The Relationship between Materialism, Level of individualism and collectivism and Life Satisfaction: A study of Thai undergraduates in International programs

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Abstract

This study aimed to investigate the relationship between materialism, collectivism and individualism in relation to level of life satisfaction among international university students in Thailand. In doing so, data from 92 participants (out of 157) were used. The following measurements were employed: Individualism and Collectivism Scale (INDCOL), Materialism Values Scale (MVS), and Satisfaction with Life Scale (SWLS). Data were analyzed using Pearson's correlation and Multiple Regression Analysis (MRA) via SPSS program. The following hypotheses were investigated: 1) materialism has a negative correlation to life satisfaction; 2) individualism has a positive correlation to life satisfaction; 3) collectivism has a negative correlation to life satisfaction; and lastly 4) materialism, individualism and collectivism, together, will predict life satisfaction. The findings indicated no significant correlations or predictors as hypothesized. However, additional analyses were conducted to examine possible rationales for the insignificant results. In doing so, some interesting patterns of significant findings were identified. Further details can be referred to in the result and discussion section of this paper.

Keywords: Individualism, Collectivism, Materialism, Life Satisfaction, Horizontal Individualism, Horizontal Collectivism, Vertical Individualism, Vertical Collectivism

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Chapter 1

Rationale

In the past, the records of Thai living style has changed vastly compare to the present moment. It was noted that Thai people in the past were able to sufficiently produce the four requisites necessities for living, including planting food, clothing, accommodation and medical care (Visalo, 2009). Although people did not possess large amount of money, it was sufficient for survival, hence money was not an important part of people's lives back in those days. However, as the world became industrialized and capitalism became widespread, the nature of Thai consumerism also changed accordingly. Moreover, unlike in the past when the market only offered essential goods, the number of products available in the market, including unnecessary goods, had also drastically increased in the past decades. Therefore, it is not a surprise that people would desire for more possessions. Since Thai society is a collectivistic culture, face value has an important role in the society member's interaction (Rosenberg, 2004). According to Ting-Toomey (1990 as cited in Rosenberg), face was defined as "the interaction between the degree of threats or considerations one party offers to another party, and the degree of claim for a sense of self-respect (or demand for respect toward one's national image or cultural group) put forth by the other party in a given situation." In an increasingly industrialized society, possession of material goods can reflect one's status and therefore has an impact on one's face value. Although having high face value may be 'valuable' in the collectivistic culture, the interaction of such value and culture, particularly in relation to life satisfaction or well-being, has never been speculated. In response to this, materialism and culture (level of individualism-collectivism) are discussed in relation to life satisfaction in the present study.

Generally materialism is often associated with motivation to consume and desire for consumption of goods (Richins & Dawson, 1992). Contemporary human is described as

having "unlimited hunger for more and more goods" (as cited in Richins & Dawson, 1992, pp. 303). During the post-World War II, consumers were described as "yearn[ing] to acquire and consume," (Richins & Dawson, 1992, pp. 303). Fromm (1967) also mentioned that "contemporary man has an unlimited hunger for more and more goods." (as cited in Richins & Dawson, 1992, pp.303). Some also noted that "materialist worship things" (Bredemeier & Toby, 1960, as cited in Richins & Dawson, 1992, pp.303), which structure their behaviours and orientation in life accordingly. Moreover, materialists also focus on possessions that it precedes friends, religion and other achievements (Srikant, 2013). In addition, materialism is also sometimes described as an orientation towards money and possession for social progress and individual happiness (Wackman, 1971, as cited in Richins & Dawson, 1992).

When speaking of the term materialism, it is sometimes unfavourable and is associated with negativity and reflects something that is inherently bad (Richins & Dawson 1992). People are less satisfied and happy with "life as a whole" as they are more materialistic, including lower satisfaction with family, enjoyment and fun, and standard of living (i.e. material possessions) (Ryan & Dziurawiec, 2001, pp.186). However, although materialism may be speaking of negatively, some research also show the benefits of materialistic lifestyle, such as heightened satisfaction in relation to luxury goods possessions (Hudders & Pandelaere, 2011).

Another factor that has been widely associated with life satisfaction is culture, particularly the levels of individualism-collectivism in individuals. Many studies have identified the relationship between individualism-collectivism and life satisfaction, as studies have indicated both positive and negative relationships between them. Morrison, Tay, and Diener (2010) have mentioned that the level of life satisfaction is highly dependent on levels of financial status of the population. However, some countries with low socioeconomic status were found to be happy as their level of life satisfaction is associated with personal

satisfaction with their culture rather than financial status (Morrison, Tay, and Diener). Individualism-collectivism plays an important role of determining an overall life satisfaction as each culture supports their individuals differently. Furthermore, a study by Yatim (2002) on Turkish sample shows good representation of mixture of two cultures. He found that self-esteem and mastery have a positive influence on life satisfaction and subjective well-being in individualistic culture but not in the collectivistic culture. Hence, there are still some underlying gaps to further-investigate in different population about the effect of level of individualism-collectivism on the level of life satisfaction.

As Thailand is a developing capitalistic country, there is a greater emphasis in acquisition of material goods in order to stimulate the nation's economy (Visalo, 2009). Since Thailand is a collectivistic culture, such an emphasis can become social norm which can affect individual's desire to live up to this norm that in turn can lead them to become more materialistic. As discussed earlier, materialism can affect life satisfaction; hence, we, the researchers speculated the possibility of relationship between the three factors, namely materialism, levels of individualism-collectivism and life satisfaction. Specifically, we proposed four following hypotheses. First, we predict that there would be a negative relationship between materialism and life satisfaction. Second, we predict a relationship between individualism and life satisfaction. Third, we also predict a relationship between collectivism and life satisfaction. Finally, we hypothesized that materialism and level of individualism-collectivism can predict life satisfaction.

Literature Review

The literature review below discussed three major factors of interest in the present study: materialism, level of individualism-collectivism and life satisfaction. Each factor will be discussed in detail under its headings.

Materialism

      Definition. As there have been various descriptions associated with the term "materialism", such as lifestyle, state, belief, attitude, and value, for the purpose of this study researchers have decided to follow the definition of materialism as proposed by Richins and Dawson (1992). They described possession and acquisition of objects to be materialists' personal values and goals that "dictate ways of life" (pp.307). This was further elaborated as "consumers who place material possessions and acquisition at the centre of their lives, value possessions as a means of achieving happiness, or use possessions as indicators of success and status." (Duh, Struwig & Mazibuko, 2011, pp. 38).

      Theoretical background of materialism. To understand the causes and consequences of materialism, various aspects especially in terms of psychological well-being, a few theories have been developed to explain this. These mainly include "self-determination theory" by Ryan and Deci (2000); "human need theory" by Maslow (1943); the "symbolic self-completion theory" by Wicklund and Gollwitzer (1982); and "the life course theory" by Moschis (2007) (as cited in Duh, Struwig & Mazibuko, 2011, pp. 32). The first three theories posited that when human needs are unsatisfied or deficient, either psychologically or physiologically, a person will find ways to compensate those deprivations. This often involves more orientation toward materials in order to satisfy their lower order needs for comfort and safety, instead of higher order needs such as life quality or belongingness (Duh, Struwig & Mazibuko, 2011). In addition, researcher has also found a relationship between both esteem and safety needs with attitudes towards money (Oleson, 2004, as cited in Duh, Struwig & Mazibuko, 2011). This is because people perceive money as a tool to gain more material goods and power, hence leading to more engagement in consumption (Duh, Struwig & Mazibuko, 2011).

According to the self-determination theory, later development of a child and the values they adhere to is essentially determined by the extent to how their psychological needs (such as emotional support, esteem, sense of belonging and love) and growth (such as shelter and food) are satisfied (Duh, Struwig & Mazibuko, 2011). For example, growing up in an environment that may limit or frustrated their psychological needs may lead to concern about self-worth and vulnerable in how they are perceived in the eyes of others (Kasser, Koestner and Lekes, 2002, as cited in Duh, Struwig & Mazibuko, 2011). When this happens, money and materials could become something that is highly value by the individual as a tool for self-transformation, self-extension, self-definition, self-esteem and power when interact with others (Duh, Struwig & Mazibuko, 2011).

Not only just self-determination theory, materialism can be explained by motivation therapy. The human need theory by Maslow (1943) described humans as creatures that continuously contain "unfulfilled need" (Duh, Struwig & Mazibuko, 2011, pp.33). These needs were divided into five components and once the lowest level of needs are satisfied, an individual can engage in satisfying other level of needs such as safety and security needs, loving and belonging, esteem needs and self-actualization needs (the highest level in the human need theory) (Duh, Struwig & Mazibuko). This theory is beneficial in helping us to understand how people's motivation operates, which in turn can lead to a better understanding of materialism. This was further studied by Iglehart (1971 and 1990) who proposed that materialistic values are by-products of societal failure in satisfying people's security and physiological needs (as cited in Duh, Struwig & Mazibuko, 2011). Hence, leaving people to focus on satisfying lower level needs (i.e. need for material comfort) than higher level needs.

The symbolic self-completion theory by Wicklund and Gollwitzer's (1982), also place an emphasis in terms of satisfaction of psychological needs and its link with orientation

toward materialism. The theory proposed that materialism stemmed from discrepancies between how a person views themselves (actual self) and how they ideally want to be (ideal self). This is further explained by Dittmar et al. (1996) who created a model of impulse buying using personality and social to represent factors that influences one's self-discrepancies. For example, factors such as gender, social class, age group (social factor) and personality has an impact on how people judge their self-worth and self-definition. The self-completion theory then proposed that these discrepancies are compensated through possessions of symbolic materials (i.e. apparel items). The life course theory then helps to further explain how deprived human needs have an impact on one's life at later stages. This theory integrates various theoretical frameworks (such as those use in studying history, sociology, economics and developmental psychology) to gain understanding in consumer behaviour across their lives. While the above mentioned theories gives insight into possible factors that influences peoples' experiences, this theory allow us to understand how the timing of the events has an impact on one's life. This is by emphasizing the importance of recognizing the interaction between the timing of the events, place, or intensity of the experience to other stressful events, and the way it impacts a person's attitude towards materials and money (Duh, Struwig & Mazibuko, 2011). Three theoretical components of this framework include the normative-, stress-, and human capital perspective. The first perspective see certain events (i.e. divorce) as a cause for people to transit from one role to another (i.e. spouse) in the life course. Secondly, the stress perspective suggests that at any given point in life people can become more or less susceptible to the occurrence of events. These events are called 'stressors' and they can be positive, negative or neutral, and may be in the past or present. A way to cope with this stressful transition is often motivated by mechanism such as materialism. Lastly, a persons' qualifications, resources, skills, and knowledge accumulation throughout life is referred to as human capital. This human capital

perspective seek to identify sources of life events that bring about changes in growth or decline of a person that in turns influences ones' thoughts and behaviours. For example, parental divorce results to lower financial resources, which in turns negatively affects the child's ability to accumulate human capital (such as education and other life opportunity such as wealth and status) (Duh, Struwig & Mazibuko, 2011). By understanding the interaction between basic needs deficiency and disadvantages that occur throughout one's life course (including the sensitive and critical period, the duration and intensity of the events and experiences) and its impact on a person's psychological outcomes, enable us to gain more understanding of the root of materialism and consumption orientations.

In light of the evolutionary perspective materialism is actually adaptive as it is universal traits that imply enhance status (Srikant, 2013). Moreover, it is also noted that striving for social status and wealth is within our genes, and it is essential that we maintain it. In addition, civilization and growth is also brought about by material consumption, which can also result to happier lives. Some also described materialism as something that is "innate and good" (Srikant, 2013, pp.333), such that mankind are governed under "pain and pleasure", and possessing material goods that help one to attain pleasure as described in the Hedonism theory (Srikant, 2013).

Components of materialism. Three main values of materialism that are emphasized by Richins and Dawson (1992) include the "acquisition centrality, acquisition as the pursuit of happiness, and possession-defined success" (Richins & Dawson, 1992, pp. 303). The first component refers to when acquisition and possessions become the center of peoples' lives, such that high consumption of material is act as a goal and provides a meaning to life (Richins & Dawson, 1992).

This then leads to the second component, which define possessions and acquisition of materials as an essential factor to life-satisfaction and well-being of a person. As noted by

Belk (1984), when materialism is at its highest levels, it is believed to be "the greatest sources of satisfaction and dissatisfaction" (as cited in Richins & Dawson, 1992, pp.304). This is elaborated more specifically that happiness and satisfaction is acquired through acquisition not via other means, such as experiences, achievements, or personal relationships (Richins & Dawson, 1992).

The last component described that success of a person, whether it is their own or others', is judged by the quantity and quality of accumulated possessions. For example, as noted in Heilbroner (1956), it is the monetary value of the possessions not the satisfaction it yields (as cited in Richins & Dawson, 1992). By doing so, materialists rely on these possess products to define their sense of success and to project a perfect picture of their desired life (Campbell, 1987, as cited in Richins & Dawson, 1992).

Relationship between materialism and life satisfaction. As mentioned earlier, prevalent evidences show a link between materialism and life satisfaction. Research by Ryan & Dziurawiec (2001, pp. 186) also found that people are less satisfied and happy with their "life as a whole" as they become more materialistic. These include lower levels of satisfaction with family life, enjoyment and fun in life, and standard of living (i.e. material possessions) (Ryan & Dziurawiec, 2001). Furthermore, research by Kasser and colleagues (2013) provided empirical data to show lowered outcomes of happiness, life–satisfaction, self-actualization, vitality and higher depression score as people place more importance on goals toward money and possessions. Another longitudinal experiment across one year also showed no increase well-being benefits although attainment of extrinsic goals (such as popularity and image, on top of possessions and money) increased, hence such goals were not shown to contribute to enhance satisfaction of one's psychological needs (Niemiec et al., 2009, as cited in Kasser et al., 2013). On the other hand, some literature showed benefits of materialistic lifestyle. According to Hudders & Pandelaere (2011), consumption of luxury

goods increase life satisfaction, enhances mood positivity and reduce mood negativity.

However, these benefits are shown to be more pronounced in consumers who are more

materialistic than those who are less materialistic, at least temporarily (Hudders &

Pandelaere, 2011). Therefore, engaging in multiple short-term rewards can reinforce

materialism in consumers to continue this lifestyle.

Table 1

Comparison of Materialism Measures

Study	Subjects	How measured	Reliability
Inglehart (1981)	Adults in Europe and the United States	Materialist and postmaterialist goals; 12 goals ranked by importance: "maintain a stable economy," "try to make our cities and countryside more beautiful"	Unreported
Belk (1984)	College students, adults	Personality traits of envy, nongenerosity, and possessiveness; 24 Likert scale items: "I am entire .48-73 bothered when I see people who buy anything they want," "I don't like to lend things, even to good friends," "I tend to hang on to things I should probably throw out"	Subscales .09-.81; entire .48-.73
Richins (2004)	Adults	Materialism; six items, three subscales, Likert scale format: "It is important to me to have really nice things"	.80, .81

Note: Revised from Richins and Dawson (1992); Richins (2004)

Materialism scale. There have been various attempts to measure materialism, which

mostly takes place at individual level. A few scales have been developed in order to gain

insight and understanding of materialism and how it affects different components of well-

being. The scale by Belk (1985) has been one of the widely used tools which assumes that

materialism is a function of personality traits (possessiveness, envy, preservation and

nongenerosity) of a person (as cited in Srikant, 2013). However, the scale was critique for its priori negative connotation of the concept of materialism as the traits involved are mostly negative, hence might yield confounding results (Srikant, 2013). Moreover, its reliability and validity has been poor (coefficient alpha ranged from .66 to .73 in the entire scale) as shown in Table 1. In addition, the scale was for its reliability and validity by Cole et al. (1992), however the researchers failed to replicate so and reported coefficient alpha for the entire scale of .54. This is consistent with the result of Richins and Dawson (1992) who reported coefficient alpha with median of .54, ranging from .09 to .81 for the entire scale.

Another well-known measurement was developed by Inglehart (1981), who based the measure on the theory of socialization which assumes that public value and priorities gradually changes as industrial societies advances (Richins & Dawson, 1992). Although the development of this scale showed relationships between those concepts of Richins and Dawson (1992) and Belk (1985), the scale was criticize for its broad definition and does not measure materialism at individual level but at a societal level instead (Richins & Dawson, 1992). The measure was also criticized for its inability to directly measure individual differences on different components of materialism and its values.

Level of individualism-collectivism

Definition. The idea of characterizing culture into two aspects emerges from the development of many countries, including those that are already developed and still developing. In any culture, there would be individuals who are more or less allocentric or idiocentric, which refers to whether they attribute 'self' towards themselves or culture externally (Triandis, 1994). The terms 'idiocentric' and 'allocentric' arise from the concept of the degrees of individualism-collectivism in an individual. Allocentrics are those who value in-group decisions more than their own (collectivism), whereas idiocentrics (individualism) are those who foster the needs, wishes, and desires of individuals rather than groups

(Matsumoto & Kupperbusch, 2001). These individuals' attributions are shaped variably by cultural differences that involve many psychological domains such as cognitive processes, emotions, subjective and psychological well-being (Chen & West, 2008). Such cultural differences are referred to as individualism and collectivism that are embedded in each country through their history or lifestyle.

Individualistic culture refers to the culture that individuals tend to be emotionally independent and autonomous towards themselves and society (Triandis, 1991). This culture emphasizes on privacy security, self-consciousness, and uniqueness, as they tended to refer themselves (when speaking or making opinions) as "I" (Chen & West, 2008). Individualists are self-centered and competitive rather than co-operative, resulting in low loyalty towards work organizations (Hofstede, 1980). They are often fostered to achieve their personal goals as opposed to group's goal. Psychologists often view individualism as a Western ideology which emphasizes on self-confidence and less emphasis on harmony maintenance in public and public consideration (Triandis & Singelis, 1998). Conversely, the collectivistic culture refers to the individuals who are similar-oriented, highly dependent on the norms, and mostly view themselves as a collective rather than individuals (Noordin & Jusoff, 2010). Collectives consist of individuals who are bound together through a common set of values and norms through emotional predisposition, social practices, family teachings (Etzioni, 1968). For collectivistic people, every action should be attributed as a group and the sense of uniqueness should be suppressed as they are considered to be unconventional. In other words, they mostly refer to themselves as "We" and their contribution is rarely based on individual benefits. Brewer and Chen (2007) propose that when individuals are put into a large social group with salient identity, they tended highly identify themselves as a collective. In other words, they would imply collectivism or in-group identification when exposed to the out-groups.

Components of individualism-collectivism. Individualism-collectivism can be broken down into four facets in accordance to the extent to which individual perceive equality, i.e., some may be happy to find themselves having unequal rights from others, whereas some may not be (Sivadas, Bruvold, & Nelson, 2008)..

Vertical individualism. This includes the outset of an autonomous individual and inequalities, and that they would accept unequal financial status and distinctive competition (Triandis & Singelis, 1998). As mentioned by Rhee, Uleman, Lee, and Roman (1995), vertical individualistic individuals focus primarily on the outcome of the task by intervention of their own ideas such that they are highly self-centered and do not cherish any conservative act. In addition, they also emphasize only on personal goals and preferences, which sometimes lead to unethical issues, such as purposely injuring the opponents to achieve one's goal, as they place little value on human relationships (Markus & Kitayama, 1991). The US and Australia are among the leading vertical individualistic countries.

Horizontal individualism. This idea conceptualized the act of equality in the culture as it could benefit the country in various aspects (Triandis & Gelfland, 1998). Denmark is a good example for displaying horizontal individualistic culture, as it is considered inappropriate for their people to stand against their in-groups in order to achieve authority and higher social status (Sivadas, Bruvold, & Nelson, 2008). Triandis (1995) proposes that this aspect of individualism is very close to that of collectivism as the conservative individualists do undertake some of the collectivistic traits. It could be plausible that social relationship maintenance is still one of the major moralities that horizontal individualists would follow. A horizontal individual perceived their individuation as part of a group, but within an individualistic culture such that one could be unique in own way if it does not contribute to hierarchical achievement.

Vertical collectivism. This construct refers to the groups of allocentrics who are willing to undergo inequality in order to keep the status quo and represent themselves as an in-group by following their norms strictly (Triandis & Gelfland, 1998). Idiocentrics in this culture tended to comply with the norm despite their disagreement with it. Thus causing them to be ambivalent as their behaviour may be compliant, but their personal and cognitive components are against the norms. India would be a good representative for a vertical collectivistic country, as the individuals are willing to accept in-group norms of caste system even though they would be allocated in peasant class and not treated fairly as they are supposed to be (Triandis et al., 1988).

Horizontal collectivism. A collectivistic culture that individuals tend to follow the characteristics of the in-groups while still value justice and equality among themselves (Triandis & Gelfland, 1998). In other words, the individuals are independent and also put high emphasis on other's thoughts as for the benefit of their group cohesion and harmonious relationship between the in-groups (Nusatarin, 2010). China, as an example of vertical collectivistic country, maintained the traditional and religious practices such as Buddhism and Taoism, in order to focus not only on the equality but also the group responsibility and competition (Sivadas, Bruvold, & Nelson, 2008).

Quite a number of theories have been assessed to find the cutoff between the lines of horizontal/vertical individualism-collectivism. Nelson and Shavitt (2002) suggested that the extent of social solidarity and poverty in a particular country as well as their perception of equality/inequality can determine its level of individualism-collectivism. However, the idea of collectivism could also be explained by theory of social identity, where individuals may be induced to be subordinates to follow their personal goals or even to fit in with the social categories they grew up with (Triandis et al., 1988). Cultural orientation took place during the critical period of each individual's life. This process influenced individual's value priorities

as they continuously adhered to their cultural values, social beliefs, and personal goals (Schwartz & Sagiv, 1995). Furthermore, the concept of self also largely determined whether that individual should belong to collectivistic or individualistic culture. As individual has both independent and interdependent self within them, the extent to which they choose to display one trait over the other will affect their interaction with their respective culture (Nusatarin, 2010).

Related literature of the level of individualism-collectivism and life satisfaction level. Diener and Diener (1995), Diener and Suh (1999), Hofstede (1991), and many other researchers have found that in a mixed orientation culture such as Turkey, collectivistic people tend to be less satisfied with their lives when compared to the individualists, as they report lower self-esteem and social skills. However, the reason may be that the participants coming from rural areas to the city, as they conducted their study at the capital areas of the country. Furthermore, those individualistic people in their study are raised in developed countries and brought up modern and urbanized lifestyles that lead to higher self-esteem and life satisfaction. Although it was claimed earlier that individualists show higher level of individualism, Kim and Cho (2011) discover from their Korean samples (collectivistic culture) are very satisfied in being collectivistic. However, the country still has the highest suicidal rate which can be attributed to low job satisfaction. Such findings showed that life satisfaction may not be directly related to individualism or collectivism, but may be indirectly affected by it through other cultural processes.

In addition, a study by Oishi (2000) focused more on the sense of "self" in the context of the two different cultures. He revealed that the nature of "good feelings" does depend on the construction of self in each culture. For instance, the sense of good feelings for the Americans is to take pride and achieve personal goals, whereas it is rather the involvement of harmonious relationship between friends and fulfillment of obligations for the Japanese

(Markus & Kitayama, 1993). Individuals from different cultures qualify to their level of life satisfaction differently as dependent on their individual goals. People from individualist culture would have high level of life satisfaction when they become independent from their parents and therefore they would struggle to be so. However, people from collectivist culture would be happy to find themselves congruent with the social norms as they learn that good cooperation with group members would make them successful and thus bring happiness in life. Therefore, the role of cultural values plays an important part in determining whether an individual in each culture would identify himself or herself with high or low level of life satisfaction.

Life satisfaction

      Definition. Diener (2002) developed his notion of happiness or famously coiled as 'subjective well-being' based on Shin and Johnson's definition of well-being. According to Diener, subjective well-being is 'people's evaluation of their lives—evaluations that are both affective and cognitive' (p. 34). It was in this definition of well-being that life satisfaction was properly recognized and identified as a key element of subjective well-being. Specifically, life satisfaction was identified as the 'cognitive and judgmental' part of one's evaluation about their life (Pavot & Diener, 2008, p. 71). Essentially, the higher life satisfaction one has, the closer their overall life experience is to their ideal standard of life experience; and the lower life satisfaction one has, the farther away one's current life experience is to their expectations. Although this definition of life satisfaction appeared vaguely broad, such broadness is actually the beauty and core strength of this given definition. As there are a great variation of ideals, expectations, values and goals between individuals when it comes to life, being unspecific when assessing life satisfaction would allow researchers to better capture the concept than when being specific. Furthermore, this definition is implemented in Diener's and colleagues' (1985) *Satisfaction with Life Scale*

[SWLS] which can be and has been widely used across the world of research (Pavot, Diener, Colvin & Sandvik, 1991; Vassar, 2008). It is for such rationales that we, the researchers, decided to assume Diener's definition of life satisfaction in this particular study.

   The origin of life satisfaction. As one of the three components of subjective well-being or happiness (Pavot & Diener, 2008), life satisfaction is one of the most discussed terms as the abundance of the researches on the topic continue to increase. Despite being a well-recognized term in the current field of well-being, life satisfaction has not always been acknowledged, much less being recognized for its importance. At the early stage of well-being research, much of the effort was put into analyzing the affective components, including both positive and negative affect. *The Structure of Well-being,* a classic study by Bradburn in 1969, for example, proposed two separable aspects of happiness or psychological well-being to be positive affect and negative affect. In his model of psychological well-being, people are 'happy' or in his words "high in well-being" when the amount of positive affect triumphs over the amount of negative affect and there is an excessive amount of negative affect over the positive ones the person becomes 'unhappy' or "low in well-being" (p.9). Using this definition of well-being, Bradburn conducted several researches regarding well-being which included the assessment of life satisfaction (for example, *Indicators of Life Satisfaction, by Communities, for Waves I and III*). Nevertheless, as it can be reflected through his model, not much acknowledgment was given to life satisfaction in his early attempts to formulate the structure of well-being. However, not long after Bradburn, Shin and Johnson (1978) put an effort into redefining the concept of happiness as they believed that the notion of happiness was misleadingly associated with positive and negative affect in the previous research. In the attempt to systematically redefined happiness, they identified three major ways the term 'happiness' was used. The first way was to refer to a brief sense of happiness which can be a physical gratification or an emotional state. This particular use of the term is associated with

pleasure and absence of suffering. Secondly, the term can be used to refer to a state of contentment in the sense that one does not necessarily have to have a certain feeling about a certain thing but to just be simply satisfied. Third use of the term concerns the process of evaluation and making a judgment about one's total value of life experience. In contrast to the second use of the term, the third use focused more on the nature of the overall experience instead of declaring a statement about one's being. To this end, Shin and Johnson rationalized that the third use of the term 'happiness' best captured the essence of life experience as a whole as it encompasses the concept of 'human needs, desires, interests, tastes and demands and seeks to determine whether they constitute a harmonious whole' (p. 477). Empirical data also supported such conclusion as studies that employed affective scales were often found to have small variance when explaining happiness (eg. Bradburn, 1969). Therefore, this led them to redefine the term happiness or well-being as "a global assessment of a person's quality of life according to his own chosen criteria" (p. 478). In other words, happiness is a personal judgment that relied on one's appraisal of their current experience in relation to their personal desired standard of experience. Appreciating this given definition, Diener (1984 as cited in Diener, Emmons, Larsen & Griffin, 1985) acknowledged the definition as an indication of the subjective well-being era as it valued personal judgment over external principles imposed by the researchers. It was from this point onward that the study of life satisfaction flourished alongside with subjective well-being.

Sources of life satisfaction. After decades of studies and debates, Diener and his colleague (2008) have concluded that life satisfaction judgment was mainly based on "chronically accessible information" (p. 138); that is people consistently depend on identical source of information to make their life satisfaction judgment. Supporting this assumption, factor analysis of Satisfaction with Life scale [SWLS] derived a solitary factor that accounted for 66% of life satisfaction.

One probable resource of "chronically accessible information" that has been repeatedly found to be related to subjective well-being and life satisfaction is personality trait, particularly their temperament (Pavot & Diener, 2008; Schimmack, Oishi, Furr & Funder, 2004; Diener & Lucas, 1999). Specifically, extroversion and neuroticism were found to have an especially strong predictive power in life satisfaction (Diener & Lucas, 1999; Schimmack, Diener, & Oishi, 2002; Schimmack, Oishi, Furr & Funder, 2004). Moreover, Schimmack and colleagues (2004) further investigated into the facets of extroversion and neuroticism and found that the depressive aspect of neuroticism and the cheery aspect of extroversion were specifically related to life satisfaction. For instance, depression was found to be a stronger predictor of life satisfaction than anxiety or resentment (in neuroticism) while having a cheerful nature also predicted life satisfaction better than the active or sociable aspect of extroversion. A simple explanation for such relationships lied on the mechanism of these two personality traits, extroversion and neuroticism, such that extroversion tended to be associated with positive emotions and that neuroticism tended to be associated with negative emotions (Costa & McCrae, 1980). Consequently, people with high extroversion personality are prone to experience pleasure more often and possibly more strongly than neurotic individuals whereas people with high neuroticism personality would most likely experience stress and undesirable feelings more frequently and possibly more strongly than extroverted people. Supporting this explanation is the finding that life satisfaction is affected by personality traits because personality traits affect people's global mood which in turn affect the evaluation of life satisfaction (Schimmack, Diener, & Oishi, 2002). Another plausible explanation derived from *instrumental hypothesis* which stated that personality can be reflected through choices and situations in which individuals put themselves in. These choices and situational contexts, in turn, affect individuals' level of life satisfaction (McCrae & Costa, 1991, p. 231). For instance, extroverted people are likely to seek for sociable and

active activities which nurture their extroverted congruent values and accomplishment that consequently affect their emotions as well as their satisfaction with life.

Another resource of "chronically accessible information" is *levels of domain specific life satisfaction* (Pavot & Diener, 2008, p. 138). Although personality traits played an important role in determining life satisfaction or subjective well-being, situational contexts such as personal life environment and experiences can modulate the impact personality have on individuals (Stubbe, Posthuma, Boomsma, & De Geus, 2005 as cited in Pavot & Diener, 2008). Unlike global life satisfaction, domain specific life satisfaction refers to an individual's evaluation of satisfaction in regard to a particular facet of their life (Pavot & Diener, 2008). There are a great number of studies showing that global life satisfaction and domain life satisfaction are distinct constructs (Singley, 2005). Specific domains in life that were found to be related to life satisfaction included work, leisure activities, neighborhood, family life, marriage and competence (Campbell, Converse & Rodgers, 1976 as cited in Lewinshon, Redner & Seeley, 1991). These reported domains were also found to be correlated to one another as well as to global life satisfaction. Thus, despite being a separable construct, reflecting that both global life satisfaction and domain life satisfaction are significant on its own, the fact that they correlated with one another showed that domain life satisfaction do make up global life satisfaction to a certain extent (Lewinshon, Redner & Seeley, 1991). Supporting this insight, a correlation of job satisfaction and life satisfaction was consistently yield by past studies (Tait et al., 1989 as cited in Singley, 2005; Myers & Cairo, 1992 as cited in Singley, 2005). Furthermore, correlations of various domain specific satisfaction and global life satisfaction were found to range from .32 to .46 (Schwarz et al., 1991 as cited in Singley, 2005).

The study of life satisfaction in Asia. Although early studies of life satisfaction were heavily researched in the western countries, much attention has been shed to cross-cultural

research in the recent decade. Inconsistent with several previous Western studies (Oishi, Diener, Lucas & Suh, 1999; Edwards & Klemmack, 1973), income was not found to be the most important determinant of life satisfaction in Asia (Noo, Tay,& Tan, 2014). Ranking at the 4th or 5th for its importance (depending on the region), income definitely had a stronger impact among the low income groups than for the middle to high income groups. Instead, government and quality of living was found to be better predictors of life satisfaction in Asia, ranking at 2nd or 3rd across the regions in the research. A possible explanation for such a different finding from the Western studies may be due to the assessment of quality of life and government in this particular study. Quality of life could also involve income consideration but is not limited to just income. Public and communal facilities and policies would also be considered within one's quality of life; and because government has a direct impact on the facilities and policy making, the two factors ranked in a similar manner. In contrast to the Western culture, education was found to be another significant life satisfaction determinant in Asia. Unsurprisingly, better education would lead to better job opportunities which in turn would lead to better income as well as standard of living. The number one determinant of life satisfaction in Asia, however, is marital status. Not only does marital status contribute to better satisfaction with life, it also is associated with better health. Since family is considered an important foundation in Asian culture, the implication of marriage and family was extensively stronger in Asia than in the West. Consistent with this finding, harmonious relationships was a significant indicator of life satisfaction in collectivistic culture (Hongkong) than in individualistic culture (United States) (Kwan, Bond & Singelis, 1997 as cited in Oishi, Diener, Lucas & Suh, 1999).

Accordingly, from the review mentioned above, understanding the three factors, namely materialism, level of individualism-collectivism and life satisfaction, and how they interact can help us predict the effect each factor may have on the other factor as well as the

overall impact they may have on people's well-being. Such knowledge could have a wide range of implication ranging from our everyday lives decision to national policy making.

      Life satisfaction scale. Life satisfaction was among the most common research survey back in the 1960s (Veenhoven, 1996). As the assessments were becoming more and more prevalent, its validity and reliability also became highly scrutinized. The lack of clarity regarding its underlying process was also of little help to defend the assessments. Additionally, majority of life satisfaction assessment at the time included only a single item explicitly inquiring individuals of their satisfaction within the framework of the given questionnaire. Although multiple items assessments of life satisfaction do exist, they were specially designed for specific population such as *Life satisfaction Index* (which also included affective items) or *Philadelphia Geriatric Center Morale Scale* which are designed to be used with elderly individuals (Diener, Emmons, Larsen & Griffin, 1985) or Student's Life Satisfaction Scale [SLSS] which is designed to be used among students with an age range of 8 – 18 (Huebner, Suldo & Valosis, 2003). Table 3 compares the capabilities between each scale, emphasizing usefulness of SWLS as a life satisfaction measurement which will be discussed later in the measurement section.

Table 2

Comparison of Life Satisfaction Measures

Study	Subjects	How measured	Reliability
Diener, Emmons, Larsen & Griffin, (1985)	Undergraduates students	Rate their agreements with positively worded life satisfaction statements on a 7-point Likert scale	.87
Lawton (1975)	Elderly only	Measured three following subscales: Agitation (6 items), Attitude Toward Own Aging (5 items), and Lonely Dissatisfaction (6 items).	Subscales: .85, .81, .85 respectively
Huebner, Suldo & Valosis (2003)	Students and adolecents age ranging from 8 - 18	Students' Life Satisfaction Scale (Huebner, 1991) is a 7-item measure of global life satisfaction.	.70 - .80

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Research objective

To study relationships between materialism, levels of individualism and collectivism and life satisfaction.

Research framework
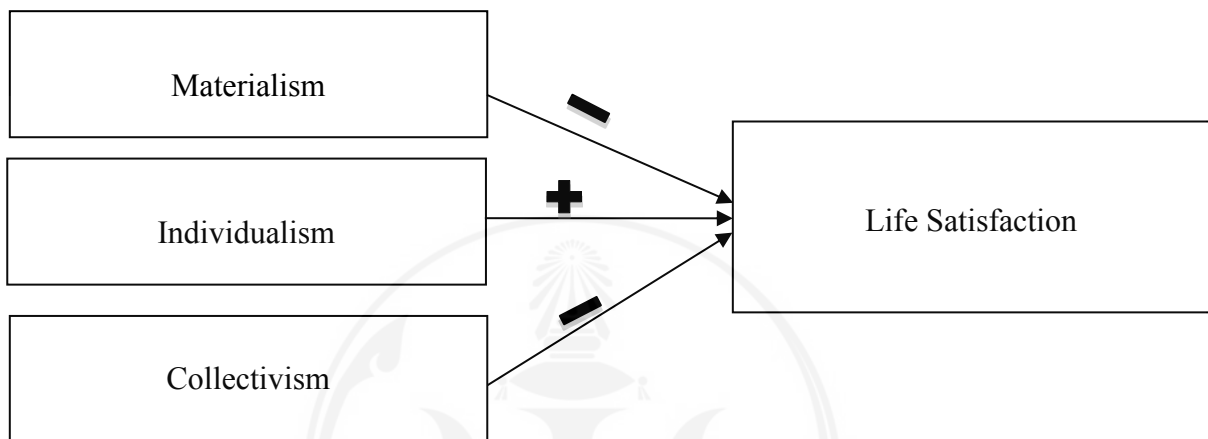
Research hypotheses

Hypothesis 1 Materialism has a negative correlation to life satisfaction.

Hypothesis 2 Individualism has a positive correlation to life satisfaction.

Hypothesis 3 Collectivism has a negative correlation to life satisfaction.

Hypothesis 4 Materialism, individualism and collectivism, together, predict

life satisfaction.

Samples and variables

    1. Samples in this research are undergraduate students in international programs of universities in Thailand

    2. Variables

        2.1 Independent variables

            2.1.1 Materialism

            2.1.2 Individualism

            2.1.3 Collectivism

        2.2 Dependent variable

            2.2.1 Life satisfaction

Operational definitions

1. Materialism refers to "consumers who place material possessions and acquisition at the centre of their lives, value possessions as a means of achieving happiness, or use possessions as indicators of success and status." (Duh, Struwig & Mazibuko, 2011, pp. 38).

    In this research, the researchers employ the 'Material Values Scale' (MVS) by Richins (2004) which is a revised version from Richins and Dawson (1992).

2. Individualism-collectivism:

    a. Individualism refers to the individuals that psychologically possess a sense of personal identity, self-actualization, internal locus of control, and principled reasoning, which in turn attribute self as being personal (Hui & Yee, 1994; Triandis, 2001).

    b. Collectivism refers to the individuals who highly emphasize on in-group norms and totally rely on group consciousness, collective identity,

dependency, and in-group solidarity that can contribute to stability of status

and relationship among their society (Brewer & Chen, 2007).

In this research, the researcher employed "Individualism-Collectivism Scale"

[INDCOL] which is developed by Singelis, Triandis, Bhawuk, and Gelfland (1995).

3. Life satisfaction refers one's cognitive assessment of their life (Diener, 2000). In this

research, the "Satisfaction with Life Scale" [SWLS] developed by Diener, Emmons,

Larsen & Griffin (1985) was employed.

Expected benefits

1. To understand relationship between the three factors of interest.

2. To understand the effect of levels of individualism/collectivism and materialism on

life satisfaction.

3. To add on to the current knowledge of life satisfaction and shed light for possible

future research.

Chapter 2

Method

Samples and population

The samples and population will be chosen based on convenient sampling. According to Hair, Black, Babin and Anderson (2010)'s rule of thumb for sample size calculation, twenty samples are required per one variable at the significance level of .01. Correspondingly, 80 samples are required as there are altogether 4 variables in the present study. However, in order to create a robust effect, an additional 20 samples will be recruited.

The samples in this study include undergraduate students from international programs of universities in Thailand. All of the samples are Thai citizens with Asian ethnicity. The researchers collected a total number of 157 individuals' data, out of which only 92 (58.6%) were considered eligible for data analyses. Data with missing values or predictable pattern of answers were all eliminated. Furthermore, researchers attempted to balance biological sex ratio in order to minimize possible confounding effect.

Measurements

In this research, we employed three measurements in English:

1. Materialism Scale [MS] by Richin and Dawson (1992)

2. Individualism-Collectivism Scale [INDCOL]

   by Singelis, Triandis, Bhawuk, and Gelfland (1995)

3. Satisfaction with Life Scale by Diener, Emmons, Larsen & Griffin (1985)

Materialism scale. Materialism as cited in Richins & Dawson (1992) assessed three main values of materialism (acquisition centrality, happiness, and success). The present research will use the revised 15-items short form modified by Richins (2004, pp.209) called the "Material Values Scale" (MVS). This short form has been shown to outperform the 18-items original scale as the three problematic items were deleted and better psychometric properties were found (Richins, 2004). Moreover, it also balances out the number of each item under each of the three domains, which gives an equal weight to the summed scales. The scale is shown to be well-validated and widely applied in relation to consumer researches (Kasser et al., 2014). The MVS only showed little variation and reached the psychometric standards (Richins, 2004) with "excellent" internal consistency range between .80 and .81 (Kasser et al., 2014, pp.10). This scale is in a form of 5-point Likert scales (strongly agree, agree, neutral, disagree, and strongly disagree). The first factor is measures success, which refers to "possessions as an indicator of success in life", for example "some of the most important achievements in life include acquiring material posessions" (Richins, 2004, pp.217). The second factor measures centrality, which refers to the "importance of acquisition and possession generally", for example "buying things gives me a lot of pleasure" (Richins, 2004, pp.217). The third factor measures happiness, which refers to "the perception that possessions are needed for happiness", for example "I'd be happier if I could afford to buy more things" (Richins, 2004, pp.218). Further details of measurement sample can be referred at appendix A.

Individualism-collectivism scale. Singelis (1995), famously known as one of the developers of Individualism-Collectivism scales, together with Triandis, Bhawuk, and Gelfland, generated a revised version of his previous scale in 1995 by reducing length of questions into a 32 single sentence items-questionnaire. The measurement consisted of four sub-constructs covering all aspects of cultures which included horizontal collectivism,

horizontal individualism, vertical collectivism, and vertical individualism. Despite embedding four subscales, Singelis allowed for scores from horizontal and vertical collectivism subscales and horizontal and vertical individualism subscales to be combined to make collectivism and individualism score. Not only does such scoring system allow for easily interpreted results, it also allows for depth of analysis manipulation, making it a versatile scale. Furthermore, the scale was validated by original scale which also consisted of horizontal/vertical-collectivism items. Also, the measurement is comprised of good internal consistency in both the subscales (α = .74 for individualism and α = .74 for collectivism). Another reason for selecting this measurement is that it is widely used in psychological research field as well as to having been translated into many languages.

Table 3 compares INDCOL to other individualism-collectivism measurements such as SINDCOL by Triandis and Singelis (1998), and Culture Orientation Scale by Triandis and Gelfland (1998). Despite having moderate reliability level, the design of the measure, such as using concise sentences and detailed subscales, may make up for it. For this measurement, participants are required to rate their personal perspective for each item on a 9-point Likert scale, rating from 1(*strongly disagree*) to 9 (*strongly agree*). Each subscales consisted of 8 items. A sample item from horizontal collectivism sub-construct included "my happiness depends very much on the happiness of those around me". Horizontal individualism item sample involved "what happens to me is my own doing". Vertical collectivism sample item included "we should keep our aging parents with us at home". Finally, vertical individualism sample item involved "winning is everything". All items except for one were positively worded. Further details of the measurement can be referred to in appendix B.

Table 3

Comparison of Individualism-Collectivism Measures

Study	Subjects	How measured	Reliability
Singelis, Triandis,Bhawuk, & Gelfland (1995)	Random samples from various ethnic backgrounds	Measured from 4 subscales (vertical individualism, horizontal individualism, horizontal collectivism, and vertical collectivism).	Subscales: .74, .67, .74, .68 respectively
Triandis, & Gelfland (1998)	Graduate students	Measured from 4 subscales (vertical individualism, horizontal individualism, horizontal collectivism, and vertical collectivism).	Subscales: .82, .81, .80, .73 respectively
Triandis & Singelis (1998)	Undergraduate students	Measured from 2 subscales (individualism and collectivism).	Subscales: .71, .69 respectively

Satisfaction with life scale. In 1985, Diener and colleague developed a multi-items assessment for global life satisfaction with high internal consistency as well as temporal reliability ($\alpha = .87$). The scale was also found to be moderately to highly correlate with other quality of life assessments including both self- and non-self measures (Pavot & Diener, 1993). Factor analysis of the scale also revealed a single factor accounting for 66% of the variance measured by the scale, reflecting a valid measure of life satisfaction. Furthermore, SWLS was designed to be used with the general population of all age, sex and race.

Satisfaction with Life scale assessed global life satisfaction on a 7-point Likert scale (Diener, 2006). Individuals were to rate their agreement with the given statements ranging from 1 (*strongly disagree*) to 7 (*strongly agree)*. There are a total of 5 items, all being positively worded, such as "In most ways my life is close to my ideal". The possible highest score is 35 and lowest is 5. Scores ranging from 5 – 9 indicate extreme dissatisfaction with

life while score of 30 – 35 indicate extreme satisfaction with life. Further details of measurement samples can be referred to in appendix C.

Measurements reliability

Scale reliability analysis indicated all scales to have Cronbach's Alpha higher than .6, indicating moderate reliability for all of the measurements employed. Particularly, Individualism-Collectivism Scale [INDCOL] yielded .79 for individualism, and .69 for collectivism, Material Values Scale [MVS] yielded .79 and Satisfaction with Life Scale [SWLS] yielded .86.

Table 4

Cronbach's Alpha for Individualism-Collectivism Scale, Material Values Scale and Satisfaction with Life Scale

Method Measurements	Cronbach's Alpha
Satisfaction with Life Scale [SWLS]	.86
Individualism-Collectivism Scale [INDCOL] – (Individualism)	.79
Individualism-Collectivism Scale [INDCOL] – (Collectivism)	.69
Material Values Scale [MVS]	.79

Data collection

In the present study, all of the data were collected via a battery of online questionnaire on www.surveymonkey.com. Participants recruited and reached through social networking sites and application, such as Facebook, Line, Whatsapp, as well as electronic mailing.

Statistical analysis

The data collected will be analyzed using IBM SPSS statistical software version 20. The analysis will employ the following statistical methods:

1. Descriptive analysis

2. Pearson product moment correlation coefficient

3. Multiple regression analysis: Specifically, 'enter method' will be employed in this analysis such that all the variables will be 'entered' into the equation simultaneously.
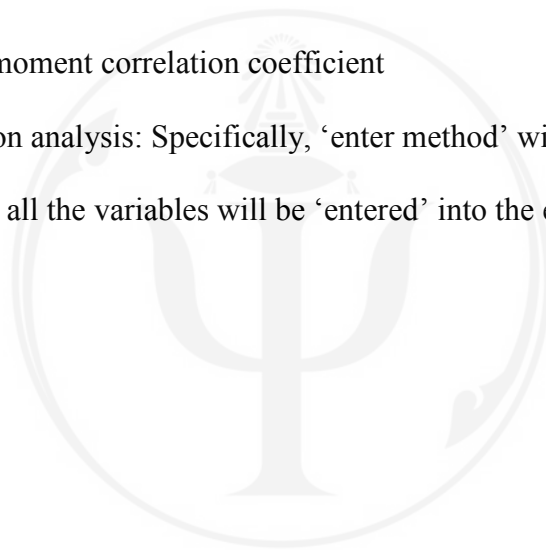
Chapter 3

Results

As shown in Table 5, demographic information of participants regarding their educational background, monetary spending and savings, parental marital status (i.e. 77.2% are together), and other personal information were collected. The sample consisted a total of 92 Thai participants with age ranges between 18-25 years who studied in international university programs. Of these, 59.8% were male and the rest were female (36 male; 55 female) who were mostly in their sophomore year, with the largest proportion from the faculties of Science and Technology. Participants were also generally familiar with city areas (69.6%) and have an average expense of around 8,000 – 12,000 baht per month, which is above the average monthly spending of the general Bangkokians (8,000 baht). Moreover, most of them (47.8%) also reported to have a 10-20% of monthly savings.

Table 5

Demographic Descriptive Data

	Demographics	Frequency	%
Gender	Other	1	1.1
	Male	36	39.1
	Female	55	59.8
	Total	92	100.0
Age	18 and below	4	4.3
	18-25	88	95.7
	Total	92	100.0
Year	1	22	23.9
	2	26	28.3
	3	6	6.5
	4	24	26.1
	5 and above	14	15.2
	Total	92	100.0

Major	Science and Technology	26	28.3
	Arts and Humanities	12	13.0
	Social Science	19	20.7
	Health Science	35	38.0
	Total	92	100.0
Familiarity with Urban Living	Yes	64	69.6
	No	15	16.3
	Live Only	5	5.4
	Study Only	8	8.7
	Total	92	100.0
Monthly Expenses	8000 Baht and below	23	25.0
	8000-12000 Baht	41	44.6
	Above 12000 Baht	28	30.4
	Total	92	100.0
Monthly Savings	No Savings	28	3-.4
	10% - 20%	44	47.8
	20% - 40%	16	17.4
	More than 40%	4	4.3
	Total	92	100.0
Parents' Marital Status	Together	71	77.2
	Separated	7	7.6
	Divorced	11	12.0
	Passed Away	3	3.3
	Total	**92**	**100.0**

As can be referred from table 6, analysis revealed no significant correlations between all of the observed variables. Accordingly, no relationships were found between materialism ($M = 44.99$, $SD =8.08$) and life satisfaction ($M = 23.98$, $SD = 5.58$), ($r = -.09$, ns); as well as individualism ($M = 95.61$, $SD = 14.58$) and life satisfaction ($r = .17$, ns); and also collectivism ($M = 100.92$, $SD = 11.90$) and life satisfaction ($r = .12$, ns).

Table 6

Correlational tables between Individualism, Collectivism, Materialism, and Life Satisfaction

	M	SD	1	2	3	4
1. Individualism	95.61	14.58	(.788)			
2. Collectivism	100.92	11.90	.04	(.690)		
3. Materialism	44.99	8.08	.24**	.13	(.787)	
4. Life Satisfaction	23.98	5.58	.17	.12	-.09	(.855)

**$p < .01$ one-tailed

As shown in table 7, there was no multicollinearity in our data as tolerance level for all variables were beyond .1 while VIF were not more than 10 and having an average much higher than 1. Hence, multiple regression was conducted.

Table 7

Tolerance and VIF Value for Independent Variables

Independent variables	Collinearity Statistics	
	Tolerance	VIF
Collectivism	.98	1.02
Individualism	.94	1.06
Materialism	.93	1.08

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As shown in table 8, multiple regression analysis revealed non-significant effects for all predicting variables, $R^2 = .062$, $F(3, 88) = 1.933$, *ns*. This indicated that all the variables could not significantly contribute to any variance in life satisfaction, such as collectivism, $\beta = .13$, *ns;* individualism, $\beta = .20$, *ns;* as well as materialism, $\beta = -.15$, *ns.*

Life satisfaction = 2.49 + .13 Collectivism + .20 Individualism - .15 Materialism

Table 8

Multiple Regression Analysis Table for Predicting Variables and Life Satisfaction

Independent variables	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	SE_B	β		
)Constant(	2.49	.10		.000	1.00
Collectivism	.13	.10	.13	1.22	.223
Individualism	.20	.11	.20	1.89	.062
Materialism	-.15	.11	-.15	-1.41	.161

Note: $R^2 = .062$

Additional results

As no significant results were found according to the hypotheses, researchers further analyzed the sub-construct of the Individualism-Collectivism scale to see whether horizontal and vertical aspects of culture can explain the insignificant results.

As shown in table 9, there was a positive significant correlation between horizontal individualism ($M = 55.78$, $SD = 7.28$) and life satisfaction ($M = 23.98$, $SD = 5.58$), ($r = .18$, $p = .045$), indicating that high scorers of horizontal individualism tended to also score higher on life satisfaction scale and vice versa. However, no statistically significant correlations were found for horizontal collectivism ($M = 53.01$, $SD = 6.87$) to life satisfaction ($r = .17$, ns); vertical collectivism ($M = 47.91$, $SD = 7.53$) to life satisfaction ($r = .03$, ns); vertical individualism ($M = 39.85$, $SD = 10.12$) to life satisfaction ($r = .12$, ns) and materialism ($M = 44.99$, $SD = 8.82$) to life satisfaction, ($r = -.09$, ns).

Table 9

Additional Correlational Tables between Horizontal Individualism and Collectivism, Vertical Individualism and Collectivism, Materialism and Life satisfaction (N = 92)

Independent Variable	M	SD	Dependent Variable					
			1	2	3	4	5	6
1. Horizontal collectivism	53.01	6.87	(.616)					
2. Horizontal individualism	55.78	7.28	-.17	(.657)				
3. Vertical individualism	39.85	10.12	-.07	.39**	(.776)			
4. Vertical collectivism	47.91	7.53	.37**	.09	.19*	(.571)		
5. Materialism	44.99	8.82	.13	.08	.29**	.08	(.787)	
6. Life Satisfaction	23.98	5.58	.17	.18*	.12	.03	-.09	(.855)

* $p < .05$, one-tailed, **$p < .01$, one-tailed

In addition, a positive significant correlation between vertical individualism and horizontal individualism was discovered, such that high scorers of vertical individualism would be likely to score high in horizontal individualism ($r = .39$, $p < .001$). Similarly, it was also found that vertical collectivism was significantly correlated with horizontal collectivism ($r = .37$, $p < .001$), indicating that people who score high in one scale tended to also score high the other scale. The results also showed that level of materialism significantly correlated with level of vertical individualism ($r = .29$, $p = .002$), indicating that high scorers in materialism scale would also likely be scoring high in vertical individualism. Surprisingly, there was also a significant positive relationship between vertical collectivism and vertical individualism ($r = .19$, $p = .033$).

Table 10

Additional Tolerance and VIF Values for Horizontal Individualism, Horizontal Collectivism, and Materialism

Independent Variables	Collinearity Statistics	
	Tolerance	VIF
Horizontal Individualism	.96	1.04
Horizontal Collectivism	.95	1.05
Materialism	.97	1.03

Similar to the prior result, table 10 and 11 revealed that there was no multi-collinearity in our additional analysis as tolerance level for all variables were beyond .1 while VIF were not more than 10 as well as having an average not much greater than 1. Hence, further analyses of multiple regression were conducted.

Table 11

Additional Tolerance and VIF Values for Vertical Individualism, Vertical Collectivism, and Materialism

	Collinearity Statistics	
Independent Variables	Tolerance	VIF
Vertical Individualism	.89	1.13
Vertical Collectivism	.96	1.04
Materialism	.91	1.10

Table 12

Additional Multiple Regression Analysis Table for Materialism, Horizontal Collectivism, and Horizontal Individualism (Enter) (N = 92)

Independent variables	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	SE_B	β		
)Constant(	1.88	.10		.000	1.00
Materialism	-.13	.10	-.13	-1.30	.196
Horizontal Collectivism	.23	.10	.23*	2.17*	.033
Horizontal Individualism	.23	.10	.23*	2.18*	.032

Note: *p = .05, R^2 = .09

     As depicted by table 12, multiple regression analysis of horizontal collectivism, horizontal individualism, materialism to life satisfaction produced a significant model, R^2 = .090, $F(3, 88)$ = 2.912, p = .039. This illustrated that horizontal collectivism, horizontal individualism, and materialism, in combination, predicted 9% of the variance in life satisfaction. Horizontal individualism, being the most important predictor, significantly accounted for 4.9% of life satisfaction's variance, where higher score of horizontal individualism predicted high score of life satisfaction level, β = .23, p = .032. Horizontal collectivism respectively accounted for 4.8% of the variance in life satisfaction, whereby

higher score in horizontal collectivism predicted higher life satisfaction level, $\beta = .23$, $p = .033$. Materialism, however, did not predict life satisfaction, $\beta = -.13$, *ns.*

Life satisfaction = 1.88 - .13 Materialism + .23 Horizontal collectivism + .23 Horizontal individualism

Table 13

Additional Multiple Regression Analysis Table for Materialism, Vertical Collectivism, and Vertical Individualism

Independent variables	Unstandardized Coefficients		Standardized Coefficients	t	sig
	B	SE_B	β		
)Constant(	5.63	.10		.000	1.00
Materialism	-.13	.11	-.13	-1.20	.234
Vertical collectivism	.01	.11	.01	.08	.934
Vertical Individualism	.15	.11	.15	1.36	.176

Note: $R^2 = .029$

According to table 13, multiple regression analysis for vertical collectivism, vertical individualism and materialism to life satisfaction were also conducted. The analysis rendered the regression model null, producing $R^2 = .029$, $F(3, 88) = .881$, *ns*. No significant results were found such that the predictors could not account for any variance in life satisfaction as follows materialism, $\beta = -.13$, *ns*; vertical collectivism, $\beta = .01$, *ns*; vertical individualism, $\beta = .15$, *ns.*

Life satisfaction = 5.63 - .13 Materialism + .01 Vertical collectivism + .15 Vertical individualism

Chapter 4

Discussion

The aim of this study is to investigate, if present, the effect and causal relationship of culture, including individualism and collectivism, and materialism on life satisfaction.

Hypothesis I: Materialism has a negative correlation to life satisfaction.

Result: The hypothesis was rejected.

Although inconsistent to our first hypothesis, the non-significant statistical result could imply ambiguous relationship of materialism and life satisfaction among our samples. Despite being repeatedly shown to have negative effects, there have been studies illustrating the benefits of materialism on well-being. For instance, Hudders & Padelaere (2011) found that positivity in mood and life satisfaction can be enhanced while negativity in mood can be reduced through the consumption of luxury goods. Although these benefits are found to be temporary, it was shown that multiple short-term engagement of luxury consumption could provide a mediating effect for positive affect. These benefits are especially more pronounced with high materialistic scorers than those lower on materialism, which could be attributed to the positive reinforcement of material possessions. As Thai consumers were found to be more materialistic than American consumers (Webster & Beatty, 1997), it is plausible that the beneficial effect of materialism is presented in our samples.

Nevertheless, the analysis of the data did reveal a negative direction of the relationship between materialism and life satisfaction. Although the result was not statistically significant, the direction of the relationship is congruent to the hypothesis and many other previous literatures. According to Roberts, Tsang & Manolis (2015), materialism could reflect a number of extrinsic goals such as social recognition, financial success, and attractiveness (as cited in Kasser 2002; Richins & Dawson 1992). Hence, the extent to which material possession is perceived as important to one's life in relation to other domains of life

can impact their overall life-satisfaction (as cited in Sirgy et al., 2012). For instance, when materialistic individuals experience dissatisfaction with life domains that are highly relevant to their materialistic value, such as financial situation, they are likely going to experience dissatisfaction in other domains of life, which in turn can lead to dissatisfaction in life as a whole. Correspondingly, research conducted by Webster & Beatty, 1997 among the Thai and U.S. consumers showed that although both cultures placed equal emphasis on the domains of centrality and happiness in relation to materialism, the domain of success received greater emphasis by Thai consumers. Hence, it is likely that Thai consumers are going to experience higher dissatisfaction in life when their material needs were not met. Furthermore, materialism is fundamentally driven by the need to feel secure and defensiveness (Roberts, Tsang & Manolis, 2015). This is shown to be contingent upon others' approval for a sense of fulfillment and can be a cause for frustration. Indeed as materialistic as Thai consumer were found to be, they were also found to focus more on materials that boost their public self-image (Webster & Beatty, 1997). This can confirm the bidirectional dependence between Thai people and the impact of materials on their well-being. Ultimately, the nature of our Thai sample may lead them to benefit from materialism. Regardless, because materialism tended to have very strong negative effect on life satisfaction, the trend of their relationship leaned towards the negative end. Due to such opposing dynamics between the possible benefits and strong negative consequences, the relationship may be ambiguous, resulting in non-significant finding.

Hypothesis II: Individualism has positive correlation to life satisfaction.

Result: The hypothesis was rejected.

Despite yielding non-significant result, the researchers believed there may still be underlying dynamic of the focal variable based on the literature review. In order to further investigate the undermining rationale for this insignificant result, the researchers further analyzed the sub-constructs of individualism which includes vertical and horizontal individualism. In doing so, a positive significant relationship between horizontal individualism and life satisfaction was revealed. A plausible explanation for this finding is that the prominence between hedonic balance and life satisfaction is strong in individualistic cultures (Suh et al., 1998). Individualistic people were found to focus highly on the capability to be independent from the groups in comparison to collectivistic people; therefore, they are more likely to seek for and take pride on their personal happiness and accomplishments (Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002). In addition, individualistic people were also found to have higher tendency to base their life satisfaction evaluation on personal emotion (Suh & Oishi, 2002), making it easier for them to inherently express such judgment. It should not come as a surprise that only horizontal but not vertical individualism is associated with life satisfaction. Since horizontal aspect of culture advocates equality, horizontal individualists should not be affected by external influence such as hierarchy when making subjective evaluation. Instead, their internal principles of equality may reflect internal locus of control which allow for higher sense of control over life. In fact, Lachman and Weaver (1998) found that higher sense of control is linked with enhanced well-being, including better physical health and higher life satisfaction and lower level of depression. This effect was presented regardless of differences in social economic status. Accordingly, horizontal individualists would most likely feel more satisfied with their life, hence the positive relationship observed. Vertical individualists, on the other hand, may be more

affected by external influence like hierarchy when making any judgment about life. Thus,

their evaluation of life satisfaction may not be as straightforward as horizontal individualists.

Hypothesis III: Collectivism has a negative correlation to life satisfaction.

Result: The hypothesis was rejected.

Similar to the second hypothesis, the researchers attempted to further investigate the possible relationship by analyzing the sub-constructs of collectivism which includes horizontal and vertical collectivism. Nevertheless, no significant relationships were discovered. It is worth mentioning, however, that no negative trend of the predicted relationship was presented. Although previous literature illustrated negative relationships between collectivism and life-satisfaction, Yetim (2002) suspected that this was due to contradiction between individuals' value cultivated from their rearing experience and the value of the current context. For instance, female Turkish university students reared in collectivistic manner reported lower life-satisfaction when trying to fit in with their independent university lifestyle. Unlike this particular study, our participants reported being highly familiar with urban style of living and Westernized education. This can imply that our participants are accustomed to experiencing integrated cultural experience, as they live in Thailand while being exposed to Westernize style of education. Thus, there should be no conflict in cultural values resulting in a positive trend of relationships in our finding. As a matter of fact, the relationship between horizontal collectivism and life-satisfaction nearly reached statistical significant, missing by .002 ($p = .052$). The researchers strongly believe that this relationship would yield statistical significant with a bigger sample size.

As highlighted by Markus and Kitayama (1993), collectivistic individuals tended to rely on the groups' norm and idea as a marker for life satisfaction and success. In addition, the regulations of such behavior can contribute to strengthening of in-group relationships (Rhee, Uleman, Lee, and Roman (1995), which they reflect upon when evaluating their own life, can explain a positive trend in this finding. This should be especially strong for horizontal

collectivist as each individual can exercise their sense of control for their contribution to the group.

Nevertheless, the fact that this relationship was not found to be significant can be attributed to the reluctance of collectivists in expressing personal feelings, especially when they are positive (Suh and Oishi, 2002). Consistent with prior findings, Diener (2000) discovered that individualistic cultures reported higher life satisfaction when compared with collectivism. According to Suh and Oishi (2002), individualists are very comfortable in expressing their own feelings towards public as their goal is to be independent and outstanding from others, thus implicating the tendency to illustrate the true 'self' when answering questionnaire. On the contrary, collectivists do not seek to stand out and have the tendency to rely on social cues rather than relying on internal attributes, such as emotions, when making personal life decision. As our measurements required participants to make personal life evaluation independently, this may make it harder for them to evaluate life with little to no social cues.

Hypothesis IV: Materialism, individualism and collectivism, when taken together, predict life satisfaction.

Result: The hypothesis was rejected.

According to the trend of our correlational findings, it is not surprise that no predictors successfully contribute to life satisfaction as individual relationships between each predictor to life satisfaction were also not found. Regardless, this may also suggest that life satisfaction cannot be predicted by culture and materialism as their nature of relationship may not be a causal one. Therefore, our findings can serve as an evidence of absence for the investigated relationship. Nevertheless, according to our additional correlation analysis, there were positive trends in the subscales of individualism and collectivism such that horizontal individualism and horizontal collectivism were found to have positive significant relationship to life satisfaction. Correspondingly, regression analysis showed that together horizontal collectivism and individualism also successfully predicted life satisfaction. As Thailand is a democratic country where individual rights are valued ("Government of Thailand", 2015), horizontal aspect of culture such as equality would therefore be congruent to Thailand's societal context. Due to such congruence, it is plausible that people would rely on the concept of equality when making a subjective judgment about their life, including life satisfaction. Indeed, previous study by Musiol and Boehnke (2013) have illustrated that life satisfaction is higher for individuals when their personal value fits with their cultural contexts such that individualistic people were more satisfied with life when living in an individualistic environment. Consistently, this would also explain why horizontal collectivism predicted life satisfaction in our sample as Thailand is not only a democratic country but also a collectivistic one (Diener & Diener, 2000). In addition, another analysis of vertical collectivism and individualism revealed that they, together, cannot predict life satisfaction. This may also be explained by the country's societal and cultural context because the value of

status quo and hierarchy does not reflect democratic values. This is not to say that Thailand is not a vertically collectivistic country. However, this may still imply that our sample, which only consisted of the younger generation of Thai population, do not regard vertical collectivistic value as important to life satisfaction. In relation to this regard, previous studies have shown that individuals with higher education often show better apprehension for the concept of democracy such as civil rights, gender equality and free elections and able to better tolerate diversity (Chzhen, 2013). Furthermore, they were also found to engage more in political activities such as voting, volunteering, donating, and also was found to be more open to others' opinions (Baum & Ma, 2007).

Moreover, consistent with earlier discussion, the more important dimension of culture appears to be its horizontal or vertical aspect not collectivism or individualism. The fact that horizontal cultures were found to predict life satisfaction, while vertical cultures did not, suggested that life satisfaction can occur for both types of cultures (individualism and collectivism). Specifically, our findings indicated life satisfaction to be prominent in horizontal cultures. Yet, we did not find any relationships between vertical cultures and life satisfaction, indicating that vertical cultures may not be a relevant factor when making life satisfaction judgment. Nevertheless, due to insufficient sample size, it is impossible to say that vertical aspect of culture do not at all interact with life satisfaction. It would, therefore, be beneficial for future study to examine their relationships.

Furthermore, materialism was also not found to contribute to life satisfaction for all of the regression models. This finding is consistent with materialism relationship to life satisfaction that was discussed earlier, further supporting our previous explanation their relationship.

Additional finding that should be highlighted in this present study include the relationship between materialism and life satisfaction indicating that vertical individualists

tended to be materialistic and vice versa such that materialists also tended to be vertical individualists. According to Sivadas and colleagues (2008) individualistic people prioritize personal goals and act accordingly to their preferences and attitudes. Specifically, vertical individualists are characterized as competitive, focus on status, and emphasize on being "the best" and "unique" (pp.202). In relation to this, it is plausible that vertical individualists perceive less pressure to conform to the norm and hence consider less about the society as a whole. As materials can serve as a marker for status, people may seek to express and differentiate themselves through possession of materials. For instance, regardless of societal trends and values, vertical individualists are still likely to express themselves in their own terms. Therefore, when a vertical aspect of culture and individualism gets combined, it may result in a strong support for status quo where vertical individualists would endorse in materials that reflect their status without considering the societal norm.

Limitation

Due to time strain and faculty regulation, the researchers were unable to recruit more than 100 samples. Restricted sample size definitely a major limitation to this study. In many instances, the analysis showed that the results were approaching the significant level. Hence, we speculated that insufficient sample size leaded to lack of power in finding significant results. Another main limitation to the study may be the use of online questionnaires. Upon checking raw data, many of the data were flawed such that many questionnaires were incomplete. Some data contained patterned answers that did not reflect real attitude. For example, same scores were given for a reverse and non-reverse question. As a matter of fact, only 58% the initial collected data were usable in data analyses. Hence, it was speculated that unsupervised online measures may allow for many confounding situational and motivational factors. In addition, researchers also speculated language barrier problems for our sample. Despite employing students from international programs, there may still be English proficiency difficulties among the samples. For example, when given a chance to fill in their own answer, some answers were irrelevant or did not reflect the question, indicating a misunderstanding of the intention of the question.

Suggestion and future research

Even though this study attempted to explore cultural values and its interaction with individuals and their well-being, the sample used in the study lacked diversity in cultural background. Therefore, future research may want to further explore cross-cultural samples to find, if presented, the interaction of materialism, culture and life satisfaction. Future research should also take the limitation into account by increasing sample size, using multiple methods of data collection and have many translated version of the questionnaires such that participants can choose their preferred language. Additionally, since our study could not find combined predictive ability of culture and materialism to life satisfaction, it is possible that

their relationships cannot be analyzed in this manner. Nevertheless, the researchers believed that there is still potential for relationship between the studied variables if mediating effect of culture between materialism and life satisfaction was observed. Thus, a follow-up study on this mediating effect may provide much further insights into the nature of their relationship.

Implication

As our study is a novel research, the study represents a stepping stone for psychological knowledge in Southeast Asia region. Although individualism was repeated found to be linked to life satisfaction in a stronger degree than collectivism, our findings appear to show that types of culture are less relevant to life satisfaction. Instead, horizontal aspect of culture was repeatedly found to be linked to life satisfaction. This comes to show that regardless of cultures (individualism or collectivism), people can have life satisfaction when equality is presented.

Chapter 5

Summary

Research Objective

1. To study the relationships between materialism, levels of individualism and collectivism and life satisfaction

Research Hypotheses

1. Materialism has a negative correlation to life satisfaction

2. Individualism has a correlation to life satisfaction

3. Collectivism has a correlation to life satisfaction

4. Material, individualism and collectivism predict life satisfaction.

Sample

Convenience sampling method was employed in this research via online measurements. Eligible participants consist of 92 undergraduate students who currently studied in international program from various universities in Thailand.

Measurement

Four measurement scales that were employed in this research are as followed:

1. Demographic Questionnaire, designed by the researchers, consisted of 11 items.

2. Culture Scale

The Individualism and Collectivism Scale (INDCOL), developed by Singelis, Triandis, Bhawuk, & Gelfland (1995), consisted of 32 items.

3. Materialism Scale

Materialism Values Scale (MVS), developed by Richin (2004), consisted of 16 items.

4. Scale for Life Satisfaction

Satisfaction with Life Scale, developed by Diener, Emmons, Larsen, & Griffin (1985), consisted of 5 items.

Data Collection

The researchers collected data via online methods, as the questionnaire is coded

online via www.surveymonkey.com

Data Analysis

1. Analyzed descriptive statistics including frequency, percentage, mean, and standard
   deviation

2. Analyzed relationships between variables via Pearson's product moment correlation

3. Analyzed inferential statistics via multiple regression model

Result

1. Throughout Pearson's correlation analysis, it was revealed that none of the

independent variables significantly correlated with life satisfaction ($M = 23.98$, $SD = 5.58$),

such that materialism ($M = 44.99$, $SD = 8.08$), ($r = -.09$, ns); individualism ($M = 95.61$, $SD =$

14.58), ($r = .17$, ns); as well as collectivism ($M = 100.92$, $SD = 11.90$), ($r = .12$, ns), had no

correlation with life satisfaction. The only significance found in this analysis was the

relationship between materialism and individualism ($r = .24$, $p < .001$).

2. Multiple Regression Analysis had revealed that all the independent variables,

altogether, could not predict life satisfaction, $R^2 = .062$, $F(3, 88) = 1.933$, ns. Even

individually, materialism ($\beta = -.15$, ns), collectivism ($\beta = .13$, ns), as well as individualism (β

$= .20$, ns) could not account for any variance in life satisfaction.

3. An additional correlational analysis showed that there were significant findings,

when separating culture variables into four sub-constructs: horizontal individualism and

collectivism and vertical individualism and collectivism. Positive significant correlations

between vertical individualism ($M = 39.85$, $SD = 10.12$) and horizontal individualism (M

$=55.78$, $SD = 7.28$), ($r = .39$, $p < .001$) were discovered. Likewise, there is a positive

correlation between vertical collectivism ($M = 47.91$, $SD = 7.53$) and horizontal collectivism

($M = 53.01$, $SD = 6.87$), ($r = .37$, $p < .001$). Vertical individualism and vertical collectivism was also found to significantly correlate with one another ($r = .19$, $p < .001$). Furthermore, the researchers discovered a significant relationship between materialism ($M = 44.99$, $SD = 8.82$) and vertical individualism ($r = .29$, $p = .002$), as well as a positive correlation between horizontal individualism and life satisfaction ($M = 23.98$, $SD = 5.58$), ($r = .18$, $p = .045$).

4. The researchers additionally conducted 2 multiple regression analyses separating horizontal and vertical aspect of cultures. Regression model for horizontal cultures revealed that materialism, horizontal collectivism, and horizontal individualism successfully accounted for the variance in life satisfaction, $R^2 = .090$, $F(3, 88) = 2.912$, $p = .039$. Horizontal collectivism significantly accounted for 4.8% of the variance in life satisfaction, $\beta = .23$, $p = .033$, whereas horizontal individualism significantly accounted for 4.9% of life satisfaction's variance, $\beta = .23$, $p = .032$. Materialism was the only variable that could not alone predict life satisfaction, $\beta = -.13$, *ns*. In contrast, regression model for vertical cultures and materialism could not predict any variance in life satisfaction indicating that vertical individualism, vertical collectivism, and materialism do not contribute to life satisfaction, whether in combination or individually.

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Appendix A

Materialism Values Scale

This measurement is rated on a scale ranging from 1-5 (strongly disagree, disagree, neutral, agree, and strongly agree).

SUCCESS

1. I admire people who own expensive homes, cars, and clothes

2. Some of the most important achievements in life include acquiring material possessions.

3*. I don't place much emphasis on the amount of material objects people own as a sign of success.

4. The things I own say a lot about how well I'm doing in life.

5. I like to own things that impress people.

CENTRALITY

6. I try to keep my life simple, as far as possessions are concerned.

7*. The things I own aren't all that important to me.

8. Buying things gives me a lot of pleasure.

9. I like a lot of luxury in my life.

10*. I put less emphasis on material things than most people I know.

HAPPINESS

11*. I have all the things I really need to enjoy life.

12. My life would be better if I owned certain things I don't have.

13*. I wouldn't be any happier if I owned nicer things.

14. I'd be happier if I could afford to buy more things.

15. It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.

* The item is a reversed-score question

Appendix B

Individualism and Collectivism Scale (INDCOL)

This measurement is rated from 1-9 (1 stands for strongly disagree whereas 9 stands for strongly agree).

1. My happiness depends very much on the happiness of those around me. HC

2. Winning is everything VI

3. I usually sacrifice my self-interest for the benefit of my group VC

4. It annoys me when other people perform better than I do VI

5. It is important to maintain harmony within my group. HC

6. It is important that I do my job better than others.   VI

7. I like sharing little things with my neighbors.   HC

8. I enjoy working in situations involving competition with others. VI

9. The well-being of my co-workers is important to me.   HC

10. I often do "my own thing" HI

11. If a relative were in financial difficulty, I would help within my means. HC

12. Competition is the law of nature. VI

13. If a co-worker gets a prize, I would feel proud. HC

14. I like my privacy. HI

15. To me, pleasure is spending time with others. HC

16. When another person does better than I do, I get tense and aroused.   VI

17. Children should be taught to place duty before pleasure.   VC

18. Without competition, it is not possible to have a good society. VI

19. I feel good when I cooperate with others.   HC

20*. Some people emphasize winning; I'm not one of them. VI

21. I would do what would please my family, even if I detested that activity. VC

22. One should live one's life independently of others.   HI

23. Children should feel honored if their parents receive a distinguished award. VC

24. What happens to me is my own doing. HI

25. We should keep our aging parents with us at home. VC

26. I prefer to be direct and forthright when discussing with people. HI

27. I would sacrifice an activity that I enjoy very much if my family did not approve of it.
VC

28. When I succeed, it is usually because of my abilities. HI

29. I hate to disagree with others in my group. VC

30. I am a unique individual. HI

31. Before taking a major trip, I consult with most members of my family and many friends.
VC

32. I enjoy being unique and different from others in many ways. HI

- • * The item is a reversed-score question.
- • HI = Horizontal Individualism
- • VI = Vertical Individualism
- • HC = Horizontal Collectivism
- • VC = Vertical Collectivism

Appendix C

Satisfaction with Life Scale (SWLS)

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree

- 6 - Agree

- 5 - Slightly agree

- 4 - Neither agree nor disagree

- 3 - Slightly disagree

- 2 - Disagree

- 1 - Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The conditions of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

Appendix D

The online survey form

(Please see next page)

The relationship between materialism, level of individualism- collectivism and life satisfaction

Demographic

This questionnaire was designed for students currently enrolled in undergraduate programs only. If you do not identify as undergraduate student, please do not attempt the questionnaire. Thank you for your cooperation.

* 1. What is your gender?

○ Male

○ Female

○ Other (please specify)

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[                              ]
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* 2. What is your age?

○ 18 and below

○ 18 - 25

○ 26 and above

* 3. Which year are you in?

○ 1st

○ 2nd

○ 3rd

○ 4th

○ 5th and above

* 4. What is your major?

○ Science and technology (Science, engineering, architecture)

○ Arts and humanities (Arts and literature, fine arts, laws)

○ Social science (Political science, communication arts, commerce and accountancy, economics, education)

○ Health science (Medicine, dentistry, pharmaceutical science, allied health science, veterinary science, psychology, sport science, nursing)

○ Other (please specify)

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[                              ]
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* 5. Nationality

○ Thai

○ Australian

○ Chinese

○ Indian

○ Korean

○ Other

Other (please specify)

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[                              ]
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* 6. What is your ethnicity?

○ Native American

○ Asian

○ African or African American

○ Hispanic or Latino

○ Caucasian

○ Other (please specify)

[   ]

* 7. What country do you currently live in?

○ Thailand

○ Australia

* 8. Do you live and study in the city areas?

○ Yes

○ No

○ Live only

○ Study only

* 9. Average personal spending per month

○ Thai: Below 8,000B or Australian: below $1,400

○ Thai: 8,000B - 12,000B or Australian: $1,400 - $3000

○ Thai: 12,000B and above or Australian: $3000 and above

* 10. Savings per month

○ No savings

○ 10% - 20%

○ 20% 40%

○ 40% and above

* 11. Parents' marital status

○ Together

○ Separated

○ Divorced

○ Passed away

○ Other (please specify)

[   ]

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The relationship between materialism, level of individualism- collectivism and life satisfaction

Scale 1

Please rate the following statements on a scale from 1 (strongly disagree) - 9 (strongly agree).

* 12. Scale 1

	Strongly disagree	Disagree	Moderately disagree	Mildly disagree	Undecided	Mildly agree	Moderately agree	Agree	Strongly agree
1.1 My happiness depends very much on the happiness of those around me.	○	○	○	○	○	○	○	○	○
1.2 Winning is everything.	○	○	○	○	○	○	○	○	○
1.3 I usually sacrifice my self-interest for the benefit of my group.	○	○	○	○	○	○	○	○	○
1.4 It annoys me when other people perform better than I do.	○	○	○	○	○	○	○	○	○
1.5 It is important to maintain harmony within my group.	○	○	○	○	○	○	○	○	○
1.6 It is important that I do my job better than others.	○	○	○	○	○	○	○	○	○
1.7 I like sharing little things with my neighbors.	○	○	○	○	○	○	○	○	○
1.8 I enjoy working in situations involving competition with others.	○	○	○	○	○	○	○	○	○
1.9 The well-being of my co-workers is important to me.	○	○	○	○	○	○	○	○	○
1.10 I often do "my own thing".	○	○	○	○	○	○	○	○	○
1.11 If a relative were in financial difficulty, I would help within my means.	○	○	○	○	○	○	○	○	○

1.12 Competition is the law of nature.	○	○	○	○	○	○	○	○	○
1.13 If a co-worker gets a prize, I would feel proud.	○	○	○	○	○	○	○	○	○
1.14 I like my privacy.	○	○	○	○	○	○	○	○	○
1.15 To me, pleasure is spending time with others.	○	○	○	○	○	○	○	○	○
1.16 When another person does better than I do, I get tense and aroused.	○	○	○	○	○	○	○	○	○
1.17 Children should be taught to place duty before pleasure.	○	○	○	○	○	○	○	○	○
1.18 Without competition, it is not possible to have a good society.	○	○	○	○	○	○	○	○	○
1.19 I feel good when I cooperate with others.	○	○	○	○	○	○	○	○	○
1.20 Some people emphasize winning; I'm not one of them.	○	○	○	○	○	○	○	○	○
1.21 I would do what would please my family, even if I detested that activity.	○	○	○	○	○	○	○	○	○
1.22 One should live one's life independently of others.	○	○	○	○	○	○	○	○	○
1.23 Children should feel honored if their parents receive a distinguished award.	○	○	○	○	○	○	○	○	○
1.24 What happens to me is my own doing.	○	○	○	○	○	○	○	○	○
1.25 We should keep our aging parents with us at home.	○	○	○	○	○	○	○	○	○
1.26 I prefer to be direct and forthright when discussing with people.	○	○	○	○	○	○	○	○	○
1.27 I would sacrifice an activity that I enjoy very much if my family did not approve of it.	○	○	○	○	○	○	○	○	○

	Strongly disagree	Disagree	Moderately disagree	Mildly disagree	Undecided	Mildly agree	Moderately agree	Agree	Strongly agree
1.28 When I succeed, it is usually because of my abilities.	○	○	○	○	○	○	○	○	○
1.29 I hate to disagree with others in my group.	○	○	○	○	○	○	○	○	○
1.30 I am a unique individual.	○	○	○	○	○	○	○	○	○
1.31 Before taking a major trip, I consult with most members of my family and many friends.	○	○	○	○	○	○	○	○	○
1.32 I enjoy being unique and different from others in many ways.	○	○	○	○	○	○	○	○	○

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Scale 2

Please rate the following statements on a scale from 1 (strongly disagree) - 5 (strongly agree).

* 13. Scale 2

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
2.1 I admire people who own expensive homes, cars, and clothes.	○	○	○	○	○
2.2 Some of the most important achievements in life include acquiring material possessions.	○	○	○	○	○
2.3 I don't place much emphasis on the amount of material objects people own as a sign of success.	○	○	○	○	○
2.4 The things I own say a lot about how well I'm doing in life	○	○	○	○	○
2.5 I like to own things that impress people.	○	○	○	○	○
2.6 I try to keep my life simple, as far as possessions are concerned.	○	○	○	○	○
2.7 The things I own aren't all that important to me.	○	○	○	○	○
2.8 Buying things gives me a lot of pleasure.	○	○	○	○	○
2.9 I like a lot of luxury in my life.	○	○	○	○	○
2.10 I put less emphasis on material things than most people I know.	○	○	○	○	○
2.11 I have all the things I really need to enjoy life.	○	○	○	○	○
2.12 My life would be better if I owned certain things I don't have.	○	○	○	○	○
2.13 I wouldn't be any happier if I owned nicer things.	○	○	○	○	○
2.14 I'd be happier if I could afford to buy more things.	○	○	○	○	○
2.15 It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like.	○	○	○	○	○

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Page 3

Below are five statements that you may agree or disagree with. Using the 1 - 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

* 14. Scale 3

	Strongly disagree	Disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Agree	Strongly agree
3.1 In most ways my life is close to my ideal.	○	○	○	○	○	○	○
3.2 The conditions of my life are excellent.	○	○	○	○	○	○	○
3.3 I am satisfied with my life.	○	○	○	○	○	○	○
3.4 So far I have gotten the important things I want in life.	○	○	○	○	○	○	○
3.5 If I could live my life over, I would change almost nothing.	○	○	○	○	○	○	○

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Bibliography

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Mr Chansakulporn graduated high school from St.Paul's School Darjeeling, before he entered Join International Program of Psychology (JIPP) at Chulalongkorn University. His main field of interest includes the effect of cultural differences between individuals on subjective well-being. He is delighted to investigate the relationship between different cultures as well as faithfully believes that they can integrate among each other with peace, though with different moral perspective.

Walaipan Anotaiyuenyong

Walaipan Anotaiyuenyong is undergraduate student with a Bachelor of Psychology at the University of Queensland, Australia, and is expecting to receive her second psychology degree from Chulalongkorn University in October 2015. With experiences in living and working abroad for a period of time has given her various opportunities to engage in diverse kind of experiences which grew into an interest in human behaviors. Furthermore, Walaipan is looking forward to further pursue her study in the field of consumer psychology, which has always been her interest.

Saruda Chantrapanichkul

Saruda Chantrapanichkul is currently a psychology major of Chulalongkorn University. As part of the Joint International Psychology Program condition, Saruda also recently graduated from the University of Queensland with a BA in extended major in psychology and minor in sociology. Having experienced different cultural contexts, she finds the impact of culture fascinating. In the near future, Saruda wishes to explore her passion and pursue continuing studies on marketing and advertising. Particularly, she intended to make a good use of psychology knowledge gained throughout her undergraduate years by applying them in other area of studies.