68% married and 11% widowed/divorced/separated.

The geographic residence of workforces lived 60% in urban area and 40% in rural area. The respondent came 6% from Bangkok which is capital of Thailand, 36% from central part of Thailand, 21% from the north, 19% from the northeast, and 18% from the south.

The occupation of workforces were 13% in agriculture sector and 87% in non-agriculture sector. In term of education, they were 38% in the level of primary school or lower, 37% was in the level of secondary school till diploma, and 25% in the level of bachelor's degree and higher. Most of the workforce respondents or 55% of respondents earned income 10,000 Baht per month (285 USD for exchange rate at 35 Baht per USD) or at minimum wage (300 Baht per day) and lower. Their income were 10,001-20,000 Baht for 27% of respondents, 20,001-50,000 Baht for 15% of respondents and only 3% of respondents earned more than 50,000 Baht per month.

Table 4.1 Demographic, socioeconomic and geographic information

	Number	Percentage
Sex		
Male	4,390	51.1
Female	4,195	48.9
Age		
15-29	1,530	17.8
30-39	2,310	26.9
40-49	2,422	28.2
50-60	1,987	23.1
Over 60	336	3.9
Marital Status		
Single	1,778	20.7
Married	5,878	68.5
Widowed/Divorced/Separated	929	10.8
Geographical residence		
Urban	5,144	59.9
Rural	3,441	40.1
Region		
Bangkok	479	5.6
Central	3,089	36.0
North	1,812	21.1
North-east	1,660	19.3
South	1,545	18.0
Occupation		
Agriculture	1,076	12.5
Non-agriculture	7,509	87.5
Education		
No/Less than Primary School	1,532	17.8
Primary School	1,682	19.6
Secondary School	1,247	14.5
High School/Vocational Certificate	1,430	16.7
Diploma/High Vocational Certificate	555	6.5
Bachelor's degree	1,795	20.9
Higher than Bachelor's degree	344	4.0
Income per month (Baht)		
Less than & equal 5,000	1,181	13.8
5,001- 10,000	3,505	40.8
10,001-20,000	2,345	27.3
20,001-30,000	688	8.0
30,001-40,000	353	4.1
40,001-50,000	235	2.7
50,001-60,000	140	1.6
60,001-70,000	66	.8
70,001-80,000	22	.3
More than 80,000	50	.6
Total	8,585	100.0

4.2 SEM analysis

4.2.1 Data screening

Data were screened with primary statistical tools to prevent the problems such as collinearity or multivariate collinearity, outliers, missing data, normality and reliability. Input Data are displayed in table 4.2 that it contains the values of correlations, mean, standard deviations, and coefficient alpha.

There were no missing data from a total of 8,585 respondents and no extreme scores to cause multivariate outlier. The data were examined for the normality with skew index and kurtosis. The absolute values of skew index > 3.0 were extreme skew and absolute values of kurtosis > 10 indicated a problem (Kline, 2016, pp. 76-77). The skew values of these variables were from -2.036 to 2.422 and the values of kurtosis were from -1.257 to 6.652. Therefore, it was concluded that all variables had sufficient multivariate normality and linearity to satisfy the requirements of the SEM data analysis.

Tolerance and variance inflation factor (VIF) were statistical tool to evaluate multivariate collinearity or multicollinearity. After data were computed in SPSS, tolerance values were > 0.1 and VIF were < 10. These meant that all variables had no multicollinearity (Kline, 2016, p. 71).

The internal reliability of all observed variables was achieved adequate internal consistency reliability with Cronbach's alpha or coefficient alpha (α) more than .7 (0.795 - 0.829) (Kline, 2016, p. 92).

Table 4.2 Input data (correlations, mean, standard deviations, and coefficient alpha) for analysis of a structural regression model of happiness

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
SES																														
1.EDU	1.00																													
2.INC	.577	1.00																												
Work-life balance																														
3.WL1	.036	.024*	1.00																											
4.WL2	.031	.037	.652	1.00																										
5.WL3	.017	.026*	.520	.668	1.00																									
6.WL4	.103	.091	.163	.134	.135	1.00																								
7.WL5	.097	.068	.188	.115	.086	.435	1.00																							
8.WL6	.223	.216	.119	.066	.031	.365	0.473	1.00																						
Family satisfaction																														
9.FS1	.110	.093	.046	.064	.074	.296	.231	.303	1.00																					
10.FS2	.122	.104	.066	.078	.071	.271	.225	.312	.715	1.00																				
11.FS3	.135	.120	.056	.066	.065	.249	.208	.300	.646	.765	1.00																			
Community satisfaction																														
12.CS1	.075	.079	.036	.013	-.006	.276	.222	.243	.251	.246	.241	1.00																		
13.CS2	.032	.041	.068	.064	.037	.310	.272	.283	.293	.259	.242	.440	1.00																	
14.CS3	.020	.032	.064	.064	.044	.307	.265	.269	.282	.256	.230	.408	.826	1.00																
15.CS4	-.014	-.018	.053	.038	.034	.236	.171	.145	.146	.148	.130	.462	.352	.353	1.00															
16.CS5	.041	.015	.053	.036	.035	.285	.219	.184	.158	.141	.132	.333	.337	.341	.513	1.00														
Mental health-Mental capacity																														
17.MC1	.056	.084	.091	.104	.089	.207	.188	.187	.178	.158	.154	.184	.224	.203	.125	.153	1.00													
18.MC2	.064	.094	.073	.090	.073	.242	.212	.211	.188	.173	.171	.217	.246	.229	.149	.165	.685	1.00												
19.MC3	.056	.098	.071	.075	.058	.235	.206	.218	.182	.171	.168	.224	.251	.234	.142	.171	.635	.788	1.00											
Mental health-Mental quality																														
20.MQ1	.072	.071	.050	.073	.054	.268	.219	.249	.282	.248	.242	.330	.302	.297	.217	.225	.296	.320	.329	1.00										
21.MQ2	.082	.083	.046	.070	.062	.262	.205	.251	.320	.260	.260	.323	.276	.271	.203	.216	.265	.274	.278	.696	1.00									
22.MQ3	.099	.106	.042	.039	.020	.285	.243	.273	.312	.255	.239	.379	.297	.297	.267	.241	.247	.270	.273	.599	.648	1.00								
Life satisfaction																														
23.LSI	.284	.251	.185	.141	.107	.271	.283	.386	.254	.264	.261	.220	.203	.189	.129	.162	.174	.192	.198	.173	.180	.211	1.00							
24.LS2	.285	.264	.179	.123	.098	.270	.278	.392	.254	.262	.256	.221	.197	.183	.124	.154	.184	.191	.206	.186	.187	.218	.880	1.00						
Positive affect																														
25.PA1	.243	.237	.115	.062	.020	.336	.346	.482	.280	.288	.283	.267	.242	.232	.161	.183	.198	.224	.220	.222	.211	.260	.499	.533	1.00					
26.PA2	.201	.182	.116	.066	.030	.324	.345	.451	.275	.290	.270	.240	.232	.221	.143	.166	.187	.208	.207	.205	.209	.245	.499	.489	.691	1.00				
27.PA3	.256	.251	.108	.065	.036	.326	.308	.462	.285	.299	.286	.246	.242	.228	.148	.175	.198	.221	.209	.211	.221	.248	.441	.462	.627	.583	1.00			
Negative affect																														
28.NA1	-.129	-.106	-.311	-.282	-.218	-.135	-.131	-.177	-.081	-.088	-.073	-.073	-.049	-.054	-.056	-.043	-.070	-.055	-.051	-.031	-.029	-.065	-.278	-.276	-.204	-.227	-.174	1.00		
29.NA2	-.082	-.084	-.270	-.274	-.242	-.106	-.090	-.133	-.070	-.078	-.069	-.067	-.043	-.048	-.072	-.043	-.067	-.035	-.043	-.035	-.052	-.052	-.206	-.215	-.160	-.156	-.158	.505	1.00	
30.NA3	-.119	-.095	-.299	-.291	-.254	-.132	-.123	-.154	-.097	-.103	-.092	-.085	-.056	-.067	-.067	-.062	-.033	-.045	-.052	-.042	-.044	-.073	-.267	-.255	-.180	-.210	-.161	.452	.498	1.00
Mean	2.53	1.86	2.56	2.72	2.70	1.90	1.92	2.04	2.15	2.19	2.24	1.82	1.94	1.93	1.56	1.71	1.75	1.79	1.79	1.92	1.96	1.89	7.59	7.57	1.96	1.95	1.97	.35	.19	.24
SD	1.89	1.36	.65	.55	.60	.48	.47	.50	.49	.52	.52	.54	.48	.48	.74	.69	.61	.57	.57	.49	.48	.51	1.18	1.21	.49	.48	.55	.55	.44	.48
α	.829	.813	.813	.813	.814	.806	.807	.804	.806	.805	.806	.806	.806	.807	.810	.808	.807	.806	.806	.806	.806	.805	.795	.795	.802	.804	.802	.825	.821	.823

Note: All correlation are significant at the .01 level (2-tailed) except *significant at the .05 level and _underline is not significant correlation.

4.2.2 Measurement model

The initial measurement model was specified as a first order CFA model with eight factors: work-life balance (WL), family satisfaction (FS), community satisfaction (CS), mental health (MH), mental capacity (MC), mental quality (MQ), happiness (HA), life satisfaction (LS), positive affect (PA), and negative affect (NA).

This measurement model was unidimensionlity which each indicator was loaded only on the specified latent variable and residual terms were not correlated (Kline, 2016, p. 195). The model was tested which displayed in figure 4.1 in standardized estimates. All variables were statistically significant at the .001 level. The fit indices of the model did not fit well with the data, $\chi 2$ =14,514, df = 322, p-value < 0.001, GFI = 0.87, AGFI = 0.837, CFI = 0.881, RMR = 0.036 and RMSEA = 0.072.

Each of factor loadings were examined convergent validity whether the values of loading coefficient were at least moderate in magnitude (Kline, 2016, p. 93). Standardized factor loading coefficient of WL4, WL5 and WL6 on WL and CS4 and CS5 on CS were less than 0.5 (see table 4.2). All of these indicators were eliminated from the model. Then, the fit indices of the model showed fit well, $\chi 2$ =2,373, df = 202, p-value < 0.001, GFI = 0.977, AGFI = 0.968, CFI = 0.979, RMR = 0.013 and RMSEA = 0.035. The model was displayed in figure 4.2 in standardized estimates.

Then, second order CFA was performed. MH was the second order latent variable which had MC and MQ as the first order latent variables while HA was also the second order latent variable which had LS, PA and NA as first order latent variables. All variables were statistically significant at the .001 level. The fit indices of the model fit well with the data, $\chi 2$ =3,789, df = 215, p-value < 0.001, GFI = 0.964, AGFI = 0.954, CFI = 0.966, RMR = 0.019 and RMSEA = 0.044. The model was displayed in figure 4.3 in standardized estimates.

The estimated factor correlations in the table 4.3 and figure 4.3 were not high from 0.077 to 0.551 which implied discriminant validity (Kline, 2016, pp. 93-94) except factor correlations between LS and PA was 0.65 (Figure 4.2). Life satisfaction was cognitive evaluation and positive affect was affective evaluation which affective was mood and emotion. Affective and cognitive evaluation could influence each other but the factor correlations were still acceptable. These findings were consistent with

Rojas & Veenhoven (2013), using data of Gallup World Poll survey in 127 nations over the years 2006 - 2010, who found that feeling good tended go together with contentment and no countries where people were contented in spite of feeling miserable. Positive affective was moderately associated to cognitive.

4.2.3 Structural model

The initial structural model was specified with direct paths from work-life balance, family satisfaction, and community satisfaction to both happiness and mental health and direct path from mental health to happiness. Socioeconomic status (SES) which had two formative observed variables: education (EDU) and income (INC) was added to the model and was specified with direct paths to happiness and mental health. The model evaluation did not fit well, $\chi 2$ = 8,569, df = 262, p-value < 0.001, GFI = 0.930, AGFI = 0.914, CFI = 0.924, RMR = 0.094 and RMSEA = 0.061.

Covariance line between EDU and INC was created. The model fit better, $\chi 2$ =5,089, df = 261, p-value = 0.000, GFI = 0.956, AGFI = 0.945, CFI = 0.956, RMR = 0.033 and RMSEA = 0.046. The second model modification was created the covariance line between family satisfaction and community satisfaction (Figure 4.4 and Figure 4.5). The model fit well, $\chi 2$ =4,261, df = 260, p-value < 0.001, GFI = 0.963, AGFI = 0.953, CFI = 0.963, RMR = 0.029 and RMSEA = 0.042. The fit indices of all tested model were presented in the table 4.4. All structural regression coefficients were statistically significant (p-value < 0.001) and most of the coefficient values did not change comparing to measurement model. Covariances between EDU and INC and FS and CS were also statistically significant. Covariance between FS and WL were tested but it was not statistically significant.

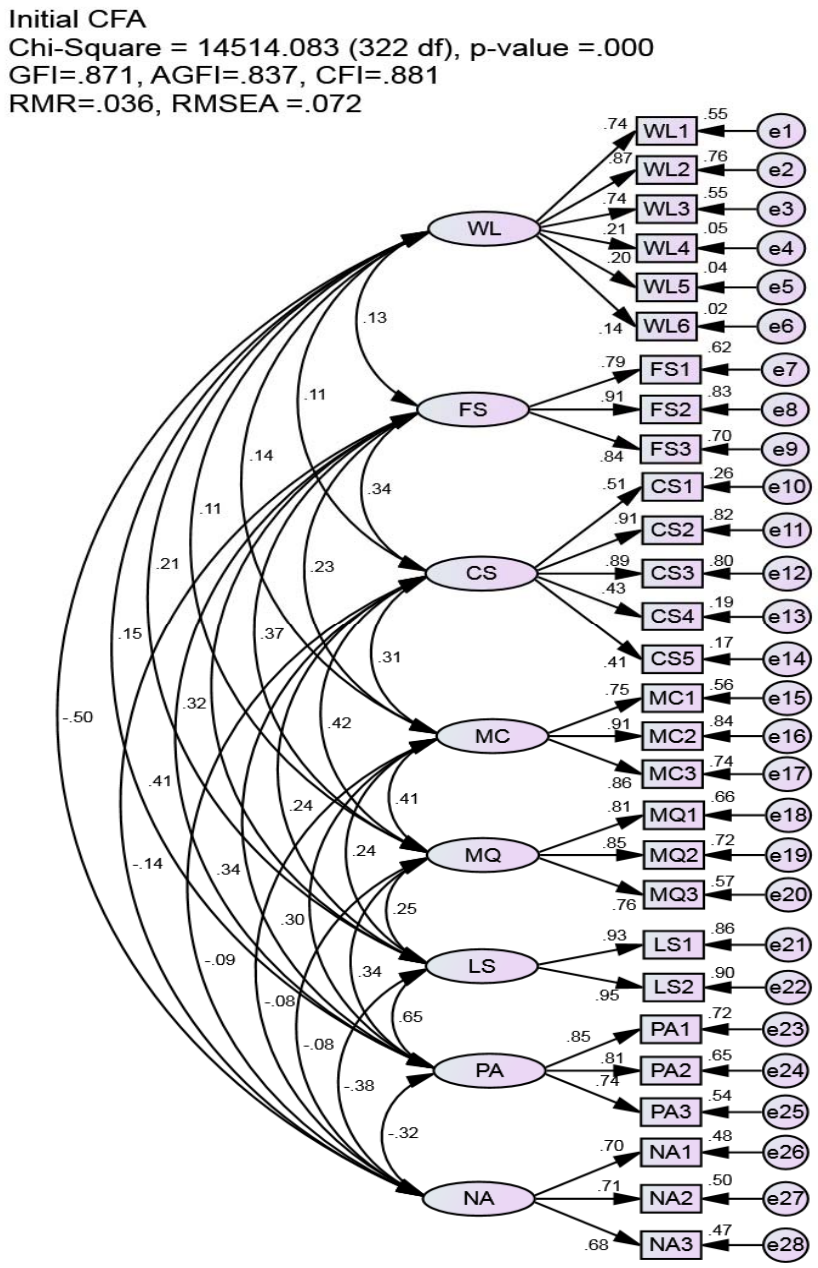

Figure 4.1 Initial CFA model of affecting factors and happiness with standardized estimates

Note: Estimates are reported as standardized and the standardized estimates are all statistically significant at the .001 level.

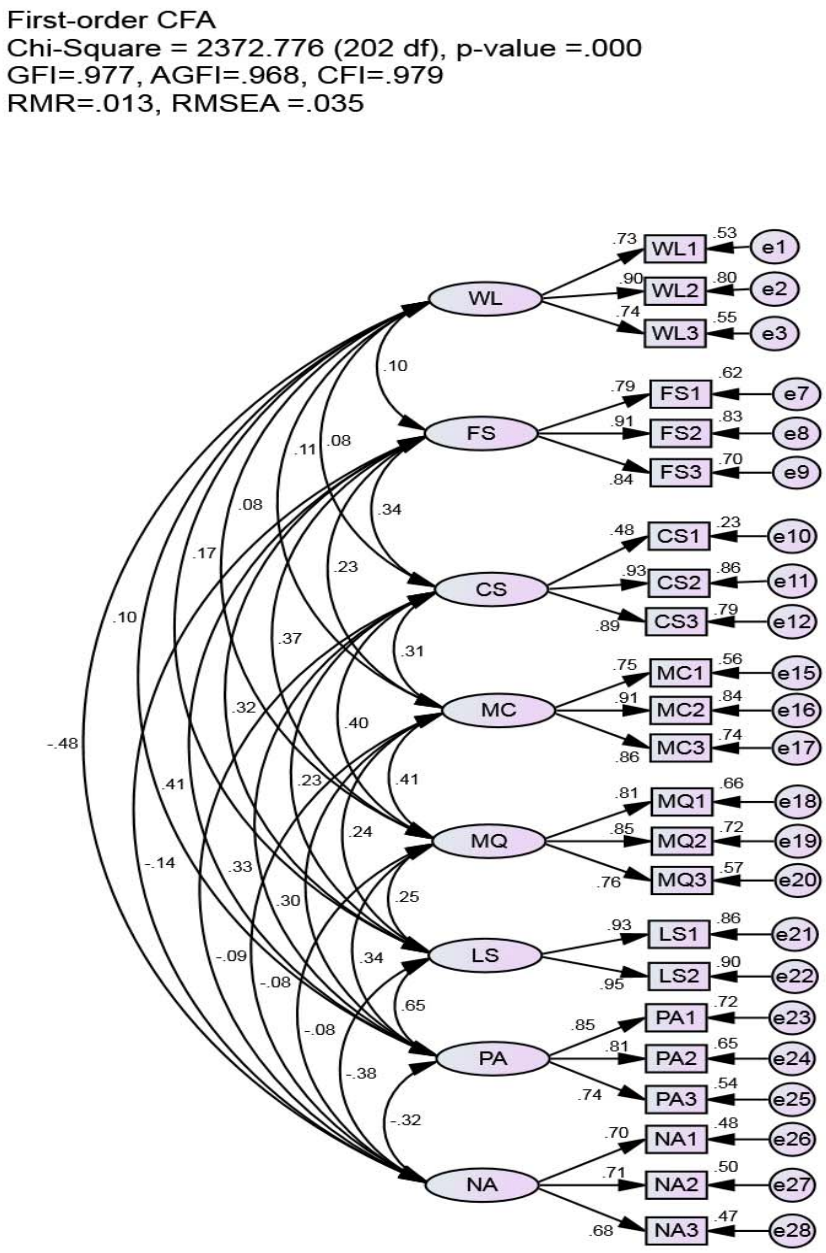

Figure 4.2 First order CFA model of affecting factors and happiness with standardized estimates

Note: Estimates are reported as standardized and the standardized estimates are all statistically significant at the .001 level.

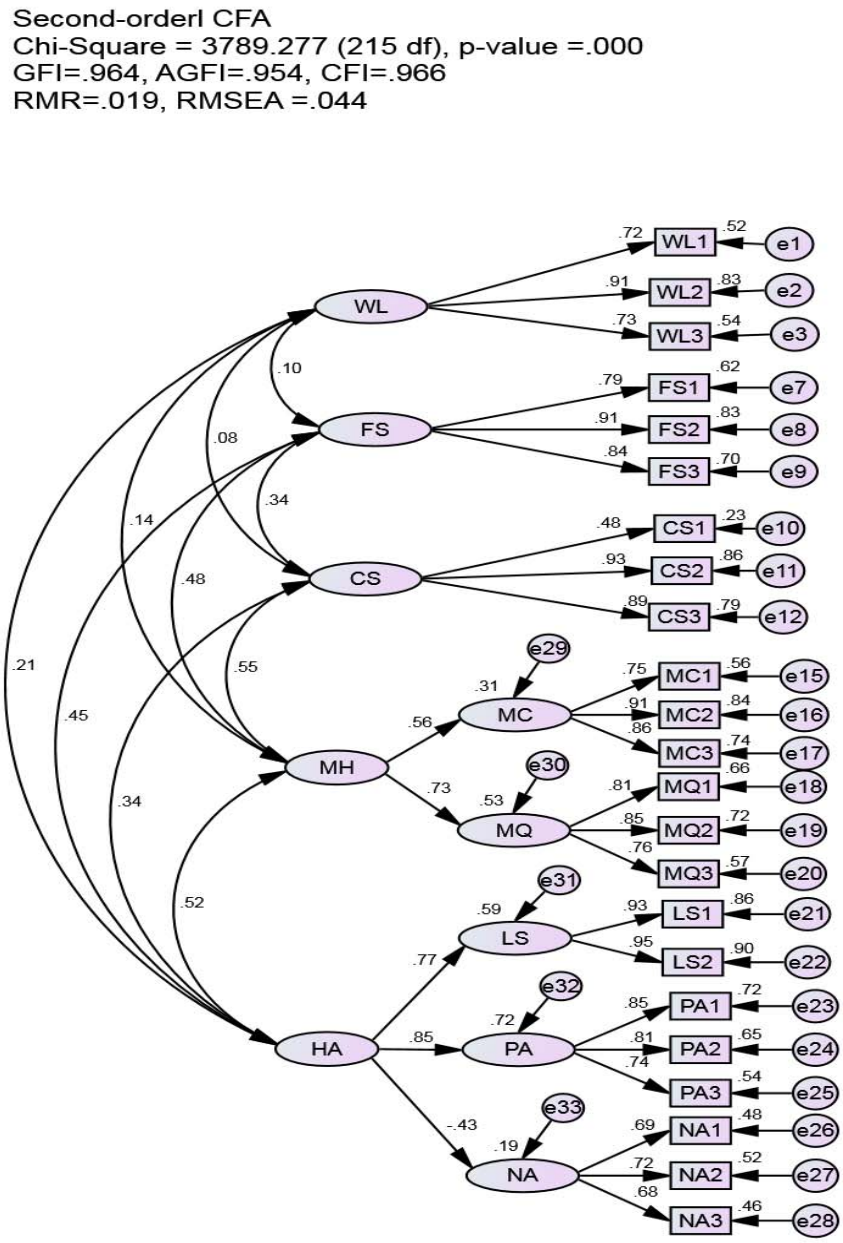

Figure 4.3 Second order CFA model of affecting factors and happiness with standardized estimates

Note: Estimates are reported as standardized and the standardized estimates are all statistically significant at the .001 level.

Table 4.2 Maximum likelihood estimates of factor loadings and residuals for a measurement model of affecting factors and happiness

	Factor loadings			Measurement errors		
Indicator	Un-std.	SE	Std.	Un-std.	SE	Std.
Happiness						
LS	1		0.769	0.491	0.017	0.409
PA	0.420	0.01	0.842	0.051	0.003	0.291
NA	-0.198	0.007	-0.441	0.115	0.004	0.806
Life satisfaction						
LS1	1		0.928	0.146	0.004	0.139
LS2	1.049	0.009	0.949	0.072	0.003	0.099
Positive affect						
PA1	1		0.851	0.067	0.002	0.276
PA2	0.914	0.011	0.807	0.079	0.002	0.349
PA3	0.964	0.013	0.735	0.140	0.003	0.460
Negative affect						
NA1	1		0.692	0.155	0.004	0.521
NA2	0.842	0.018	0.721	0.094	0.002	0.480
NA3	0.867	0.019	0.677	0.127	0.003	0.542
Mental health						
MC	1		0.553	0.146	0.004	0.694
MQ	1.137	0.039	0.733	0.072	0.003	0.463
Mental capacity						
MC1	1		0.747	0.167	0.003	0.442
MC2	1.128	0.014	0.914	0.053	0.002	0.165
MC3	1.077	0.014	0.861	0.085	0.002	0.259
Mental quality						
MQ1	1		0.813	0.08	0.002	0.339
MQ2	1.039	0.013	0.848	0.065	0.002	0.281
MQ3	0.989	0.014	0.758	0.112	0.002	0.425
Work-life balance						
WL1	1		0.739	0.192	0.004	0.454
WL2	1.001	0.015	0.875	0.071	0.003	0.234
WL3	0.929	0.015	0.737	0.167	0.003	0.457
WL4	0.213	0.012	0.214	0.218	0.003	0.954
WL5	0.192	0.012	0.198	0.209	0.003	0.961
WL6	0.146	0.013	0.140	0.246	0.004	0.980
Family satisfaction						
FS1	1		0.788	0.09	0.002	0.379
FS2	1.237	0.014	0.909	0.047	0.002	0.174
FS3	1.129	0.014	0.836	0.081	0.002	0.301
Community satisfaction						
CS1	1		0.508	0.217	0.003	0.742
CS2	1.582	0.032	0.908	0.04	0.001	0.176
CS3	1.546	0.032	0.893	0.046	0.001	0.203
CS4	1.173	0.035	0.435	0.445	0.007	0.811
CS5	1.035	0.032	0.414	0.391	0.006	0.829

Table 4.3 Maximum likelihood estimates of factor variances and covariances and error covariance for a measurement model of affecting factors and happiness

Parameter			Unstandardized	SE	Standardized
Factor variances and covariances					
Work-life balance			0.218	0.006	1.000
Family satisfaction			0.147	0.004	1.000
Community satisfaction			0.068	0.003	1.000
Mental health			0.065	0.003	1.000
Happiness			0.705	0.024	1.000
WL	↔	HA	0.083	0.006	0.212
WL	↔	FS	0.017	0.002	0.095
WL	↔	CS	0.009	0.001	0.077
WL	↔	MH	0.017	0.002	0.143
MH	↔	HA	0.111	0.005	0.520
CS	↔	HA	0.075	0.003	0.342
FS	↔	HA	0.144	0.005	0.446
CS	↔	MH	0.037	0.002	0.551
FS	↔	CS	0.034	0.001	0.336
FS	↔	MH	0.047	0.002	0.481

Table 4.4 Values of selected fit statistics for testing of CFA model & SEM model

Model	χ^2	df	p-value	GFI	AGFI	CFI	RMR	RMSEA
Recommended values				>0.95	>0.95	>0.95	< 0.05	< 0.05
Measurement model								
Initial CFA model	14,514	322	<0.001	0.871	0.837	0.881	0.036	0.072
Dropped 5 variables	2,373	202	<0.001	0.977	0.968	0.979	0.013	0.035
Second order CFA	3,789	215	<0.001	0.964	0.954	0.966	0.019	0.044
Structural regression model								
Initial SEM model	7,741	261	<0.001	0.937	0.922	0.931	0.092	0.058
Built covariance INC ↔ EDU	5,089	261	<0.001	0.956	0.945	0.956	0.033	0.046
Built covariance FS ↔ CS	4,261	260	<0.001	0.963	0.953	0.963	0.029	0.042

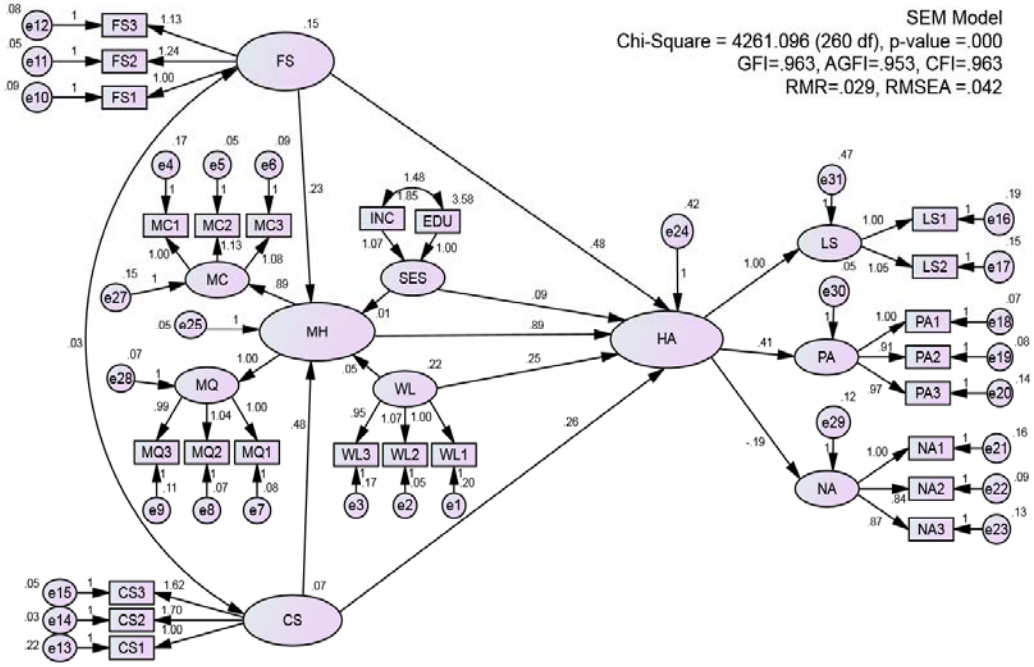

Figure 4.4 SEM model of affecting factors and happiness with unstandardized estimates

Note: Estimates are reported as unstandardized and the unstandardized estimates are all statistically significant at the .001 level.

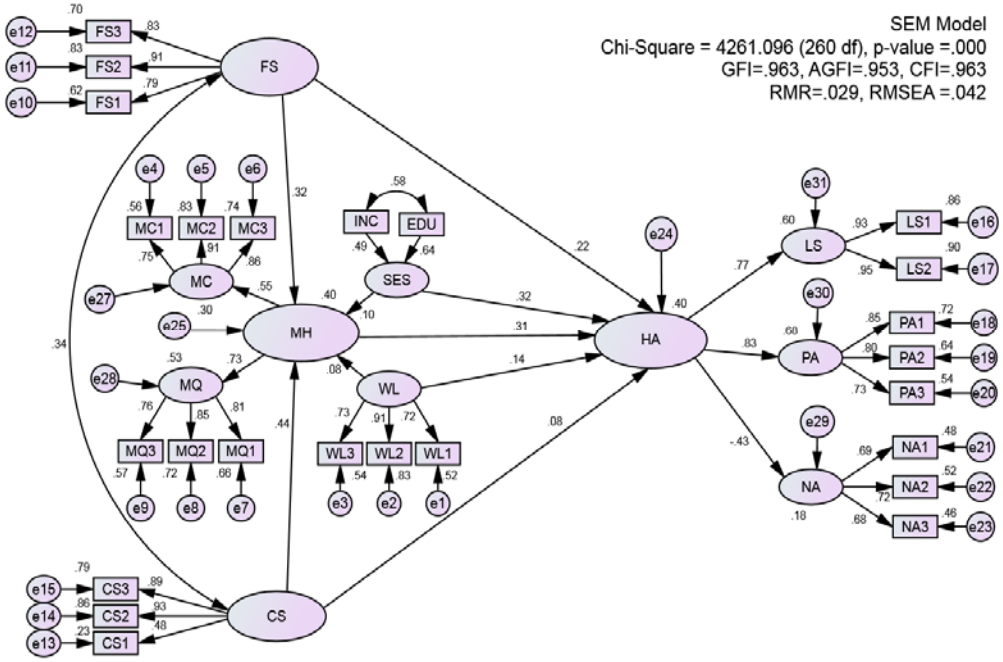

Figure 4.5 SEM model of affecting factors and happiness with standardized estimates

Note: Estimates are reported as standardized and the standardized estimates are all statistically significant at the .001 level.

Table 4.5 Maximum likelihood estimates for the structural component in a structural model of affecting factors and happiness

Parameter			Unstandardized	SE	Standardized
			Direct effects		
EDU	→	SES	1		0.636
INC	→	SES	1.067	0.133	0.488
WL	→	MH	0.049	0.009	0.081
CS	→	MH	0.483	0.02	0.441
FS	→	MH	0.235	0.012	0.316
SES	→	MH	0.010	0.001	0.1
WL	→	HA	0.250	0.023	0.14
SES	→	HA	0.089	0.006	0.319
MH	→	HA	0.895	0.077	0.306
CS	→	HA	0.259	0.054	0.081
FS	→	HA	0.476	0.033	0.22
			Disturbance covariances		
INC	↔	EDU	1.484	0.032	0.577
FS	↔	CS	0.034	0.001	0.336

Table 4.6 Standardized cause effects of affecting factors on happiness and mental health in a structural model

Independent variable		Dependent variable	Cause effect		
			Direct (A)	Indirect (B)	Total (A+B)
SES	→	Happiness	0.319	0.031	0.350
Work-life balance	→	Happiness	0.140	0.025	0.165
Mental health	→	Happiness	0.306	-	0.306
Family satisfaction	→	Happiness	0.220	0.097	0.316
Community satisfaction	→	Happiness	0.081	0.135	0.216
SES	→	Mental health	0.100	-	0.100
Work-life balance	→	Mental health	0.081	-	0.081
Family satisfaction	→	Mental health	0.316	-	0.316
Community satisfaction	→	Mental health	0.441	-	0.441

Table 4.7 Squared multiple correlations of structural model

Parameter	HA	MH	MC	MQ	LS	NA	PA
R^2	0.398	0.405	0.303	0.528	0.596	0.184	0.681

The structural model of happiness could be explained all the effecting factors on happiness 39.8% (R^2 = 0.398). Mental health was a partial mediator between happiness and SES, WL, FS, and CS and could be explained 40.5% (R^2 = 0.405).

4.3 Examination of study hypotheses

The final model was displayed in figure 4.4 for unstandardized estimates and figure 4.5 for standardized estimates. All variables were statistically significant at the .001 level. Structural component estimates was presented in table 4.5 and all causal effects of the structural model was presented in table 4.6 including squared multiple correlation was presented in table 4.7. The following hypotheses were presented the results.

Hypothesis 1: Happiness was second order latent variable which had LS, PA and NA as first order latent variables with factor loading 0.77, 0.83 and -0.43 respectively. The intercorrelations among LS, PA and NA were -0.38 to 0.65 which implied discriminant validity.

Hypothesis 2: Mental health was second order latent variable which had MC and MQ as first order latent variables with factor loading 0.55 and 0.73 respectively. The intercorrelation of MC and MQ was 0.41 which implied discriminant validity.

Hypothesis 3: Mental health was positively significant related to happiness with 0.306 standardized direct path coefficient.

Hypothesis 4: Family satisfaction was positively significant related to happiness with 0.22 standardized direct path coefficient and 0.097 standardized indirect effect through MH which was a partial mediator between FS and HA. The standardized total effect of FS to HA was 0.316.

Hypothesis 5: work-life balance was positively significant related to happiness with 0.14 standardized direct path coefficient and 0.025 standardized indirect effect

through MH which was a partial mediator between WL and HA. The standardized total effect of WL to HA was 0.165.

Hypothesis 6: Community satisfaction was positively significant related to happiness with .018 standardized direct path coefficient and 0.135 standardized indirect effect through MH which was a partial mediator between CS and HA. The standardized total effect of CS to HA was 0.216.

Hypothesis 7: Socio-economic status was positively significant related to happiness with .319 standardized direct path coefficient and 0.031 standardized indirect effect through MH which was a partial mediator between SES and HA. The standardized total effect of SES to HA was 0.35.

In addition model modification, family satisfaction was covariate to community satisfaction with standard covariance 0.343.

4.4 Chapter summary

This chapter presented the findings of the descriptive analysis the Labor Force Survey data of the National Statistic Office of Thailand utilized in the study. All findings were presented. CFA and SEM analyses produced acceptable models for interpretation of the measurement model and structural model. The CFA analysis revealed that most variables were acceptable reflections of their respective factors except some indicators (WL4, WL5, WL6, CS4, and CS5) were dropped from the model. The results of the SEM analysis revealed support for the study's hypotheses.

CHAPTER 5

CONCLUSION AND DISCUSSION, LIMITATIONS, RECOMMENDATIONS, AND IMPLIMENTATIONS

A summary and conclusion of the study are provided, followed by a discussion of the findings, including validity of measurement model, structural model analysis and possible explanations of findings. Finally, limitations, ideas for future research, and implications are examined.

5.1 Summary and conclusion

The main purpose of this study was to examine relationships between happiness and the affecting factors among Thai workforces. Five factors were hypothesized as constructs of affecting factors which were mental health, socioeconomic status, work-life balance, family satisfaction, and community satisfaction. The SEM model was formulated with affecting factors as exogenous variables and happiness as an endogenous variable where mental health was a mediator between socioeconomic status, work-life balance, family satisfaction, and community satisfaction and happiness. Mental health and happiness were second order latent variables where mental health had two sub-constructs as the first order latent variables, mental capacity and mental quality. And happiness had three sub-constructs as the first order latent variables, life satisfaction, positive affect and negative affect.

The research data using in this study were secondary data collected by the National Statistic Office of Thailand as part of the Labor Force Survey which included the Mental Health Survey of August 2014. The measures of happiness and life domains used the Thai Mental Health Indicator developed by

Apichai Mongkol et al. (2009a, 2009b) and work-life balance measures referred to Kalayanee Senasu (2016). The completed data were a total of 8,585 respondents.

The final structural model was tested and the goodness of fit indices of the model were acceptable ($\chi 2$ =4,261, df = 260, p-value = 0.000, GFI = 0.963, AGFI = 0.953, CFI = 0.963, RMR = 0.029 and RMSEA = 0.042).

A total seven hypotheses were tested using SEM. The results showed that all hypotheses were significantly supported. The affecting factors: mental health, socioeconomic status, work-life balance, family satisfaction, and community satisfaction had a positive standardized direct effect to happiness at the coefficients of .306, .319, .14. .22, and .081, respectively and standardized total effect to happiness were .306, .35, .165, .317, and .216, respectively. Mental health was a partial mediator directly from SES, WL, FS and CS to happiness with standardized indirect effect were .031, .025, .097 and .135, respectively. While family satisfaction was positively significantly related to community satisfaction and the standardized covariance was .336. The R^2 of happiness was 0.398 which meaned that 39.8 per cent of variances of affecting factors can be explained by the model.

5.2 Discussion of findings

More than half of the respondents (55%) were in the lower level of income (10,000 Baht per month and lower) making it 82% in total for respondents who earned less than 20,000 Baht per month. To give the reference of the context at time of data collection (2014), the minimum wage was 300 Baht per/day or 9,000 Baht/month for workforce with lower education while the workforce with a bachelor's degree earned around 15,000 Baht/month. Pertaining to the educational level of participants, 37.4% were in the primary school or lower while 75% had less than bachelor's degree. Generally speaking, the findings of this study reflected what respondents with lower income and educational levels answered.

5.2.1 Relationships of mental health and happiness

The findings found that mental health was strongly associated with happiness and was a mediator of all exogenous variables: family satisfaction, community

satisfaction, work-life balance and socioeconomic status. It was supported by Kalyanee Senasu's (2016) study. She found that mental health was the most important element of life domains comparing to mental health, family, community and work satisfaction which helped in predicting happiness of Thai people. Good mental health was positively related to high level of happiness and tended to have lower financial hardship (Elliott, 2014). Mental health also was the mediator between SES and happiness. Canlas (2015) reported that long working hour of working mothers was positively related to mental health but negatively to marital satisfaction and work-family harmony. Long working hour made family happy because they could earn more money to cover family expense.

Diener et al. (1999) argued that coping ability was an individual capacity to manage daily stress regarding the problems of family, work and community relationships. Zheng et al. (2016) argued that coping abilities of employees helped to achieve better well-being than organizational work-life balance program. Moreover, happiness is strongly associated with individual effort to cope their work and life domains' conflict. Adler et al. (1994) argued that lower income and lower education tended to report depressive symptoms comparing to those with higher education and income since they might have more social and psychological resources to cope with stressful events. It can be concluded that such ability is the important element to maintain mental well-being or happiness from daily stress.

The results showed that kindness and altruism, as parts of mental health, were correlated with happiness. The finding is confirmed by the study of Pholphirul (2015) who suggested that people who did the good deeds by donating money and goods had higher happiness.

5.2.2 Relationships of socioeconomic status and happiness

In this study, socioeconomic status had the strongest correlation with happiness at .319 standardized direct effects while educational aspect had higher effect than income. This is because the majority of respondents have lower level of socioeconomic status or in subsistence level. Education was positively related to income and occupational status in Thai society. According to Easterlin et al. (2010), happiness varied directly with income for people with lower income level especially

for those in the subsistence level because money could buy goods and services to fulfill basic needs; hence, increased life satisfaction. Kahneman & Deaton (2010) proposed that average income of American people earned beyond $75,000 per annual, happiness was not related to income. Kahneman & Deaton (2010) proposed that average income of American people earned beyond $75,000 per annual, happiness was not related to income. The results are consistent with Guillen-Royo et al.'s (2013) research that studied low level income in seven communities in the Southern and Northeast regions of Thailand. They found that more income made people happier as they could fulfill their basic needs.

5.2.3 Relationships of family satisfaction & community satisfaction and happiness

This current study also revealed that family satisfaction was significantly related to happiness as it came the second in the total effect. Community satisfaction, on the other hand, was moderately correlated with happiness while mental health was a mediator of both life domains of happiness. The study was partially supported by Senasu and Singhapakdi (2014) who argued that family satisfaction was the most important domain among life domains which were family, health and job satisfaction which helped to predict happiness both present and future happiness. Thai workforces in private sector mostly stay nearby the workplaces or in organizational dormitory. Thus, relationships with co-workers are important factors in happiness evaluation as it assists people in terms of both workplaces and family. In the model modification, we found that family satisfaction was related to community satisfaction. In supporting the results of this study, Kittipichai, Arsa, Jirapongsuwan, and Singhakant (2015) also suggested that co-worker relationships and marital status were strong predictors of quality of life among Thai workforces. Furthermore, this study was consistent with argument of Chaiprasit and Santidhirakul (2011) that co-worker relationships had a positively strong relationship with the quality of life. Similarly, Thanakwang, Ingersoll-Dayton and Soonthorndhada (2012) proposed that family support was positively related to happiness and was indirectly related via social support which referred to friend and close neighbors. Family and community have mutual benefit and shall support each other.

5.2.4 Relationships of work-life balance and happiness

Work-life balance was positively correlated with happiness in the lowest level. This indicated that Thai workforce could be unhappy to work even it was the sources of their income because they might work too hard with low wages and have long working hour. For private companies, especially in small and medium business in Thailand, most of them might have not work-life balance programs to solve conflict between work and life interface. The correlation between work-life balance and mental health was low. This may indicated that Thai workforces had low mental health or lack of coping ability. Perrone et al. (2006) argued that coping ability was a partial mediator between work-family conflict and work-life satisfaction and individuals who were coping well would had higher level of happiness than those who were not perceived enough coping ability. This result is different from the other researches which found that work-life balance was strongly correlated to happiness (Haar et al., 2014; Hoffmann-Burdzińska, & Rutkowska, 2015).

5.3 Limitation

This study used the secondary data which the original purpose may have intension to measure mental health level of workforces only, so the questionnaires contents would serve that purpose. The study cannot modify or add any more measures due to constrain of time and budget.

5.4 Recommendations for further research

The findings of current study reveal the causal relationships of happiness and mental health, family satisfaction, community satisfaction, work-life balance and socioeconomic status. There are some interesting affecting factors to investigate in the relationships to happiness such as religion. Thailand is Buddhism country that Buddhism principle influences to believe, value, culture and daily life of Thai people for long time, however in this modern age the globalization movement invade to whole country via internet and many channels of multimedia with super high speed. It may interest to investigate that how this modern life styles impact to happiness.

5.5 Implication

5.5.1 For policy maker

Thai government realized that income was important for happiness of people in the country. They pursued many measures to solve this problem and can reduce number of population who had income under poverty line from 42% in 2000 to 11% in 2014 (poverty line in 2014 was 2,647 Baht/month/person, Office of the National Economic and Social Development Board, 2016). To this end, the 12th National Economic and Social Development Plan (2017-2021) stated that government will enhance income of people, reduce poverty problems and improve quality of life. To achieve such plan, the government should provide appropriate state welfare to citizen but must not use populism strategy to attract their political votes because previous populism created consequence problems. That is, populism is not sustainable policies to solve the poverty problem.

The results from this study are to support Thai government to reduce the inequality of income and promote philosophy of sufficient economy established by king Rama IX. The philosophy stated that it is more important to teach people to spend money wisely, utilize their own resources and be self-reliant as much as possible because building human capacity to earn high income within a short period is difficult. According to the results, mental health including coping ability, kindness and altruism play the important role to predict happiness. Thus, coping strategies should be put in the education system and should promote morality in the people.

5.5.2 For individuals especially for human resource development professional

Coping abilities are proved to help employees to mitigate daily stress arising from both work and non-work. Education and training of coping strategies should be provided to employee. Organizations should promote kindness and altruism by arranging religious activities or citizenship activities. The salary should be provided at least at the sufficient level for the employees to fulfill their basic needs. Skill training should also be implemented to promote productivity which will lead to earn more

income for employees. All of these measures are confident to lead organizational work-life balance environment and lead to the ultimate goal of happiness.

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