An Examination of Salient Dimensions of Senior Tourist Behavior: Relationships among Personal Values, Travel Constraints, Travel Motivation, and Quality of Life (QoL)

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ABSTRACT

Retiring from work is a major personal and professional transition and has a major influence on one's life. It is imperative that these retired individuals endeavor to adjust to this life and change and learn to effectively manage their time. Tourism and gerontology researchers have been aware of the importance of seniors' tourism and leisure activities to enhance their well-being. However, limited attention has been recently devoted to senior consumers, who are still often not included in a range of marketing practices in tourism studies. Therefore, this dissertation focuses on senior tourists who are over the age of 65 and retired, and mainly focuses on a senior's travel motivation, and examines the antecedents of travel motivation; personal values and travel constraints and their consequences; satisfaction with salient life domains of QoL, and overall QoL.

The sample population of seniors residing in Jeju, South Korea was surveyed. A final sample of 328 were subjected to data analysis. Structural equation modeling (SEM), Chi-square difference test, independent t-tests, and multi-group analysis were performed to test the hypotheses.

The findings of this dissertation revealed that a positive relationship between personal values and travel motivation of seniors. This means that if the senior tourists with strong personal values, then they are more motivated to go travel. On the other hand, travel constraints did have negative significant influence on travel motivation. Another finding of the study showed that travel motivation affect their satisfaction with different life domains; if they are highly motivated, they are more satisfied with their life domains including 'family', 'social', 'emotional', 'leisure' and 'health life', which in turn contribute to their overall quality of life. Findings also indicated that statistical significance of the moderating effect in the model, thus suggesting that there were some meaningful moderating effects of the type of leisure activity patterns on the relationship between satisfaction with life domains and overall quality of life. The study also provided managerial implications for tourism marketers and destination managers.

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CHAPTER ONE: INTRODUCTION

1.1 INTRODUCTION

An explanation of and support for the research purposes are provided in the introduction. First, the background and overview of the study are introduced. Subsequent research questions, theoretical background, and objectives of the study are explained. The explanation of the conceptual model used in this study is then presented. Lastly, a discussion of the study's contributions is given.

1.2 BACKGROUND AND OVERVIEW

Recently, the important issues for the tourism industry have revolved around the changing age demographics and wellness/health trends connected with travel behavior.

According to the census report for world population aging, there were 841 million seniors reported in 2013, which accounted for 12% of the world's population in 2013. This figure is expected to reach 21% by 2050. This rapid increase in the number of seniors applies to many countries (United Nations, 2013). For example, the US census report released in 2012 reported 40 million people living in the United States are over the age of 64. This figure accounts for 13% of the total US population in 2010. By 2030, the US senior population is expected to be 72 million—twice as large as in 2000—and to account for almost 20% of the total U.S. population (U.S. Department of health and human service, 2012). Similar trends are also found in South Korea, where those over 65 accounted for 11% of the population in 2010, a figure that is expected to grow to 24.3% in 2030 and 40.1% in 2060, which would give South Korea one of the highest proportions of seniors in the world (Kim & Moon, 2011). Further, the growing

number of seniors today are more independent and better educated than those of earlier generations (Adams, Leibbrandt, & Moon, 2010). Retirement pensions and easily available health insurance have improved the economic standing of many seniors, which along with better healthcare and nutrition, has led to longer life expectancies (Adams et al., 2011). Hence, this phenomenon implies that seniors are becoming a more important segment of the tourism and hospitality market, one that is entitled to consideration (Bai, Jang, Cai, & O'leary, 2001; Lohmann & Danielsson, 2001; Schröder & Widmann, 2007).

More importantly, retiring from work is a major personal and professional transition and has a major influence on one's life (Gee, 1999; Nimrod, 2008; Nuttman-Shwartz, 2004). Some retirees sense a loss of meaning, while others view retirement with anticipation as a new chapter in life (Gee, 1999). It is imperative that these retired individuals endeavor to adjust to this life and change and learn to effectively manage their time. According to Nazareth (2010), senior tourists experiencing the impacts of aging leads to an increase in their attention towards nutrition, an increased use of individualized tourism, and leisure activity as a means of supporting their wellness, quality of life, and health. Additionally, gerontology researchers have been aware of the importance of seniors' tourism activities to enhance their well-being (Jang, Bai, Hong, & O'Leary, 2004; McGuire, Uysal, & McDonald, 1988; Wei & Milman, 2002).

Despite the growing importance of this age group, limited attention has been recently devoted to senior consumers, who are still often not included in a range of marketing practices in tourism studies (Boksberger & Laesser, 2009; Kim, Woo, & Uysal, 2015; Lee & Tideswell, 2005). Moreover, there is limited research investigating the travel behavior of senior tourists and its relation to their well-being and Quality of Life (QoL). An empirical study examining senior tourists' behaviors should be conducted in tourism. Therefore, the main purpose of this

dissertation is to understand senior tourists' behavior and its connection to their QoL.

In pursuit of this purpose, this study focuses on senior tourists who are over the age of 65 and retired, and mainly focuses on a senior's travel motivation, and examines the antecedents of travel motivation; personal values and travel constraints and their consequences; satisfaction with salient life domains of QoL, and overall QoL. The specific purpose of this dissertation proceeds as follows.

First, the study explores seniors' travel motivation. Motivation, the driving force behind behavior, shows why people travel and illuminates their preferences (Crompton, 1979; Dann, 1981). A review of tourism literature reveals that tourist motivation is considered the essential part of the dynamic process of tourist behavior. Katz (1960) introduced a functional theory that argues that determining behaviors can be influenced by diverse motivations, which in turn act as catalysts to serve psychological needs and wants, creating tension within individuals (Crompton & McKay, 1997; Fodness, 1994; Houle, Sagarin, & Kaplan, 2005). Limited studies have examined senior tourist motivations in the tourism field (Chen & Wu, 2009; Huang & Tsai, 2003; Jang & Wu, 2006). It is assumed that seniors' travel motivations may be different from those of younger tourists. Thus, identifying the seniors' travel motivations helps us understand the senior tourist market and provides theoretical and practical managerial implications (Wight, 2001).

Next, the study examines key antecedents of travel motivation for senior tourists. Senior tourists' personal values are examined first since psychological factors play an important role in understanding senior's behavior. The concept of values, which has been investigated across several disciplines including psychology and sociology, is useful in examining a plethora of behaviors—including consumer behavior (e.g., Kamakura & Novak, 1992). Rokeach (1973, p.5)

defined value as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence". Inherent in this definition is the idea that values influence actions, attitudes towards objects, and evaluations of behaviors and events (Eagly & Chaiken, 1993; Rokeach, 1973). The work of Roccas, Sagiv, Schwartz, and Knafo (2002) showed that values such as achievement, self-direction, and stimulation are linked with positive effects among seniors. However, Burr, Santo, and Pushkar (2011) argued that what are generally perceived as healthy values—achievement, self-direction, and stimulation—may not have the same valuation among seniors. That is, different values have different effects and levels for different age groups. Similarly, tradition, conformity, and security may not exhibit the same degree of reduced positive effects among the seniors as they do among the general adult population. Seniors may exhibit a different set of values more strongly. Moreover, Hofstede and Hofstede (2005) argued that values have significant explanations of human behavior including motivation. For instance, Ateljevic (1997) argued that motivations are formed through the values acquired within an individual's everyday life, and this study showed the positive effect of the value on travel motivation. Despite that the important role of values in predicting senior tourist behavior is widely recognized, values have received limited empirical attention in examining senior tourists' behavior and its relation to other behaviors such as travel motivation. Thus, this study aims to investigate senior tourists' personal values and its effect on travel motivation.

Third, the study attempts to understand a senior's travel constraints as external factors affecting travel motivation. Constraints are generally defined as "obstacles, barriers, limitations, impediments, restrictions, and other factors placed in front of individuals either by themselves or by culture, society, or environment" (Edginton, Jordan, DeGraaf, & Edginton, 2002, p. 24). A

number of studies have reported that various factors can inhibit seniors from participating in travel activities, which can be negatively associated with their travel motivation. Thus, the study identifies what are the main travel constraints among the seniors and how they influence travel motivation.

Next, the study investigates QoL as an outcome indicator of senior tourist travel motivation. Recent attention has been paid to tourism as a means of enhancing the level of QoL (Mactavish, MacKay, Iwasaki, & Betteridge, 2007; Uysal, Perdue, & Sirgy, 2010; Sirgy, Kruger, Lee, & Grace, 2011). One of the crucial concerns among seniors is their well-being. Sirgy and Cornwell (2001) argued that tourism is an essential source of QoL. However, very limited research has investigated QoL or well-being as an outcome of travel motivation for the senior population. Iso-Ahola (1989) argued that travel motivational behavior fulfills low or high order-of-need satisfaction dimensions, therefore contributing to a sense of well-being. Self-determination theory also supports that human motivation is essential for facilitating the function of social development and subjective well-being (Ryan & Deci, 2000). Hence, seniors' travel motivations can be related to their QoL or well-being. Furthermore, this study identifies the salient life domain of QoL among the seniors, and examines the effect of satisfaction with salient life domain on overall QoL by applying bottom-up spillover theory.

Last, the study examines the patterns of change in travel behavior of seniors and looks at how these leisure activity patterns moderate the relationship between satisfactions with life domains and overall QoL. During the past decade, researchers paid attention to changes in seniors' leisure activity patterns. For example, Gibson and Yiannakis (2002) examined tourists' role preference over their life span, and showed that while some roles decreased in frequency, others increased variability. The studies suggest that not every senior is likely to participate in

new or additional travel after retiring (Iso-Ahola, Jackson, & Dunn, 1994). Some may continue to participate in previous tourism activities or even reduce activities, while others may start new types of travel depending on the level of constraints such as reduced income, declining health capacity, and loss of significant partners (Hinch & Jackson, 2000; McGuire, 1984; Nimrod, 2008). In light of this, the seniors' leisure activity patterns are examined considering changes in the frequency of travel activity participation after retirement and applying the moderating effect of leisure activity patterns.

1.3 RESEARCH QUESTIONS

Tourism plays a significant role in how senior tourists evaluate their QoL. Thus, understanding the senior citizens' behavior is important in order to improve their QoL Specifically,

1. Research Question 1:
    - Do personal values affect travel motivations of senior tourists?

2. Research Question 2:
    - Do travel constraints affect travel motivations of senior tourists?

3. Research Question 3:
    - Does travel motivation affect satisfaction with life domains of senior tourists?

4. Research Question 4:
    - Does satisfaction with life domains affect overall of senior tourists?

5. Research Question 5:
    - Do the leisure activity patterns of seniors after retirement have a moderating effect on the relationship between satisfactions with life domains and overall QoL?

1.4 THEORETICAL BACKGROUND

The theoretical foundations of this study consists of activity theory, bottom-up spillover theory, the growth needs principle of goal selection in leisure, and self-determination theory. Historically, the pioneering studies of Havighurst (1961) were the first to introduce the activity theory proposing that the well-being of senior citizens is encouraged by high participatory involvement in social and leisure activities. The activity theory has been supported by numerous leisure studies. For example, Menec and Chipperfield (1997) looked at how participation in leisurely activities has a mediating effect between perceived control and well-being in seniors. Their study showed that an internal locus of control is related to participation in leisure activities, and this had an effect on the senior's increased life satisfaction. Another example conducted by Silverstein and Parker (2002) examined whether changes in leisure activities were related to QoL among seniors in Sweden. The results suggested that seniors who increase their participation across different activities were more likely to perceive an improvement in their life satisfaction. Role continuity or replacement by participating in activities leads to a strengthened sense of the individual's sense of meaning or purpose and to the maintenance of self-identity (Atchley, 1989; Lemon, Bengtson, & Peterson, 1972). Often, participating in activities is related to the pursuit of personal achievements or goals; thus, activity participation often contributes to accomplishing said goals (Menec & Chipperfield, 1997; Warr, Butcher, Robertson, & Callinan, 2004). Further, the theory has been developed in regard to three broad types of leisure activity participation—informal, formal, and solitary. Lemon et al. (1972) showed that informal social activity influenced well-being more than formal and social activity.

QoL has been explained and measured by several different theories including telic theory, hedonic theory, desire theory, objective list theory, and top-down versus bottom-up

theory. Hedonic theory supports the belief that the purpose of happiness is to maximize pleasure while reducing pain. Alternatively, according to the desire theory, getting what one wants can result in happiness, and thus lead to a person experiencing a sense of fulfilled desire. This is similar to the idea that happiness has to do with reaching goals, which is posited by telic theories of subjective well-being. According to Wilson (1967, p. 71), "satisfaction of needs causes happiness and conversely, the persistence of unfulfilled needs causes unhappiness."

Despite the evidence suggesting that a number of theories of QoL have been related to needs and goals, many researchers rarely applied telic theories for describing QoL (Diener, 2009). For instance, it is difficult to ascertain if happiness is achieved through the satisfaction or suppression of desires. In contrast to telic theory's position that happiness is a certain-end state, activity theory views happiness as a side-effect of human activities such as hobbies, social interaction, and exercise (Diener, 2009). That is, happiness is a result of behavior as opposed to the goal of an endgame. An individual's personality is believed to impact their reaction to different types of events in the top-down approach to happiness. For instance, Democritus maintained that, "a happy life does not depend on good fortune or indeed on any external contingencies, but also and even to a greater extent on a man's cast of mind." The important thing is not what a person is, but how he reacts to what he already has (Tatarkiewicz, 1976, p. 29). Alternatively, the bottom-up theory is the most popular and widely used theory of the aforementioned (Diener, 1984; Diener, Suh, Lucas, & Smith, 1999; Sirgy, 2002; Sirgy & Lee, 2006). The basic principle of this theory states that a tourist's positive and negative feelings in relation to their travel experiences contribute to their QoL in tourism experiences. Specifically, these feelings may contribute: (1) directly to life satisfaction through leisure well-being or (2) indirectly through enhancing well-being in other life domains such as social life, family, and

leisure life. Thus, the positive effect resulting from travel experiences contributes to a sense of well-being by positively contributing to a variety of life domains. Positive effects in major life domains contribute directly to life satisfaction or overall happiness (Andrews & Withey, 1976; Campbell, Converse, & Rodgers, 1976). For instance, overall subjective well-being is affected by satisfaction with social, health, and leisure life domains. Satisfaction with a particular life domain will be influenced by lower levels of life concerns within that domain (Kruger, 2012).

Self-determination theory is applied to explain the relationship between travel motivation and QoL. Self-determination theory identifies "an individual's evolved inner resources for personality development, and behavioral self-regulation is an approach to human motivation" (Ryan & Deci, 2000). Thus, the theory explores self-motivation's base through people's growth and psychological needs, while identifying what brings about those positive processes. Self-determination theory supports that autonomous travel motivation is associated with positive outcomes such as psychological well-being (Reis, Sheldon, Gable, Roscoe, & Ryan, 2000). Additionally, according to the growth needs principle of goal selection in leisure (Sirgy, 2010), life satisfaction is increased by obtaining leisure travel goals related to growth needs, such as self-achievement and internal motivation, more than basic needs, which implies that the travel motivation of seniors has a positive association with quality of life.

1.5 OBJECTIVES OF THE STUDY

The primary goal of this dissertation is to understand senior tourists' behaviors and their connection to their QoL. Therefore, the research attempts to investigate the senior tourists' behavior including personal values, travel constraints, and travel motivation. Furthermore, the research examines the interrelationships between five main constructs: personal values, travel constraints, travel motivation, satisfaction with salient life domains of QoL, and overall QoL. Furthermore, depending on the seniors' leisure activity patterns, the relationship between their satisfaction with life domains and overall QoL might be different. Therefore, the study also investigates moderating effects of seniors' leisure activity patterns between satisfaction with life domains and overall QoL. There are five specific objectives of this research;

1. To identify seniors' personal values, travel constraints, and travel motivation;
2. To identify relationships between personal values and travel motivation;
3. To identify relationships between travel constraints and travel motivation;
4. To assess the direct effects of travel motivation on satisfaction with life domains; and the direct effects of satisfaction with life domains on overall QoL;
5. To examine the moderating effects of leisure activity patterns between satisfaction with life domains and overall QoL.

1.6 CONCEPTUAL MODEL

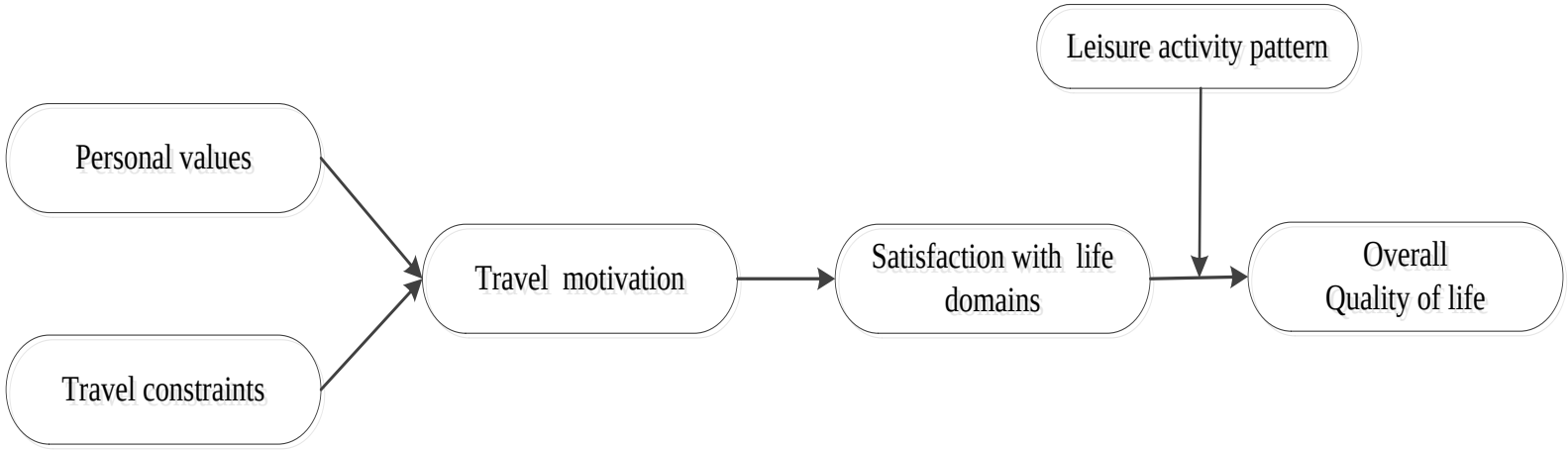


Figure 1. Proposed conceptual model

Drawing on empirical studies as well as concepts and theories, a conceptual model is proposed as shown in figure 1. The factors or constructs in this conceptual model include: personal values, travel constraints, travel motivation, satisfaction with life domains, overall QoL, and leisure activity patterns. The proposed model illustrates the logical relationship of the above constructs by indicating the directions of the causes and effects of the interplay of seniors' travel behaviors and QoL.

1.7 CONTRIBUTIONS OF THE STUDY

Limited prior research exists regarding senior citizens' behavior in the field of tourism. Existing studies of seniors generally focus on descriptive and exploratory studies by examining one or two variables, and most these studies were conducted before 2008. Further, compared to their previous generations, seniors today are more independent, better educated, and have better economic standing and health status (Martin & Preston, 1994). Therefore, this study reexamines seniors' travel behavior and its influences.

Given this situation, it is the right time for academia to investigate emerging markets such as senior tourists, countries with high population of seniors including South Korea.

There are both theoretical and practical potential contributions attributed to this study. First, the study provides an integrated model that explicitly links senior tourists' behaviors, including their perceived personal values, travel constraints, and travel motivations, and these behaviors' links to QoL. Practically speaking, tourism marketers should consider the practical implications of tourists' travel constraints and motivations, both of which can influence satisfaction with life domains and thereby enhance overall QoL. Second, this study investigates senior tourists' QoL from the perspective of satisfaction with specific life domains—including

family, social, leisure, emotional well-being, and health life domains—as determinants of overall QoL. Moreover, the study will help our understanding of seniors' patterns of change in travel behavior and will help us discover how these patterns moderate the relationship between travel motivations, satisfaction with life domains and overall QoL.

1.8 DEFINITIONS OF KEY CONSTRCUTS

Personal values: Rokeach defined values as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence" (1973, p. 5). In this study, personal values are seen as seniors' internal states and underlying values that both affect attitudes and behaviors and guide actions.

Travel constraints : Constraints are defined as "obstacles, barriers, limitations, impediments, restrictions, and other factors placed in front of individuals either by themselves or by culture, society, or environment" (Edginton et al. 2002, p. 24). In this study travel constrains are regarded as many factors can prevent seniors from participation in tourism activities.

Travel motivation: Travel motivation is generally defined as, "psychological/biological needs and wants, including integral forces that arouse, direct, and integrate a person's behavior and activity" (Yoon & Uysal, 2005, p.46). In this study, travel motivation is regarded as senior tourists' socio-psychological motives that predispose the individual to travel.

Quality of life: Overall life satisfaction is functionally related to satisfaction within a number of life domains (Sirgy, 2002). In other words, quality of life is an umbrella concept that refers to all aspects of a person's life including physical health, psychological well-being, and

social well-being (Dolnicar, Lazarevski, & Yanamandram, 2012). QoL is defined based on the multidimensional nature of the concept. Thus, QoL is measured in terms of satisfaction with specific life domains including family, social, emotional, leisure, and health life as well as overall QoL.

Leisure activity pattern: Leisure activity patterns refer to the patterns of change in travel behavior of seniors over the life span. After retirement, some may continue to participate in previous tourism activities or even reduce activities, while others may start new types of travel (Hinch & Jackson, 2000; Nimrod, 2008). Senior leisure activity patterns are examined considering changes in the frequency of their travel activity participation after retirement.

1.9 CHAPTER SUMMARY

The first chapter of this study provided an overview of the study including the statement of the problem in the QoL area, theoretical background of the problem, the research questions, the theoretical framework of the study, and the theoretical model that is based on the study. In the second chapter, a review of the relevant literature is presented.

CHAPTER TWO: LITERATURE REVIEW

2.1 INTRODUCTION

The purpose of this literature review is to assess studies that have previously explored a given, relevant topic of this study. The purpose of this dissertation is to understand seniors' travel behaviors by focusing on their perceptions of personal values, travel constraints, travel motivation, leisure activity patterns, satisfaction with life domains, and overall Quality of Life (QoL). Therefore, this chapter defines the current level of knowledge regarding the theoretical and conceptual research of seniors' travel behaviors and QoL.

Specifically, this literature review consists of five sections. First, this chapter reviews previous tourism literatures on seniors' travel behaviors in general. In the next two parts, the concept of personal values, travel constraints, and travel motivation are investigated within the tourism context among senior tourism. In the fourth section, the seniors' QoL is examined along with its relationship with travel motivations. Specifically, this section examines the concept of QoL, salient life domains of seniors, measurement of QoL, and the relationship between travel motivation and QoL. In the final part, the leisure activity patterns of post-retirement seniors are reviewed.

2.2 REVIEW OF TOURISM STUDIES ON SENIOR TRAVEL BEHAVIOR

As the number of seniors is increasing and projected to increase continuously between 2000 and 2050, the demand for tourism activities has grown in our society. Spending time in tourism activities can be considered an essential component of life for improving emotional and physical well-being (Janke, Davey, & Kleiber, 2006) and achieving a successful retirement (Silverstein & Parker, 2002). Since the senior market has been important area of interest to tourism industry, it is essential to understand senior travel behavior. There is relevant research that betters our understanding of senior travel-related behaviors.

The previous literature studied senior travel-related behaviors, focusing especially on tourist motivation (e.g, Hsu, Cai, & Wong, 2007; Fleischer & Pizam, 2002; Jang, Bai, Hu, & Wu, 2009; Lee & Tideswell, 2005; Sangpikul, 2008), socio-demographic characteristics (e.g., Chen & Wu, 2009; Capella & Greco, 1987), travel-related activities (e.g., McGuire et al.,1988; Wei & Milman, 2002; Lehto, Jang, Achana, & O'Leary, 2008), destination choice (e.g., Shoemaker, 2000), travel constraints (e.g., Lee & Tideswell, 2005; Huang & Tsai ,2003), and well-being (e.g., De Vos, Schwanen, Van Acker, & Witlox, 2013; Kim et al, 2015). For instance, a study by Boksberger and Laesser (2009) used travel motivations to analyze Swiss senior tourists. The segmentation they devised was composed of three individual groups: ‘grizzled explorers’, ‘time-honored bonvivants’, and ‘retro travelers’. ‘Grizzled explorers’ is the group who wants to experience natural landscapes, make new friends, and have time for family. ‘Time-honored bonvivants’ are those motivated by a desire for renewal away from their daily home routine and job, enjoying the sun and beach, and spending time with family and partner. The last group, ‘retro travelers’, likes to experience something new and actively participate in sports. In a different study, Chen and Wu (2009) profiled senior tourists based on their psychographic and

demographic features; their results revealed six markets. These markets were separated by the holiday attractions, travel motivations, and information sources that seniors employed when making holiday plans. Seniors have bucked the misconception of them as a uniform, conservative market, and this has significant implications for marketing and products. Jang, Bai, Hu, and Wu (2009) found that seniors' motivational factors turned out to be 'novelty seeking', 'self-esteem', 'ego enhancement', 'socialization', and 'rest and relaxation'. Furthermore, there are several studies that research seniors' travel destination choices (e.g., Zimmer, Brayley, & Searle, 1995; Shoemaker, 2000). For instance, Vincent and Santos (1990) found that destination attributes such as 'climate', 'friendliness', 'family', 'friends', 'cost', 'culture', 'geographic beauty', and 'proximity' were the most important in influencing seniors' winter traveler to Texas. In a different study by Chon (1990), package tours proved a popular and useful promotional tool for destination marketing.

Furthermore, several studies attempted to examine the relationship between seniors' leisure activity and quality of life using psychosocial theories such as disengagement theory, activity theory, and continuity theory. Havighurst and Albrecht (1953) proposed activity theory explaining the seniors' leisure activities. They argued that an increase in time availability enabled seniors to maintain higher activity levels or roles, which are important for improving their life. Cumming and Henry (1961), on the other hand, proposed the disengagement theory. Given that a reduction in activity is a natural part of aging, the researchers postulated that older adults gradually choose to step back from an active life in order to emphasize inner fulfillment. In other words, reducing involvement in leisure and social activities contributes to more life satisfaction in later phases of adulthood (Der Ananian & Janke, 2010). Continuity theory can be used to explain normal aging's positive outcomes—such as health care, transportation, and

leisure/recreation—that occur because individuals consistently apply evolving strategies in order to adapt to the changes consistent with older age.

In the leisure industry, a number of studies have supported activity theory by demonstrating that a retired senior's participation in an activity contributes to his or her subjective well-being (e.g., Fernandez-Ballesteros, Zamaron, & Ruiz, 2001; Menec & Chipperfield, 1997; Riddick & Stewart, 1994; Silverstein & Parker, 2002). For instance, Heo, Stebbins, Kim, & Lee (2013) segmented three groups based on patterns of serious leisure involvement and examined relationships among the clusters of life satisfaction, health, and membership in serious leisure. The results suggested that the level of involvement in serious leisure had a positive impact on life satisfaction and health. Another example, conducted by Yin (2008), looked at the lives of retired seniors in Hong Kong's Aldrich Bay and examined both perceived leisure constraints and the contribution of leisure satisfaction to life satisfaction. The results showed that leisure life satisfaction helped these seniors to improve their overall life satisfaction. However, in the tourism industry, limited studies have focused on how seniors' travel experiences or activities affect their QoL or well-being (e.g., Kim et al., 2015; Lee & Tideswell, 2005; Milman, 1998; Wei & Milman, 2002). For example, Kim et al. (2015) examined the relationships between involvement in tourism activity, perceived value, satisfaction with trip experience, leisure life satisfaction, overall QoL, and revisit intention among seniors. The results showed that the level of involvement of senior tourists positively affects their overall QoL and revisit intention. A study conducted by Milman (1998) also identified the impact of travel experience on the subjective well-being of senior tourists. The results indicate that travel experience may change the level of happiness after the trip. Table 1 summarizes the previous findings about senior tourists' behavior.

Table 1. Summary of review of tourism studies related to senior tourists' behavior

#	Author and Date	Purpose	Sample / Data collection	Notes on results
1	Jang, Bai, Hu, & Wu (2009)	To investigate seniors' affect and travel motivation and effects of affect and motivation on travel intentions	282 Taiwanese the seniors in 13 senior service centers are included. Age: 65 or greater	Motivation factor: novelty seeking, self-esteem, ego enhancement, socialization, rest and relaxation. Novelty seeking as the most important travel motivation factor from five extracted factors.
2	Wei & Milman (2002)	To examine the relationships between senior tourists' participation in activities while on vacation, their overall satisfaction with their travel experiences, and their psychological well-being	300 senior tourists traveling on several 7-day North American escorted tour itineraries, organized are included Age: Not Mentioned	Preferred Activity: sightseeing in cities, dining in restaurants, shopping, touring the countryside, visiting casinos or gambling, visiting national parks, art gallery or museum, amusement or theme parks, concert, play, or musical.

3	Shoemaker, (1989)	To segment senior group based on travel motivation	407 senior traveler who lives in Pennsylvania are included Age: 55 or older.	Cluster 1: family Tourists (spend time with their immediate families), Cluster 2: Active Resters (Seek spiritual and intellectual enrichment; to meet people and socialize, rest and relax; to escape the everyday routine; to engage in physical activities; and to visit historic sights), Cluster 3: Older Set (pleasure travel)
4	Lee & Tideswell (2005)	To understand attitude towards leisure travel and constraints behavior of senior Koreans.	200 Korean residents are included Age: 55 or older.	Motivation: "experience natural attraction" was the most popular motivations. The study results in four segmented group. Cluster 1: Quality of life seeking traveler, Cluster 2: constrained traveler, Cluster 3: Ambivalent traveler, appeared to be acting as psychological barriers to travel.
5	Lehto, Jang, Achana, & O'Leary (2008)	To pursue a comparative assessment of the Baby Boomer generation and the Silent Generation in the tourism experiences sought and actual vacation activities	2260 responses from the US respondents are included. Age : The Silent Generation cohort - respondents	The findings showed that differences in cohort-induced lifestyles and values permeate into vacation experience and activity. 'To spend quality time with the family away from home'; 'for intimacy and romance'; and 'to experience adventure and excitement' were favored by the Baby Boomers. On the other hand, 'to visit casinos and gamble'; 'to experience the good life with fi ne cuisine, good wine, being pampered'; and 'to escape winter weather' were choices of the Silent Generation.

			born between 1925 and 1945. Baby Boomers cohort - born between 1946 and 1964.	
6	Boksberger & Laesser (2009)	To segment Swiss senior tourists on the basis of their travel motivation	1100 Swiss residents as well as foreigners having lived in Switzerland are included Age: 55 or older.	Cluster 1: Grizzled explorers (predominantly motivated by visit and experience sights and culture, experience landscapes and nature, make contact with new people, and time for the family. Cluster 2: Time-honored bonvivants (get away enjoyment of comfort and pampering, regeneration from daily home routine and job, sun and beach, time for partner, and time for oneself. from it all, liberation from obligations, incorporating) Cluster 3: Retro travelers (see and experience something new, sports (active), and other as the predominant ones.)
7	Silverstein & Parker (2002)	To examine the effect of leisure activities on life condition.	324 older Swedes living in the community were included. Age: 65 or over	'culture-entertainment', 'productive personal growth', 'outdoor-physical', 'recreation-expressive', 'friendship and formal-group' were important domains

8	Heo, Stebbings, Kim, & Lee (2012)	To identify distinct groups based upon patterns of serious leisure involvement and examine relations among life satisfaction, health, and membership in serious leisure clusters were documented.	454 older adults from two annual events: the 2008 Indiana Senior Olympic Games and 2008 Colorado Senior Olympic Games were included. Age: 65 or over	Cluster 1: High involvement group. Cluster 2: Medium involvement group, Cluster 3: Low involvement group The results revealed significant differences among three clusters and also showed that there are positive relationships between level of involvement in serious leisure and life satisfaction and health."
9	Kohlbacher & Chéron (2012)	To aim at a better understanding of Japanese older consumers through cognitive age, health condition, financial status, and personal values	316 female respondents in Japan were included. Age: 50 or over	"warm relationships with others", second importance to "security", and third importance to "fun and enjoyment in life" are the important values and "excitement", "fun and enjoyment in life", and "sense of accomplishment" were showing a significant decrease of importance with higher cognitive age groups.

10	Nimrod (2007)	To examined patterns of continuity and change in leisure behavior of recently retired individuals	383 Jewish retirees were included. Age: 50 to 85.	The study measured the differences among four defined groups: reducers, concentrators diffusers and expanders, and compared their leisure participation and life satisfaction. The results indicated that the expanders and the concentrators had a significantly higher life satisfaction.”
11	Janke et al. (2006)	To examine changes in three domains of leisure	1911 individuals (American) were included. Age: over 50	The results showed that while no change occurred over time on average within domains, significant individual differences were found in these patterns across all domains.
12	Pennington-Gray & Kerstetter (2002)	To determine whether the three types of constraints (intrapersonal, interpersonal, and structural) existed in the context of nature-based tourism.	474 interviews in Indiana, Illinois, Minnesota, Michigan, Ohio, Wisconsin, and Ontario, Canada. The TTRRC were included Age: 18 or older	The findings indicated that differences existed with regards to age and family life cycle stage.

13	Yin (2008)	To examine the perceived leisure constraints of retired elderly people in Aldrich Bay and the contribution of leisure satisfaction to the life satisfaction among them	120 retired elderly people in Aldrich Bay were included. Age: 60 to 90.	Physiological constraint was the most travel constraints among the seniors and enhancing the senior satisfaction would help them to improve their life satisfaction.
14	Fleischer & Pizam (2002)	To identify factors which affect their decision to take vacations for differing lengths of time	The data for this study were extracted from a larger national survey that examined the tourism activities of the Israeli population Age: 55 and older	The study revealed tourism motivation was found to be a function of income and health, but their trip duration changes with age. Between the age of 55 to 65 expanding leisure time and increased household income cause an increase in the number of vacation days taken.
15	Blazey (1992)	To examine the relationship	1350 individuals	Four separate analyses examine the relationship between known retirement status and constraints to travel activity; use of various

		between retirement and older adult travel activity	drawn from a nationwide panel developed by NFO Research was included. Age: 50-85	forms of travel information; travel characteristics, and participation in travel related activities. A number of similarities and differences emerge from this examination. Travel neither becomes more nor less frequent after retirement and interest appears constant. Where differences in travel activity do occur, work force involvement and age may be underlying causes.
16	Hsu, Cai, & Wong (2007)	To examine motivation of senior tourism in China	27 personal interviews were conducted in the capital city of Beijing, and the trendsetting city of Shanghai. Age: 55 for females (official retirement age) 60 for males were included.	Using basic psychological theories on aging and motivation and adopting the grounded theory approach, the study proposes a tourism motivations model for Chinese seniors. The model consists of two main components: (1) external conditions include 'societal progress', 'personal finance', 'time', and 'health', of which personal finance and time are mediated through family support and responsibility; (2) internal desires include 'improving well-being', 'escaping routines', 'socializing', 'seeking knowledge', 'pride and patriotism', 'personal reward', and 'nostalgia'.

17	McGuire, Uysal, & McDonald (1988)	To identify types of trips by the elderly and sources of information	Total 1256 in US were included. Age: 65 or older	Senior individuals appear to make greater use of travel agents. Media use such as television and newspapers, varied by type of trip.
18	Bai, Jang, & Liping (2008)	To investigate travel behavior patterns of international senior tourists to the United States	1,620 elderly pleasure tourists were from the three most important Sources of inbound tourists to the U.S.: Japan (1,013), the United Kingdom (274), and Germany (273). Age: 55 or older	The results show that in comparison more Japanese senior tourists prefer package tours whereas in the UK and Germany senior tourists tend to take more non-package tours. The number of people in the travel party and the length of trip were found significantly different in travel mode choice for all three senior markets.

19	Chen & Wu (2009)	To investigate the influences of travel motivations, travel constraints, and Demographic variables on seniors' overseas travel intentions	224 Taiwanese were included. Age: 50 or older	The results from the logistic regression analysis showed that the main factors predicting seniors' overseas travel propensity include age, income source, employment status, relaxation motive, novelty motive, socialization motive, and personal reasons constraint.
20	Horneman, Carter, Wei, & Ruys (2002)	To describe a study profiling senior travelers according to their demographic and psychographic characteristics	3,000 Australian were included Age: 60 or older	Six market segments were used to highlight the differences that exist in terms of holiday attractions, travel motivations, and information sources used among senior travelers when planning and choosing a holiday. Seniors are shown not to be a uniform conservative market, which has implications for marketing and product development.
21	Nimrod (2008)	To examines central themes in traveling retirees' perceptions of tourism and travel. It aims to understand the place and value of tourism in retirement	20 male and female retirees involved in a ''Learning in Retirement'' program in a mid-sized southeastern U.S. city were included in in-depth semi-	Results identified five themes, associating post retirement tourism not only with the new life phase, but also with lifelong interests, leisure activities, retirees' social networks and perceived constraints. These findings are discussed in light of general theories of adaptation and aging.

			structured Interviews Age: Retirees	
22	Huang & Tsai (2003)	To examines the senior travel market and its behavior. Ridit analysis is used to explore the destination selection attributes of senior travelers.	284 from Kaohsiung elder activity institutions were included. Age: 55 or older	Three travel barrier factors were derived using factor analysis; the traveler capabilities, direct travel suppliers and indirect travel motivators. Senior travel satisfaction was explored based on tour related and tour staff service dimensions. This study offers some recommendations as to marketing techniques and means of extracting profit as a competitive strategy for traditional travel agents.
23	Sangpikul (2008)	This study applies the conceptual framework of push and pull motivations to investigate travel motivations of Japanese senior travelers to Thailand	425 Japanese senior travelers to Thailand were included. Age: 55 or older	Three push and four pull factor dimensions are identified. The three push Factors are labeled ‘novelty and knowledge seeking’, ‘rest and relaxation’ and ‘ego-enhancement’. while the four pull factors are ‘cultural and historical attractions’, ‘travel arrangements and facilities’, ‘shopping and leisure activities’ and ‘safety and cleanliness’. Among them, ‘novelty and knowledge-seeking’ and ‘cultural and historical attractions’ are regarded as the most important push and pull factors respectively. The results of multiple regression analysis indicate that psychological well-being (i.e. positive affect) and education are the two factors influencing travel motivations of Japanese senior travelers to Thailand

24	Romsa & Blenman (1989)	To understand vacation pattern of elderly Germans. Specially, the influence of age and environmental factors on tourist participation is examined by comparisons of the behavior of four specified age groups.	3512 Germans were included. Age: 14 or older	Motivations inducing tourist travel were found to be similar across age cohorts. Spatial patterns are found to vary as the result of the interaction between the aging process and environmental forces. The elderly tended to seek less stressful modes of transportation and vacation habitats.
27	Chen & Shoemaker (2014)	This study employed time-series data along with the life cycle theory, and continuity theory to analyze the psychological characteristics and travel behavior of American senior leisure tourists.	Using empirical data collected in 1986, 1996, and 2006.	The findings supported the applicability of life cycle theory. The results shows that the difference age group has difference travel behaviors.

2.3 TRAVEL MOTIVATION

Understanding travel motivation that affects travel decisions and consumption behavior assists tourism providers in effectively marketing tourism services and destinations (Gee, Choy, & Makens, 1984; Uysal & Hagan, 1993). Tourist motivations are a fundamental motive for behavior (e.g., Mayo & Jarvis, 1981; Pearce & Caltabiano, 1983; Oliver, 1980) and essential for understanding the decision-making process (e.g., Dann, 1981; Sirakaya & Woodside, 2005; Ross & Iso-Ahola, 1991).In terms of a practical perspective, motivation research is important for marketing tourism experiences, evaluating service delivery for travel experiences, and designing tourism products and attractions. Many studies have endeavored to measure motivation in order to identify tourist types (e.g., McIntosh, Goeldner, & Ritchie, 1995) and preferences, and even leisure activity patterns (e.g., Crompton 1979).

Travel motivation is generally defined as, "psychological/biological needs and wants, including integral forces that arouse, direct, and integrate a person's behavior and activity" (Yoon & Uysal, 2005, p.46). Several studies have suggested that motivation sheds light on the gravity of the psychological determinants of demand in explaining both why people travel in general and why they select particular destinations. There are a number of theories intended to explain tourist motivations, such as the push–pull model (e.g., Crompton, 1979; Jang & Cai, 2002; Uysal & Jurowski, 1994), the travel career ladder (e.g., Pearce & Lee, 2005), intrinsic-extrinsic motivation (e.g., Pearce, 1993), means-end theory (e.g., Olson & Reynolds, 1983), and the functional theory (e.g., Fodness, 1994; Katz, 1960). A predominate paradigm for explaining the concept of motivations within the tourism context has been the push-pull theory (e.g., Uysal, Li & Sirakaya-Turk, 2008; Dann, 1981; Crompton 1979). Its basic premise is that people are pushed into participation by a need to seek excitement; at the same time, they are pulled in by the

qualities of a particular destination. A destination's pull motivations are believed to be location-specific, whereas push motivations are more general in nature and have the possibility of being fulfilled by a variety of different activities (e.g., Crompton 1979; Iso-Ahola, 1990).

Fundamental works by Dann (1981), Crompton (1979), and Iso-Ahola (1989) provided support for further research on tourism motivations. A number of studies have tried to examine push and pull motivation in various settings, such as by segmenting nationality (e.g., Cha, McCleary, & Uysal, 1995; Hanqin & Lam, 1999; Yuan & McDonald, 1990), destinations (e.g., Jang & Cai, 2002), satisfaction and destination loyalty (e.g., Yoon & Uysal, 2005), senior citizens (e.g., Jang & Wu, 2006), and events (e.g., Lee, Lee, & Wicks, 2004; Nicholson & Pearce, 2001). Furthermore, tourist motivation has been studied extensively in various fields including rural tourism (e.g, Park & Yoon, 2009), pleasure tourism (e.g., Cromption, 1979; Dann, 1981), and special-event planning (e.g., Backman, Backman, Uysal, & Sunshine, 1995).

Elsewhere, Katz (1960) introduced a functional theory that postulates that not all tourists share the same motivations when pursuing a certain behavior. Therefore, different dimensions of motivation can affect determining behaviors, and diverse motivations act as catalysts to serve human psychological needs and wants that generate a state of tension within individuals (Crompton & McKay, 1997; Fodness, 1994; Houle, Sagarin, & Kaplan, 2005). It is assumed that seniors' travel motivations can be different from those of younger tourists. Several studies have examined senior tourist motivations in the tourism field (e.g., Chen & Wu, 2009; Huang & Tsai, 2003; Jang & Wu, 2006). Jang et al. (2009) found that 'novelty seeking', 'self-esteem', 'ego enhancement', 'socialization', and 'rest and relaxation' were important motivations for senior tourists—with 'novelty seeking' ranking as the most important. Lee and Tideswell (2005) found that the most common travel motivation for seinors is the desire to

experience natural attractions. Huang and Tsai (2003) study showed that ‘meeting new people’, ‘relaxation’, and ‘spending time with family’ were considered major motivational factors for senior tourists.

Based on comprehensive literature reviews of these previous studies, the study found that that the most common travel motivations for a senior can include relaxation (e.g., Chen & Wu, 2009; Jang et al.. , 2009; Tung & Ritchie, 2011), socialization (e.g., Jang et al., 2009; Wei & Milman, 2002), ego-enhancement (e.g., Sangpikul, 2008; Jang et al., 2009), novelty (Chen & Wu. 2009; Iso-Ahola & Crowley, 1991), and health (e.g., Hsu et al., 2007; Sirakaya, McLellan, & Uysal, 1996). Moreover, seniors are likely to be motivated by pull factors such as natural resources, historical sites, and facilities (e.g., Anderson & Langmeyer, 1982; Wei & Milan, 2000; Williams & Zelinsky, 1970), and event and cost (e.g., Sirakaya et al., 1996). In terms of Maslow’s hierarchy, senior tourist motivations exist on the higher level of needs (Csikszentmihalyi & LeFevre, 1989; Maslow et al., 1970). Cordes & Ibrahim (1999) put forth both that seniors’ leisure motivations should be placed above physiological needs and that higher-order needs—including self-satisfaction and personal potential—can be satisfied by travel and the leisure.

2.4 PERSONAL VALUE

The concept of personal values has been studied by many disciplines, including sociology and psychology, in order to understand consumer behavior (Kamakura & Novak, 1992; Vinson, Scott, & Lamont, 1977). According to Schwartz and Bilsky (1990), values are regarded as "cognitive representations of universal human requirements: biological needs, social interactional requirements, and social institutional demands on the individual." Furthermore, understanding values helps individuals evaluate their interpersonal relations since values function effectively as the criteria for conduct (Williams, 1968). Rokeach (1973, p.5) defined values as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence". Thus, personal values are generally conceived as abstract beliefs within one's cognitive system, which in turn affect attitudes and behaviors and guides actions (Eagly & Chaiken, 1993; Rokeach, 1973). Values differ from attitudes in that they are broader; attitudes are related to specific situations, whereas values function on an abstract, basal level. Furthermore, values top the hierarchy within a person's cognitive system (Kamakura & Novak, 1992).

Prentice (1987) argued that values can be explained in terms of subjectivity and objectivity. These schools establish two dimensions of value—external and internal—depending on the locus of control. External values are object-directed and stem from goals and situations. The objects that external values are directed towards are often tangible, particularly if they satisfy needs of self-esteem and belonging (Gnoth, 1994). Conversely, internal values stem from expectation-oriented intentions. As such, the locus of control lies with the self (Gnoth, 1997). Rokeach (1968) assigns values to hierarchical groups of beliefs using preferable end-states of

existence (terminal/external values) or preferable modes of behavior (instrumental/internal values). Terminal values include items such as ‘salvation’, ‘social recognition’, ‘inner harmony’, and ‘an exciting life’. On the other hand, examples of instrumental values include ‘being logical’, ‘loving’, ‘ambitious’, ‘imaginative’, and ‘intellectual’ (Rokeach 1973). Based on this foundation, market researchers use values as a means to better understand consumer behaviors (Lowe & Corkindale, 1998; Rohan, 2000; Kahle 1983).

Although the important role of values in predicting tourist behavior is recognized, values have received limited empirical attention in the tourism field (Tkaczynski & Prebensen, 2012). For example, Boote (1981) segmented fast-food restaurant patrons according to their individual value orientation in the context of hospitality. Mehmetoglu, Hines, Graumann, and Greibrokk (2010) segmented 1,000 Norwegians based on their personal values and examined the differences in their travel behavior. These segmented groups were labeled as ‘traditional idealists’, ‘modern idealists’, ‘traditional materialists’, and ‘modern materialists’. The findings revealed that the segments statistically differed in travel behavior. Take the example of traditional and modern idealists. They are more likely than the traditional and modern materialists to be activated by hedonistic travel motives. Since personal values influence attitudes and the perception of social norms, the study assumes that the evolution of personal values determines tourists’ behaviors such as travel motivation. In the tourism literature very limited research has been devoted to understanding the issue of personal values of the senior tourists (e.g., Cleaver, Muller, Ruys, & Wei, 1999; Kohlbacher & Chéron, 2012). Using the categories of cognitive age, health condition, financial status, and personal values Kohlbacher and Chéron (2012) examined the consumption patterns of Japanese seniors. The results showed senior respondents assigned the top personal values to ‘warm relationships with others’, the

secondary ranking to ‘security’, and these were followed by ‘fun and enjoyment in life’. The value of ‘excitement’, ‘fun and enjoyment in life’, and ‘sense of accomplishment’ show a significant decrease in importance among higher cognitive age groups.

The growing interest in senior tourist behavior needs to be explained by considering the influence of personal values. In response to this shortcoming, the study examines senior tourists’ personal values and their influences. According to Hofstede and Hofstede (2005), values are the root of culture and human nature and thus are both indicative and predictive of various aspects of human behavior (Homer & Kahle, 1988). Several studies argued that there is a direct connection between personal values and behavior (e.g., Ateljevic, 1997; Gutman, 1990; Corfman, Lehmann, & Narayanan, 1991). For instance, Ateljevic (1997) argued that values acquired in everyday life assist in the production of motivations. Ateljevic further examined the impact the value system has on travel motivation, and strived to describe how situational influences impact tourist motivations. Results showed that urbanization and industrialization developed “green values,” or an “environmental consciousness,” in countries that fostered tourists’ wishes to find a genuine natural environment in New Zealand. In the process of developing motivation, values, which serve as guidelines for responding to stimuli (Kahle, 1983), aid in evaluating the potentiality of objects, situations, or events in the tourism context and destinations. Perceived from the vantage point of the operationalization of social and cultural factors, values can be viewed as signs of the external environment that influence one’s motivation from a sociological perspective.

Personal values have been measured in numerous studies using a variety of methods. Rokeach (1973) developed ‘Rokeach’s value survey’ (known also as RVS), which has been the widely used scale measurement in value-related research. The RVS consists of instrumental and terminal values. While instrumental values measure modes of conduct including ambitiousness,

broadmindedness, and politeness, terminal values define the individual's desired end-state of existence, including the individual's sense of accomplishment and well-being. The survey instructed respondents to rank values within these sets in regards to their importance as guiding principles in their lives. Pitts and Woodside (1986) used the RVS to observe the association between values and the attributes that a tourist thinks are important for traveling. Values turned out to be related to differences in choice criteria and actual behavior. Although RVS has been used as a useful basis for evaluating values, it has been criticized by many researchers due to its difficulties in ranking many (36) items, its lack of relevance to daily life, the information loss due to the ordering process, and so on (Beatty, Kahle, Homer, & Misra, 1985; Madrigal, 1995).

Alternatively, a number of studies started to use other measures including The List of Value (LOV) and Values and Lifestyles (VALS). LOV is the most frequently used for measuring values because of its narrowed focus and its strong relation to both daily life and consumer behavior (Novak & MacEvoy, 1990). LOV consists of nine terminal values, developed mainly from Rokeach's 18 terminal values and Maslow's hierarchy of needs (Feather, 1986) in values research. This measure assesses nine key concepts: 'self-respect', 'warm relationships with others', 'a sense of belonging', 'being well-respected', 'fun and enjoyment in life', 'self-fulfillment, 'a sense of accomplishment', 'excitement', and 'security'. LOV has become the predominant instrument currently employed in value research and has been used to examine tourism-related behavior. For instance, Bloeme and Dekker (2007) used the LOV scale to examine the effects of personal values on customer satisfaction. Another study by Ekinci and Chen (2001) used a modified version of the LOV scale and segmented a sample of British tourists visiting Turkey into two clusters: agenda achievers and relationship seekers. The former were more likely to seek value concerning accomplishment, whereas the latter were more likely

to consider warm relationships with others as important. The researchers further compared these two segments based on a set of demographic and trip characteristics. Their findings suggested that agenda achievers and relationship seekers statistically differed among several of these characteristics. This study uses the LOV scale to measure underlying personal values of senior tourists. Based on previous literature reviews, following hypothesis is stated.

Hypothesis 1: Personal values have a positive influence on the travel motivation of senior.

2.5 TRAVEL CONSTRAINTS

Along with understating travel motivation and personal values of seniors, a number of studies suggest that it is crucial to acknowledge travel constraints that inhibit seniors from traveling. Various constraints may reduce seniors' travel motivation and even prevent seniors from participating in travel activities, and these in turn function as filters for tourism demand (McGuire, 1984; Nyaupane & Andereck, 2007). Constraints are regarded as "obstacles, barriers, limitations, impediments, restrictions, and other factors placed in front of individuals either by themselves or by culture, society, or environment" (Edginton et al. 2002, p. 24). Studies have revealed that various factors can prevent tourists from participating in tourism activities (e.g, (Blazey, 1987; Mayo & Jarvis, 1981). A study by Crawford and Godbey (1987) was the first leisure constraints model and Crawford, Jackson, and Godbey (1991) further modified the original model. As shown in figure 2, Crawford et al. (1991) identified three major hierarchical dimensions of constraints through the comprehensive literature review; intrapersonal constraints, interpersonal constraints, and structural constraints. The constraints range in sequence of importance from most proximal or intrapersonal to most distal or structural (Pennington-Gray &

Kerstetter, 2002, p. 419).

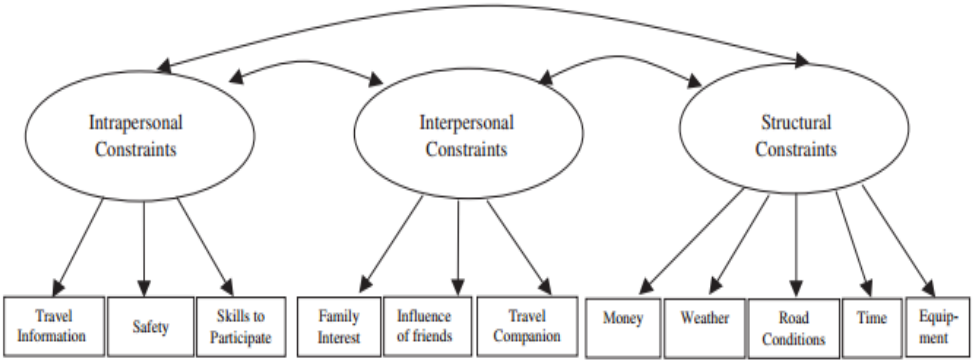


Figure 2. Model for the three leisure constraints

Intrapersonal constraints are viewed as individual inner states that influence preference, rather than intervening between preference and participation, and lead to nonparticipation (Crawford & Godbey. 1987). Examples of these constraints include 'lack of interest', 'safety' and 'perceived self-skill'. Interpersonal constraints involve more external factors which prevents an individual from participating in activities that involve at least one partner or friend for a co-participant. Example of interpersonal constraints can be 'unavailability of travel companion' and 'family disapproval'. Different from intrapersonal constraints, interpersonal constraints interrelate with both preferences and participation. Structural constraints are the intervening features between preference and participation (Crawford & Godbey 1987). Examples of structural constraints include 'lack of time, money', 'no accessibility of information', and 'weather condition' (Walker & Virden 2005).

In addition, several studies examine travel constraints of senior group specifically. For example, according to Rose and Graesser (1981), the most common constraints for senior

tourists are ‘lack of appropriate time’, ‘financial difficulties’, ‘family responsibilities’, and ‘health condition’. Mayo and Jarvis (1985) and McGuire, Dottavio, and O'Leary (1986) have found that ‘expense’, ‘time convenience’, ‘physical and emotional costs’, ‘lack of information’, ‘health status’, and ‘perceived disability’ are the most often cited constraints for seniors. Hong, Kim, Jang, and Lee (2006) examined the likelihood of traveling and actual tourism expenditures among seniors. The results showed that ‘health care expenditures’ and ‘household income’ influence significantly on actual tourism expenditure. These results imply that financial factors are one of the essential parts of travel planning for seniors. More recent studies by Lee and Tideswell (2005) and Fleischer and Pizam (2002) showed that some of the major constraints include ‘lack of information’, ‘lack of social networks’, ‘physical and emotional costs’, ‘low energy’, ‘disability’, and ‘insufficient money’.

As of late, retirement pensions and insurance have improved the economic situations of many senior citizens. This, combined with better healthcare and nutrition—which contribute to longevity, warrant a new study on the constraints and barriers for seniors hoping to travel. Thus one of the objectives of this study is to identify what the travel constraints are for Korean seniors and what factor influence negatively travel motivation.

Hypothesis 2: Travel constraints have a negative influence on the travel motivation of senior.

2.6 QUALITY OF LIFE

2.6.1 Concept of Quality of Life (QoL)

The concept of QoL has long been debated by a number of researchers because there is a degree of ambiguity in capturing its meaning. Hence, there are over a hundred definitions for QoL in the literature (Costanza et al., 2008). Each discipline considers the QoL in slightly different terms, employing concepts like happiness, well-being, quality of life, and life satisfaction (Gilbert & Abdullah, 2004). Maslow (1968), who developed the measurement scales for happiness and well-being based on the concept of human needs, characterized a good life as a fulfillment of needs, which he arranged in a hierarchy of five categories: 'physiological needs', 'needs to safety', ' belonging and love', 'esteem', and 'self-actualization'. Shin and Johnson (1978) have defined QoL as happiness as "an overall assessment of a person's QoL according to his own chosen criteria" (p. 478).

Earlier efforts to measure QOL originated from the social indicators movement which emerged in the late 1960s (Sheldon & Parke, 1975). QoL can be examined in terms of levels of units (individual, community, or population), assessments (subjective or objective indicators), and indicators (reflective or formative indicators) (Sirgy, 2001).

First, unit of analysis can be different depending on the perspective of the study, as it can be on an individual, community, or country level. The present study focuses on the senior population at individual level. At the individual measurement level QoL can be explained in terms of its nature of (1) objectivity or subjectivity and (2) reflective or formative indicators (Sirgy, 2001). An objective QoL dimension focuses on social indicators usually collected by national or government organization including financial status (e.g. household income), social condition (e.g. crime rate and pension system), physical condition (e.g. body mass index) to

examine the QoL of individuals. One of the advantages of using objective indicators is consistency over time and longstanding. Individual's experiences of those objective facts do not depend on their perception (Kruger, 2012). However, objective indicators often do not capture accurately self-reported experiences or perceptions. Insufficient measures of well-being include items such as per capita GDP and other related measures of income (Andrews & Withey, 1976). In contrast, subjective indicators of QoL rely on individual's perception and experience of their life. Even though subjective indicators appear to be lower in scientific credibility, the strength of it is to capture people's perception or experience that are important to their life. Subjective measures are more easily to compare across domains in contrast of objective measures by measuring perception of QoL by degree of satisfaction (Diener & Suh, 1997; Phillips, 2006).

Reflective indicators capture uni-dimensionality of the construct in proximate fashion and the societal measure of QOL measures life satisfaction in global (e.g., on the whole, are you very satisfied). The measure is not a combined measure of several other, but it measures dimensions of the constructs. On the other hand, the perspective of formative indicators considers that because of the multidimensional construct, the best form of measurement comes from a composite of the related dimensions. For example, Lu and Argyle (1991) measured QoL by applying the formative indicators and QoL is composed of 'happiness', 'life satisfaction', and 'absence of ill being'.

Spillover effects can further explain the overall assessment of life satisfaction. The number of recent measures of QoL stresses the multidimensional nature of the concept. In terms of the multidimensional perspective, overall quality of life is influenced by satisfaction within a number of individual's life domains (Lee, Sirgy, Larsen, & Wright, 2002). The spillover effects of major life domains—such as leisure, social, and finance—on overall life satisfaction are

recognized in the literature (Neal et al., 1999). This perspective of QoL can be supported by bottom-up spillover theory (e.g., Diener, 1984; Diener, Suh, Lucas, & Smith, 1999; Sirgy, 2002; Sirgy & Lee, 2006). That is, senor tourists' overall quality of life is mostly influenced indirectly or indirectly by evaluations of specific life domains such as health life, emotional life, leisure life, and family life. Neal, Sirgy, and Uysal, (1999) applied the bottom-up spillover theory to examine the relationship between tourism experience and OoL, and the study revealed that overall life satisfaction was influenced by satisfaction with primary life domains. The effects within the leisure life domain spill over into the most superordinate domains, thus contributing to life satisfaction. Moreover, Kim, Uysal, and Sirgy's study (2013), bottom-up spillover theory was applied to examine the effects of tourism on residents' satisfaction with life domains and overall life satisfaction. The study found that residents who are satisfied with life domains such as emotional life, community life, and material life impacted by tourism are more likely to be satisfied with their life overall. Furthermore, a number of consumption-related studies have also applied bottom-up spillover theory to explain consumption-experiences in different fields (Sirgy et al., 2010). For instance, Kara, Uysal, Sirgy, and Lee (2013) revealed that employee's overall well-being or quality of life is influenced by their organizational commitment and quality of working life.

In this study, the measures for QoL of individuals are based on subjective and reflective indicators measured by life satisfaction based on spillover theory.

2.6.2 Life domains measurement of the seniors

It is significant to identify what are the main life domains of seniors. Farquhar (1995) attempted to find salient life domains for seniors. The study revealed that family, social contact, activities, health, and material circumstances as important domains affecting overall QoL. Brown, Blowling, and Flynn (2004) noted prominent life domains of seniors as relationships with others, autonomy, health, mobility, family relationships, emotional well-being, independence, and leisure. In addition, Ferrans and Powers (1992) measured seniors' QoL in terms of their satisfaction with life domains including their relationships with family members, friends, ability to meet nonfinancial family responsibilities, health, leisure time activities, and religious life. Based on a comprehensive review of the leisure and gerontology literature, this study found that the most commonly used life domains and indicators are 'family', 'social', 'emotional', 'leisure', and 'health' life domain.

In later life, physical health turns out to be more significant than they may be in earlier life. Smith, Avis, and Assmann (1999) conducted a meta-analysis of QoL instruments showing that 'health status' is the distinct construct of old age. In addition, a number of studies emphasized physical and mental health as predominant life domains for seniors (e.g., Janke, Nimrod, & Kleiber, 2008; Paillard-Borg et al., 2009; Werngren-Elgstrom, Brandt, & Iwarsson, 2006). Thus, this study measures the health life domain separately. Table 2 shows the list of life domains and indicators from previous studies.

Table 2 List of life domains

Author(s)	Salient life domains
Brown, Bowling, & Flynn (2004)	Health, family relationships, relationship with others, independence, mobility, and autonomy
Ferrans & Powers (1985)	Relationship with spouse, friends, and standard of living
Greenely, Greenberg, & Brown (1997)	Living situation, finances, leisure, family, social life, health, access to medical care
Ku, Fox, & McKenna (2008)	Physical well-being, emotional well-being, independence, learning and growth, material well-being, environmental well-being, and social well-being
Kelly-Gilllespie (2009)	Social well-being, physical well-being, cognitive well-being, spiritual well-being, environmental well-being
Everard et al. (2000)	Physical health, mental health
Janke, Nimrod, & Kleiber (2008)	Physical and subjective well-being
Paillard-Borg et al. (2009)	Physical and mental health
Werngre-Elgstrom, Brandt, & Iwarsson (2006)	Depressive and ill-health symptoms, perceived health, subjective well-being

This study investigates the seniors' QoL from the perspective of satisfaction with specific life domains including family, social, leisure, emotional, and health life domains as determinants of overall QoL.

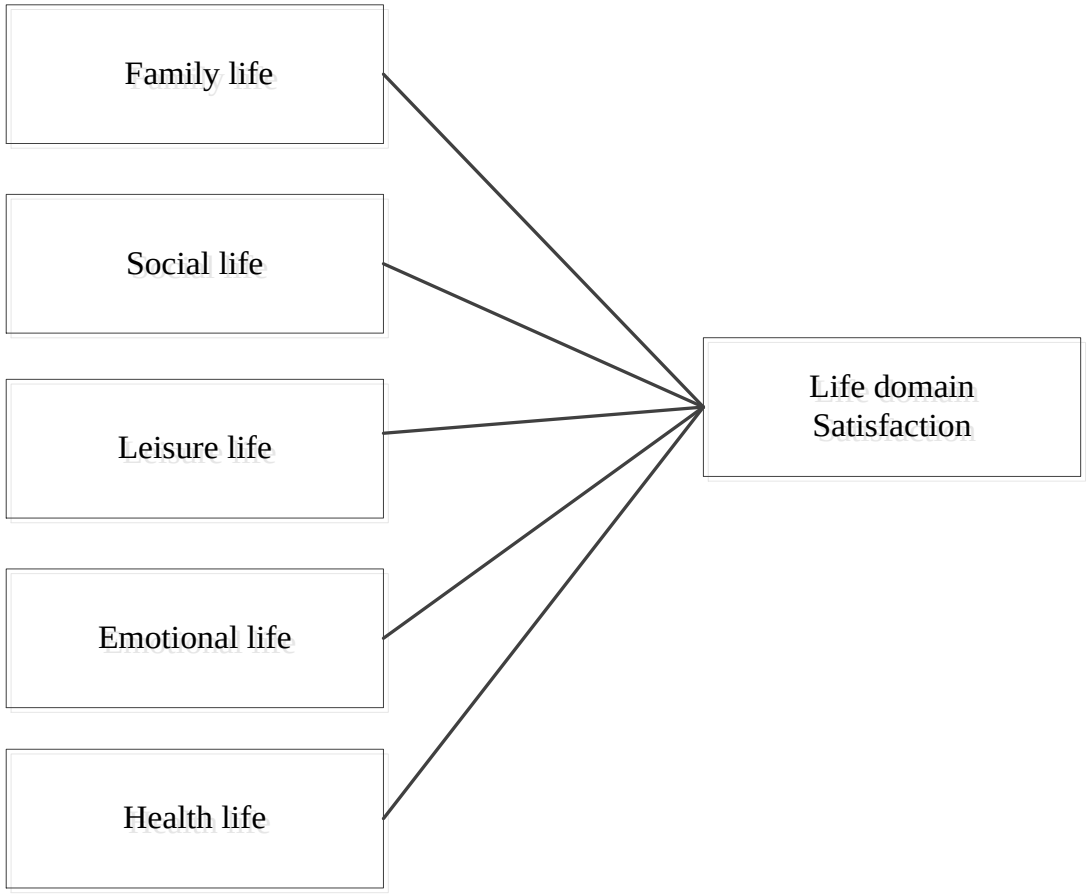


Figure 3. Five major QoL domains among seniors

Family life domain can be examined in terms of relationships between family members and relatives (Brown, Bowling, & Flynn, 2004). The seniors consider the relationship with spouse and family as important aspects of their life. Studies have found there is a significant association between marital status or family conflicts and QoL (e.g.,

Ejechi, 2012). For example, family conflict causes a lower quality of life level (Amato, 2005). Tourism can assist in strengthening familial and friend relationships by allowing the participants to go on holiday together or travel in order to visit each other (Smith & Puczkó, 2012). Andrew and Withey (1976) also showed that satisfaction with family life is a substantial factor of life satisfaction.

Social life domain can be evaluated using relationships with friends, interaction with others, and general satisfaction with one's friendships. In regards to tourism, people are more likely to form new friendships and meet new people if they go on, for instance, singles' holidays devoted to romance or companionship or if they take part in group tours or special interest holidays with similarly-minded people. For example, Dann (2001) found that senior individuals, while exploring opportunities for new experiences and reflection during tourism excursions, are likely to foster purpose through the discovery of new friendship or romance with those of a similar age.

Leisure life domain can be seen in terms satisfaction with seniors' leisure life, available leisure time, and free time management. Tourism and leisure has been one of the more important life domains used by seniors' to manage their additional free time through the participation in various types of travel and leisure activities (McGuire, Boyd, & Tedrick, 1996). Many studies show that leisure and tourism have been major components of post-retirement life and have a significant influence on one's life (e.g., Fernandez- Ballesteros, Zamarron and Ruiz 2001; Nimrod, 2007; Kim et al., 2015). For example, Kim et al. (2015) found that a senior's satisfaction with leisure life domain positively affects their overall life satisfaction. Mishra (1992) conducted a study on a sample of 150 seniors to examine the association between leisure-life experience and QoL. The results showed that leisure-life experience has a positive influence on QOL.

Emotional life domain can be seen in terms of spiritual well-being (Puczkó & Smith, 2011). Spiritual well-being is conceived of as devotion to a deity or particular life philosophy (Sirgy, 2002). It incorporates the fulfillment of spiritual needs as well as those activities related to their fulfillment. Teichmann, Murdvee, and Saks (2006) showed that positive and significant correlations between spiritual well-being and subjective well-being. Moreover, they also found the positive relationship between spiritual well-being and physical health and social relationships. A study by Cummins (2005) reviewed the 32 QoL studies and classified 173 different terms into seven life domains. One of the findings showed that leisure and tourism activities are the significant predictor of satisfaction of emotional well-being domain, and 85% of the studies included emotional well-being in some form of leisure, spiritual well-being, morale, etc. Lee and Ishii-Kuntz (1987) emphasized the importance of understanding of emotional well-being of seniors and tested the role of partners on emotional well-being of the seniors by using a sample 2,872 seniors. The study found that social interaction with friends has strong effects on emotional well-being.

Health life domain is one of the most important issues related to the QoL among seniors. Several studies have revealed that emotional states that have a bearing on health in turn affect life satisfaction, since personal health plays such a large role in one's evaluation of life (e.g., Andrews & Withey, 1976). Indeed, QoL studies have linked health-related factors with seniors' QoL. In recent years, health and wellness tourism—including spas, clinics for medical procedures, and hiking—has rapidly grown (Sheldon & Bushell, 2009; Smith & Puczkó, 2009). Several studies have indicated that physical health conditions lead seniors to experience stress, which adversely affects their subjective well-being (Berg, Hassing, McClearn, & Johansson, 2006; Lachman, Röcke, Rosnick, & Ryff, 2008; Pearlin & Skaff, 1996). Furthermore, a study conducted by Windle, Woods, and Markland (2010) has shown

that the negative effect of poor health on the life satisfaction of seniors is moderated by resilience. Hsu (2010) conducted a study using Taiwanese data, and the results showed that physical disability is not related to life satisfaction among the seniors.

2.6.3 Overall QoL measurement of the seniors

Overall QoL rests at the top of the hierarchy of life satisfaction and is influenced by lower life such as family, social, leisure, emotional welling, and health life domains.

Defining overall QoL among seniors has received its own due attention (e.g., Stanley & Cheek, 2003). The research on overall QoL or well-being has been emphasized happiness and satisfaction with current life (Diener et al., 1999). In tourism studies, overall life satisfaction was measured using prompts such as: "I felt good about my life shortly after the trip", "Overall, I felt happy upon my return from that trip", and "I felt that I lead a meaningful and fulfilling life" (Andrews & Withey, 1976; Campbell et al., 1976; Neal, Uysal, & Sirgy, 2007; Sirgy, Kruger, Lee, & Yu, 2011).

In gerontology, overall QoL has been said to be the subjective counterpart of a more public evaluation of 'successful ageing'. Overall QoL of the senior has been evaluated using different measures. Life Satisfaction Rating (LSR), developed by Neugarten, Havighurst, and Tobin (1961), was widely used to measure the seniors' overall life satisfaction (e.g., Meadow & Cooper, 1990; Hsu, 2010). For example, "Compared to other people, my life is better than most of them" and "I would say I am satisfied with my way of life" are included in these measures. Alternatively, the Reflective Life Satisfaction (RLS) measure also captures overall life satisfaction (Wood, Wylie, & Sheafer, 1969). The measure involves the following items: "As I look back on my life, I am fairly well satisfied", " I have gotten pretty much what I expected out of my life", "When I think back over my life, I did not get most of the important

things I wanted", "I have gotten more of the breaks in life than most of the people I know", "In spite of what people say, the lot of the average man is getting worse, not better", "Most of the things I do are boring or monotonous", "These are the better years of my life", "The things I do are as interesting to me as they ever were" and "I am just as happy as when I was younger". In addition, CASP-15 scale is designed to measure the quality of life and fulfillment of human needs in early old age and particularly measures four domains: control (C), autonomy (A), self-realization (S), and pleasure (P) (Jivraj, Nazroo, Vanhoutte, & Chandola, 2014). Another popular measure of overall life satisfaction of seniors is called the Satisfaction with Life Scale (SWLS). SWLS includes items such as the following: "In most ways my life is close to my ideal", "The conditions of my life are excellent and I am satisfied with my life", "So far I have gotten the important things I want in life", and "If I could live my life over, I would change almost nothing". The volume of previous literature employing SWLS has proven its reliability and validity of the scale. In order to measure overall QoL of the seniors, the indicators were adopted from the SWLS and tourism literature.

Based on the literature review as reflected in the bottom-up spillover theory, the following hypotheses were put forth:

Hypothesis 5: Satisfaction with life domains has a positive influence on overall QoL of senior.

Hypothesis 6: Satisfaction with the health life domain has a positive influence on overall QoL of senior.

2.6.4 Relationship between travel motivation and QoL

Ross and Iso-Ahola (1999) argued that motives are inseparably tied to the anticipated behavioral outcomes. Motivation for participating in a particular behavior is related to psychological consequences such as one's feeling about an activity, goal progress, and psychological well-being (Burton, Lydon, D'Alessandro, & Koestner, 2006). Self-determination theory supports that the autonomous end of the continuum is associated with positive outcomes such as psychological well-being (Reis et al., 2000). It has been found that those who have authentic motivation experiences are more interested and excited as opposed to those who are externally controlled for an action, which in turn is manifested as greater outcomes (e.g., Sheldon, Ryan, Rawsthorne, & Ilardi, 1997), heightened vitality (e.g., Nix, Ryan, Manly, & Deci, 1999), self-esteem (e.g., Ryan & Deci, 2000), and well-being (Ryan, Deci, & Grolnick, 1995)

In tourism studies, travel motivation has been studied along with stress reduction (e.g., Iwasaki & Schneider, 2003; Iso-Ahola & Park, 1996), satisfaction (e.g, Devesa, Laguna, & Palacios, 2010), and behavioral intention (e.g., Huang & Hsu, 2009; Li & Cai, 2012; Yoon & Uysal, 2005). These studies suggest that individuals' differences in intrinsic motivations influence tourist outcome behavior. For example, Huang and Hsu (2009) found that travel motivation's underlying dimensions positively affected Beijing tourists' revisit intention for Hong Kong. Devesa et al. (2010) revealed that travel motivation has a positive influence on the level of satisfaction. However, the issue regarding the relationship between tourist motivation and QoL has not been thoroughly focused on in the literature before. Based on self-determination theory, human motivation is essential for facilitating the function of social development and subjective well-being (Ryan & Deci, 2000). Moreover, previous literature shows that common senior tourist motivations are 'knowledge seeking', 'rest and

relaxation', 'social interaction', and 'self-fulfillment', which are more associated with growth needs than basic needs. Based on 'growth needs principle of goal selection' in leisure (Sirgy, 2010), life satisfaction can be high if one selects leisure travel goals related to growth needs, such as self-achievement needs and novelty needs, over basic needs. From these perspectives, the study assumes that seniors' travel motivation has a positive association with life satisfaction. Therefore, the study states the following hypotheses:

Hypothesis 3: Travel motivation has an influence on satisfaction with life domain of senior.

Hypothesis4: Travel motivation has an influence on satisfaction with health life domain of senior.

2.7 LEISURE ACTIVITY PATTERN

Successfully managing life after retirement is a significant challenge for seniors. Leisure and tourism activity pattern continuities and changes serve a significant role in the retirement adjustment process (Nimrod, 2007). With this in mind, tourism has been essential life domains used by seniors to manage additional free time by participating in various types of travel and leisure activities (McGuire, Boyd, & Tedrick, 2004). However, not every senior is likely to participate in new or additional travel after his or her retirement (Iso-Ahola et al., 1994). Some may continue to participate in previous tourism activities or in reduced activities while others may start new types of travel depending on their level of constraints, such as reduced income, declining health capacity, and loss of significant partners (Nimrod, 2007; McGuire 1984). In leisure and tourism studies, researchers paid attention to changes in older adults' leisure and leisure activity patterns by applying the theory of activity, disengagement

theory, and continuity theory. Cumming and Henry (1961) stated that the seniors tend to reduce their time with society and focus more on personal growth. They also argued that social detachment led to a person's personal growth and well-being. On the other hand, the engagement argument evolved into activity theory (Havighurst, 1963), which argued that participating in and maintaining activities contribute to participants' well-being. Active engagement in meaningful activities is an essential part of life satisfaction. For example, Blazey (1992), focusing on individuals over the age of 50, examined the association between retirement status and travel activities. The study showed that retirees were more likely to travel for longer durations with a larger number of persons in the travel party than non-retirees. Nimrod (2007) showed that the highly involved individuals engaged in a higher frequency of activities enjoyed a significantly higher life satisfaction. There are mixed findings of seniors' leisure activity patterns and their contribution to life satisfaction.

This study will regard retirement as a transition in seniors' lives and examine retirees' leisure activity patterns by investigating the frequency of travel participation in comparison to the pre-retirement period. Frequency implies the level of involvement. Considering changes in frequency of tourism activity participation, types of perceived post-retirement behavior that examine these types of senior leisure activity patterns following retirement will amplify the effect of satisfaction with life domains on overall QoL. Hence, the following hypothesis is stated:

Hypothesis 7: The seniors' leisure activity patterns will have a moderating effect on the relationship between satisfactions with life domains and overall QoL of senior.

2.8 CHAPTER SUMMARY

The second chapter of this study defines the main constructs based on conceptualization and previous empirical and theoretical research. Specifically, this chapter reviews senior tourist behavior and QoL. Firstly, a comprehensive review of seniors' general travel behavior was conducted. Next, the main concepts of personal values, travel constraints, and travel motivations among the senior tourists were examined, and the relationships between personal values, travel constraints and travel motivations were reviewed. In the following section, the main concept of QoL, measurement of QoL, salient life domains of senior tourists, and the relationship between travel motivation and QoL were examined. Finally, the investigations of the seniors' leisure activity patterns were reviewed. The next chapter discusses this study's research design and methodology in more detail.

CHAPTER THREE: METHODOLOGY

3.1 INTRODUCTION

This chapter explains the methodology and research design used to examine the theoretical model of seniors' QoL and the relationships among constructs (Figure 4). The research framework and specific hypotheses are proposed, followed by a discussion of the research design (the study population and data collection) and development of the measurement scales (scale development, pre-test, and measurement variables). The final section provides a discussion of statistical methods employed in this study (Structural Equation Modeling and Multi-group analysis).

3.2 RESEARCH FRAMEWORK

The primary purpose of this study is to investigate the interrelationship between following main constructs: personal values, travel constraints, travel motivation, satisfaction with life domains, and overall QoL. Specifically, the first goal is to assess the direct effects of the perception of personal values and travel constraints on travel motivation. The second is to examine the direct effects of travel motivation on satisfaction with particular life domains. The particular life domains are separated and tested using two domain classes: life domains (family, social, leisure, and emotional life) and health life domain. The third purpose is to investigate the relationship between satisfaction with life domains and overall QoL. Next, the study examines the moderating effects of the seniors' leisure activity patterns between the perception of satisfaction with life domains and QoL. The respondents are divided based on frequency of the travel participation in comparison to their pre-retirement period: expanders

and reducers. Figure 4 presents the framework of the research and hypotheses. The next section of this chapter presents the specific hypotheses for the study.

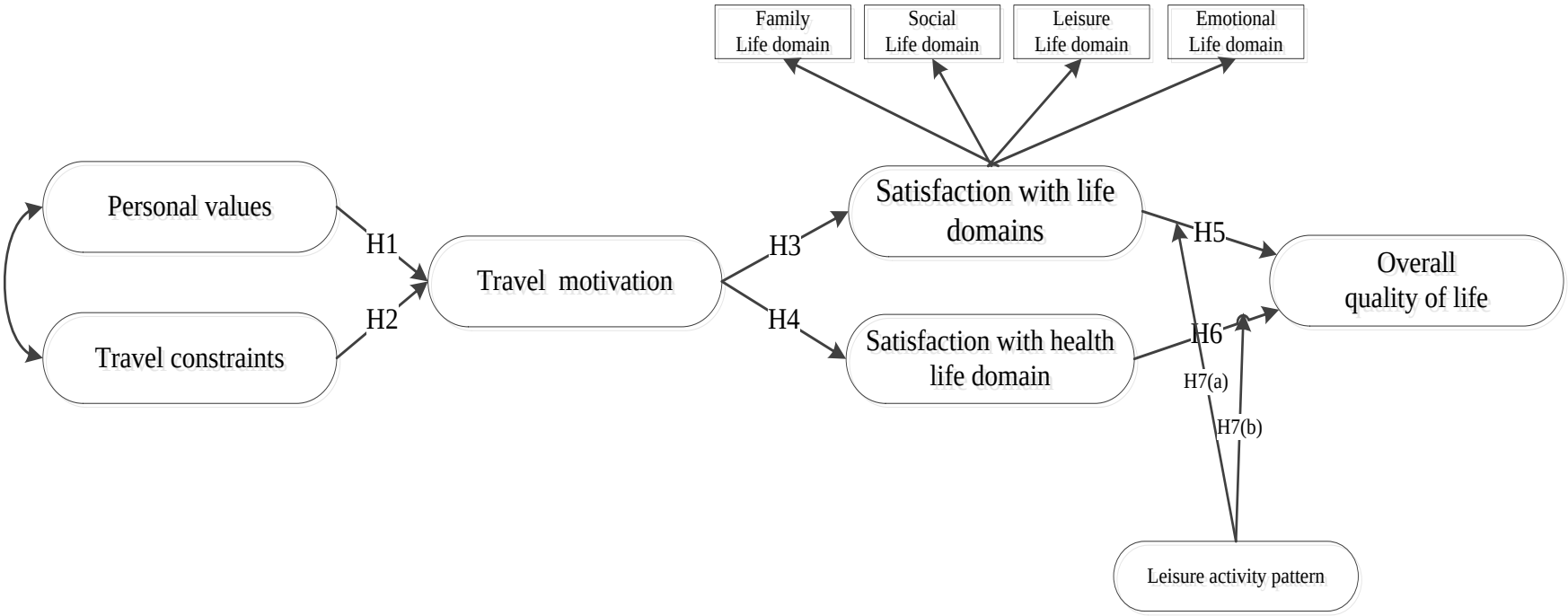


Figure 4. Theoretical model and the hypotheses

3.3 RESEARCH HYPOTHESES

In this study, the eight research hypotheses are presented in the theoretical model, and the list of hypotheses are expressed below:

Hypothesis 1: Personal values have a positive influence on the travel motivation of senior

Hypothesis 2: Travel constraints have a negative influence on the travel motivation of senior.

Hypothesis 3: Travel motivation has a positive influence on satisfaction with life domain (family, social, leisure, and emotional) of senior.

Hypothesis 4: Travel motivation has a positive influence on satisfaction with health life domain of senior.

Hypothesis 5: Satisfaction with life domains has a positive influence on overall QoL of senior.

Hypothesis 6: Satisfaction with the health life domain has a positive influence on overall QoL of seniors.

Hypothesis 7(a): The relationship between satisfaction with life domains (family, social, leisure, and emotional) and overall QoL is moderated by leisure activity patterns of senior.

Hypothesis 7(b): The relationship between satisfaction with health life domain and overall QoL is moderated by leisure activity patterns of senior.

3.4 RESEARCH DESIGN

3.4.1 Study Population

In research methodology, population can be thought of as a group of things—i.e., people, organizations, or institutions—that share common traits or themes that fall within the purpose of the study and can be employed by researchers to make conclusions and generalizations (Zikmund, 2002). This research aims to investigate the relationships between senior tourist behaviors, leisure activity patterns, and QoL. Therefore, the population of the study is comprised of retired senior citizens over the age of 65.

3.4.2 Sample

Sampling is the procedure of selecting a small number of units from a population to generate conclusions about the population from which they were chosen. A sampling frame (working population) is the actual list of sampling units from which a sample may be drawn (Zikmund, 2002).

An individual who is over 65 and retired is the unit of analysis in this study. The data collection site for this study is Jeju Island, South Korea. This destination was selected because people over 65 consisted of 14% of the population in 2012, and the destination has been designated as the “longevity island” (Ko & Kim, 2014). By comparing distributions of some variables in the sample pool (e.g. gender, income source, and education level) with distributions of those variables in the broader Jeju Island census data, the study ensure that the sample is representative. Because the study is interested in evaluating hypotheses, it is inclined towards internal validity, making Jeju Island an appropriate sample location.

The questionnaire was originally developed in English and then translated into Korean. A back-translation was done to ensure that both English and Korean versions were comparable. Korean professors who are fluent in both English and Korean checked the

correspondence of meaning between the two versions. The equivalence of the translation was verified.

3.4.3 Sample Size

This study employs Structural Equation Modeling (SEM) to test the proposed structural model and hypotheses. One major assumption of SEM analysis is to ensure a large number of observations. Then, how large the sample sizes should be becomes an important issue. The sample sizes in particular play an important role in the estimation and interpretation of SEM results (Hair, Tatham, Anderson, & Black, 2006). It is recommended that a sample size of 150 is acceptable to ensure an appropriate use of maximum likelihood estimation (MLE). Also, the minimum sample size must be obtained to reduce the chance of having an exaggerated goodness-of-fit indices (Anderson & Gerbing, 1988). Based on the overall results derived from previous research, the model and number of fit indices such as GFI, AGFI, NNFI, and CFI are relatively and consistently stable across the MLE method at a sample size of 250 or greater (Hair et al, 2006). Therefore, this study intends to achieve the targeted usable sample size of 300 or greater to ensure the solution for the final structural model. To compare perspectives of the two different leisure activity patterns, the study tried to get similar sample sizes for each group in order to populate the sample.

3.4.4 Data Collection

A self-administered survey was utilized to collect the data. Jeju, South Korea has two main administrative district cities; Jeju City and Seogwipo. First, senior welfare centers, education centers, gathering and social clubs, and personal contacts in each city were personally contacted to ask to distribute the questionnaire to residents who satisfied the age requirements and had retired. In the end, two senior education center, one senior welfare

center, and gathering and social clubs in each city agreed to distribute the questionnaire to residents. In order to reduce errors or misunderstandings in reading questions, several well-trained assistants were employed and distributed the survey questionnaire in each place in order to help the seniors completely fill it out.

3.5 MEASUREMENT SCALES AND INSTRUMENTS

3.5.1 Survey Development and Pretest

The measurement scales of the study were developed based on approaches recommended by Churchill (1979) and DeVellis (2011). First, related literature on personal values, travel constraints, travel motivation, QoL, and leisure activity patterns was reviewed to generate a list of indicators. Then, the professors and graduate students in the department of hospitality and tourism management at Virginia Tech reviewed the content reliability and validity of the indicators and were asked to evaluate indicators of each construct. Furthermore, they were asked to provide comments regarding the layout, wording, and comprehensibility of the work in order to enhance the clarity of the questionnaire. Based on their suggestions, the indicators of the measurement scale were revised and reorganized.

After the items of the measurement scales were developed, the pretest of the scales were carried out prior to the creation of the final questionnaire in order to ensure the reliability and validity of the construct (Hinkin, Tracey, & Enz, 1997). The questionnaire was then distributed to retired residents of Jeju, South Korea over the age of 65. One hundred fifty responses were included in the analysis. The results of the pretest were used to refine the initial instrument scales and incorporated into the final version of the survey instrument.

3.5.2 Survey Instruments

The first part of the survey instrument measures demographic information and general travel behavior. The second part examines senior tourists' perceived personal values, travel constraints, and travel motivations. The third part investigates satisfaction with life domains and measures overall QoL. The last section covers questions related to leisure activity patterns. All of the sections consist of items that utilize a 5-point Likert type scale whose anchors include (a) very unsatisfied to very satisfied, or (b) strongly disagree to strongly agree, or (c) not important at all to very important.

3.5.3 Measurement Scales

As shown in the theoretical model (Figure 4), six major constructs—perception of personal values, perception of travel constraints, perception of travel motivation, satisfaction with life domains, satisfaction with health life domain, and overall QoL—were included in the proposed model. The life domains consist of four different sub-dimensions: social life, family life, emotional life, and leisure life. Each sub-dimension includes several measurement indicators.

3.5.3.1 Personal values

Numerous studies have been conducted to examine the perceived values of customers. For this study, Kahle's LOV scale is used because it has been widely used and replicated in many tourism studies. The items of the scale are measured using a five-point rating scale ranging from "not important at all" (1) to "very important" (5) (e.g., Madrigal & Kahle, 1994; Mehmetoglu, 2004); hence, they were appropriate for the purpose of the present study. The nine values are as followed:

- Self-respect
- Being well-respected
- Warm relationships with others
- Sense of belonging
- Fun and enjoyment in life
- Excitement
- Self-fulfillment
- Sense of accomplishment
- Security

3.5.3.2 Travel constraints

Based on the work of Crawford et al. (1991), Chen and Wu (2008), and McGuire (1984) work, a total of 20 travel constraints for seniors were measured. The items of the scale are measured using a five-point rating scale ranging from “strongly disagree” (1) to “strongly agree” (5), hence, they were appropriate for the purpose of the present study. The twenty items are as followed:

- I have had difficulty getting information
- I have no information about the place to visit
- The trip requires me to do too much planning
- I cannot afford to spend money on travel
- I have more important thing to do than travel
- I have no time to take a trip
- Travelling would interrupt my normal life
- I don’t have either the clothing or luggage for travel

- My spouse dislike travel
- Concern for family doesn't allow me travel
- I would feel guilty about travelling
- I fear of leaving home unattended
- I don't' have companion to travel with
- My family and friends are not interested in travelling
- I don't have the energy to travel
- My health prevent me from travelling
- I have dietary consideration that limits my travel
- I fear of travel on certain forms of transportation
- I am too old to travel
- I have a disability which makes travel difficult

3.5.3.3 Travel motivation

To measure senior tourists' push motivations, 20 push motivation items were developed based on previous literature reviews (e.g., Chen & Wu, 2008; Huang & Tsai, 2003; Jang & Wu, 2006; Sangpikul, 2008). The respondents are asked to indicate their perceptions of items related to travel motivation using a scale ranging from "strongly disagree" (1) to "strongly agree".

- Seeking intellectual enrichment
- Seeking spiritual enrichment
- Visiting new places and seeing new things
- Experiencing different cultures and ways of life
- Seeing how other people live

- Seeing the things that I don't normally see
- Engaging in physical activities
- Having opportunities for doing sports
- Improving health/physical fitness
- Doing nothing at all
- Resting and relaxing
- Escaping from everyday routine
- Enjoying life
- Spending time with immediate family and relatives
- Meeting new people and socializing while travelling
- Visiting friends and relatives who live in other cities
- Spending time with a group of good friends
- Visiting places I have always wanted to go
- Feeling a sense of self-fulfillment
- Nostalgic reminiscence

In addition, 11 pull motivation items were developed based on previous literature reviews (e.g., Uysal, Li, and Sirakaya-Turk, 2008; Sanpikul, 2008; Jang & Wu, 2006). The respondents are asked to indicate their perceptions of items related to travel motivation using a scale ranging from "strongly disagree" (1) to "strongly agree" (5).

- Outstanding scenery
- Historical cities
- Facilities for physical activities
- Walking paths or other places to walk for exercise

- Shopping facilities
- Special events and attractions
- Natural scenery and landscapes
- Reliable weather
- Safety and security
- A variety of things to do and places to go
- Suitable accommodations

3.5.3.4 Life Domains

The life domain consists of four sub-dimensions that are specific indicators that measure family life, social life, emotional life, and leisure life domains and each sub-dimension. Therefore, specific measurement indicators of the sub-dimensions of satisfaction with life domains are explained in the following subsections. In addition, specific measurement indicators separately measure the health life domain. The respondents are asked to indicate their perceptions of items related to travel motivation using a scale ranging from "strongly dissatisfied" (1) to "strongly satisfied" (5).

Family life domain indicators

Family life domain can be measured in terms of relationships between family members and relatives. Seniors think that their relationships with their spouse and their family's happiness are important aspects of their life (e.g., Greenly, Greenburg, & Brown, 2007; Ferrans & Powers, 1985). Thus, in order to measure satisfaction with family life domain, four indicators are used:

- I am satisfied with my family relationships in general
- I am satisfied with my family's happiness

- I am satisfied with my relationship with relatives
- I am satisfied with my relationship with my spouse (or family member)

Social life domain indicators

Social life domain can be seen in terms of friendships, interaction with others, and satisfaction with friendship in general (e.g., Dann, 2001; Sirgy et al., 2010).

- I am satisfied with my friendships in general
- I am satisfied with the things I do with other people
- I am satisfied with my interaction with others

Emotional life domain indicators

The emotional life domain is one of the most important of the sub-dimensions of the non-material life domain (Kelley-Gillespie, 2009). Psychological well-being and spiritual well-being are parts of a person's their emotional well-being. Indicators such as self-achievement and spiritual well-being can explain the emotional life domain. Thus, the emotional life domain can be measured by three items adopted from Andrews and Withey (1976), Sirgy (2001), and Kelley-Gillespie (2009).

- I am satisfied with achieving self-fulfillment
- I am satisfied with achieving emotional health
- I am satisfied with achieving personal goals and hopes

Leisure life domain indicators

Leisure life domain can be seen in terms satisfaction with subjects' leisure life, leisure time, and free time management. Retirees consider tourism and leisure as an important life domain for managing their additional free time through participation in various types of

travel and leisure activities (e.g., Sirgy et al., 2010; Neal, Sirgy, Uysal, 1999). In order to measure satisfaction with leisure life domain, three indicators are used:

- I am satisfied with my leisure life
- I am satisfied with my leisure time
- I am satisfied with my spare time activities

Health life domain indicators

Health life domain is the most important issue related to QoL among the seniors. A number of studies have shown that the emotional states regarding one's health condition spill over into overall life satisfaction because of the importance of personal health in one's evaluation of life (e.g., Bushell & Sheldon, 2009 ; Greenly et al., 2007; Smith & Puczkó 2009). Therefore, in order to measure satisfaction within health life domain, three indicators are used:

- I am satisfied with my health in general
- I am satisfied with my physical well-being
- I am satisfied with my physical fitness

3.5.3.5 Overall QoL

Overall QoL of the senior has been evaluated using different measures. The Satisfaction with Life Scale (SWLS) has been widely used in gerontology and leisure studies to measure particularly senior's overall life satisfaction and quality of life. For this study, the Satisfaction with Life Scale (SWLS) and previous additional items from previous tourism research are adopted (Diener, Horwitz, & Emmons, 1985; Sirgy, 2002; Sirgy et al.,2011). The responses to life domain satisfaction and overall life satisfaction are measured on a five-point Likert scale, ranging from "very unsatisfied" to "very satisfied".

- The conditions of my life are excellent and I am satisfied with my life.
- My satisfaction with life in general was increase shortly after trip
- Overall, I felt happy upon my return from trip
- Although I have my ups and downs, in general, I feel good about my life
- Overall, my experience with my life are memorable and have enriched my quality of life
- After the trip I felt that I lead a meaningful and fulfilling life

3.5.4 Reliability and Validity

Reliability and validity of the measurement of scale are the essential issues to get reliable results. Reliability is a measurement of consistency between multiple measurements of a variable. The most common way to assess a scale's internal reliability is Cronbach's alpha. Therefore, for study used Cronbach's alpha to ensure how well items measured the same construct or dimensions of life domains. The generally agreed upon limit for Cronbach's alpha is .70 (Hair et al., 2006). Furthermore, the Construct Reliability (CR) was tested in measurement model by using CFA (Confirmatory Factor Analysis). CR was used because it incorporates measurement error into the calculation. Therefore, Cronbach's alpha and CR values higher than .7 were considered as internal consistency. A large coefficient alpha suggests a strong item covariance of homogeneity; the sampling domain has likely been adequately captured (Churchill, 1979). Validity is a gauge of whether the measurement and indicator(s) function. Construct validity consists of four components—convergent validity, discriminant validity, nomological validity, and face validity—all of which were examined. Convergent validity refers to the degree to which indicators of specific construct overage share a high proportion of variance. In order to check the convergent validity, factor loading

of an individual item on a latent construct, the reliability of the construct, and the average variance extracted (AVE) were checked. Hair, Black, Babin, Anderson, & Tatham (2010) suggest that standardized loading estimated should be statistically significant with factor loadings of 0.5 or higher.

3.6 STATISTICAL METHODS

The nature of the conceptualized model leads to the employment of Structural Equation Modeling (SEM) and multi-group analysis as an appropriate multivariate technique to simultaneously test the hypotheses. As an estimation method for model evaluation and procedures, the maximum likelihood (ML) method is utilized (Byrne, 2013; Gerbing & Anderson, 1988; Mueller, 1996). The analysis of the study mainly consists of two parts. In the first part, the hypotheses in the proposed model are tested. The second section focuses on examining the moderating effects of leisure activity patterns on satisfaction with life domains and overall QoL.

3.6.1 Structural Equation Modeling (SEM)

Structural Equation Modeling (SEM) is family of statistical models designed to examine the relationships among the latent constructs to evaluate how well a proposed model fits the collected data (Hair et al, 2010). According to Byrne (1998), SEM is "a statistical methodology that takes a confirmatory approach to the multivariate analysis of a structural theory bearing on some phenomenon" (p. 3). Through a series of equations, it explains the structure of interrelationships and is thus useful in simultaneously examining the different relationships among constructs (Hair et al., 2010).

In order to test the conceptual model and a series of hypotheses in this study, SEM was conducted using AMOS 20.0, a structural equation analysis program, with the maximum likelihood (ML) method of estimation. Because SEM procedures consist of two main phases (the measurement model and the structural equation model) these two different components of SEM were investigated in this study.

3.6.1.1 Measurement Model

The measurement model is the component of the general model where latent constructs are allowed to inter-correlate freely. The purpose of Confirmatory Factor Analysis (CFA) is to test measurement models that specify the relationships of the observed indicators to the underlying constructs (Bollen, 1998; Gerbing & Anderson, 1988).

According to Gerbing & Anderson (1988), confirmatory measurement models need to be tested before examining the measurement and structural equation models. Therefore, testing a separate measurement of the each construct is recommended to ensure the uni-dimensionality of the scales before testing the overall measurement model. In this study, personal values, travel constraints, travel motivation, satisfaction with life domain, health life domain, and overall QoL are considered individual constructs. Factor loading (higher than 0.6) is only induced in the model for ensuing a uni-dimensional measurement (Gerbing & Anderson, 1988). After making sure that the fit of each construct was acceptable, the overall measurement model fit was tested (Jöreskog & Sörbom, 1993; Sethi & King, 1994).

Employing CFA can confirm the validity and reliability of the measurement model. Therefore, in this study CFA was employed with the maximum likelihood estimator to test the overall fit of the measurement model and the construct validity of the scales. Different goodness-of-fit indices including the Comparative Fit Index (CFI) and the root mean square error of approximation (RMSEA) (Hair et al., 2010) were used to check overall fit for the

measurement. Moreover, the study examined incremental fit indices such as the comparative fit index (CFI), the normative fit index (NFI), and parsimony fit indices such as adjusted the goodness-of-fit index (AGFI) and the parsimony normed fit index (PNFI). Table 3 illustrates types of indices used in SEM.

Table 3. Fit Indices of the Measurement Model

Fit Index	Cutoff Value
Goodness-of-fit Index (GFI)	> .90
Adjusted Goodness-of-fit Index (AGFI)	> .90
Parsimony Goodness-of-fit Index (PGFI)	> .50
Normed Fit Index (NFI)	> .90
Non-Normed Fit Index (NNFI)	> .90
Parsimony Normed Fit Index (PNFI)	> .50
Comparative Fit Index (CFI)	> .90
Increment Fit Index (IFI)	> .90
Relative Fit Index (RFI)	> .90
Root Mean Square Residual (RMR)	< .05
Root Mean Square Error of Approximation (RMSEA)	< .08 or .10

3.6.1.2 Structural equation model

The structural equation model examines the proposed model with multiple dependent variables. Generally, the model is allowed to relate the constructs to other constructs by estimating path coefficients for each of the research hypotheses. Specifically, one can test each estimated path coefficient for its respective statistical significance in regards to the hypotheses' relationships all while including standard errors and calculated t-

values (Bollen, 1989; Byrne, 1998). Therefore, a structural model was used to test the path coefficient of each hypothesized relationship among the personal values, travel constraints, travel motivations, satisfaction with life domains, satisfaction with health life domain, and overall QoL.

3.6.2 Multiple-group analysis

Multiple-group analysis in covariance-based structural equation modeling (SEM) is an important technique to ensure the invariance of latent construct measurements and the validity of theoretical models across different subpopulations (Evermann, 2010; Jones-Farmer, Pitts, & Rainer, 2008). Thus, multi-group analysis in structural equation modeling (SEM) allows researchers to identify whether data from multiple subsamples fit the same or similar models. As a result, it has been widely applied to compare groups. This study used multi-group analysis to compare two different types of leisure activity patterns (expanders and reducers) in relationship to satisfaction with life domain, satisfaction with health life domain, and overall QoL.

3.7 CHAPTER SUMMARY

This chapter explained the plan for conducting the research described in Chapters 1 and 2. This plan included the conceptual model, research design, and statistical models. A series of hypotheses were also introduced based on the conceptual model. The research design involves testing the conceptual model and the study hypotheses. Considerations regarding sampling, instrument design, data collection, and statistical methods are also discussed. Lastly, statistical methods were examined. The results of the data gathering process and data analysis are presented in the next section.

CHAPTER FOUR: ANALYSIS AND RESULTS

4.1 INTRODUCTION

This chapter discusses the results of the data analysis and hypothesis testing. The first section presents the results of pretesting the measurement scale that is developed and used in this study. The second section describes the survey methods used in this study, as well as the demographic and travel behavior profiles of the respondents. The third section of this chapter includes the results of the Confirmatory Factor Analysis (CFA) used to examine the factor structure of the constructs in the model and check the reliability and validity of the measurement of the constructs. The fourth section presents the results of the hypothesis tests applied in Structure Equation Modeling (SEM). The last part of this section presents multi-group analysis used to test the moderating effect of leisure activity patterns.

4.2 PRE-TEST

The pretest aims to validate the measurement scale employed in the study. The measurement items were developed by the procedures suggested by Churchill (1979) and DeVellis (1991). Firstly, initial items were adopted from the relevant literature, and then were further reviewed by Virginia Tech professors and graduate students to check content validity of the measurement scale. They provided comments and feedbacks on the understandability and content of the measurement items, as well as improved them for clarity and readability. Moreover, the measurement items that were redundant with other scale items were identified and valuable suggestions for improving the proposed scale were made. Based on their feedback and comments, the measurement scale was revised.

Lastly, content adequacy was further validated through a survey with 150 senior residents in samples in Jeju. It is important to conduct a pre-test of a measurement scale before the final survey questionnaire is finalized (Zikmund, 2000). The main purpose of the pre-test is to examine the validity and reliability of scale items that were adopted and modified from previous studies. Based on the scale development procedure described in the previous chapter, nine scale items for personal values, twenty scale items for travel constraints, and twenty scale items for travel motivations were developed. Furthermore, sixteen scale items were developed for family, social, emotional, leisure life, and health domains. Lastly, six items were developed in order to measure overall quality of life.

4.2.1 Pre-test survey method

The survey questionnaire was initially established by English and then translated into Korean. Two Korean professors who have language fluency in both English and Korean checked the correlation of meaning between the two versions. Since the main data is collected from seniors residing in Jeju, South Korea, a pre-test of the survey was also randomly distributed to residents aged over 65 and retired during December of 2014. A total of 150 completed questionnaires were analyzed to test the reliability of the measurement items. The results and feedback from the pre-test analysis were used to refine the initial instrument scales and develop the final survey questionnaire.

4.2.2 Pre-test sample

For the pre-test, data was collected from residents who live in Jeju, South Korea. The questionnaire was distributed to the target population through two well-trained research assistants. Two well-trained research assistants distributed to one welfare center and also randomly distributed using personal contacts. In order to collect data from the population

targeted, the survey included a screening question at the beginning of the survey. Only people who are aged over 65 and retired could participate in the survey.

A total of 150 completed questionnaires were generated. 56% of the sampled respondents indicated that they were female and 44% were male. In terms of income sources, 42% of respondents live with pension followed by their own savings (24.7%), and social benefits (14%). Also, 46 % of the respondents have been retired for 3 years, while 32 % of the respondents had been over than 5 years. The range of ages was between 65 and 74. In terms of educational level, 30.7% of the respondents had bachelor degree and 25.3% have some college completed. Moreover, 58.6% of the respondents live with a spouse while 23.3% live alone. Table 4 summarized the results of demographic information of the pre-test.

Table 4. Demographic profile of the pre-test sample (N=150)

Category	Frequencies (%)
Gender	84 (56%)
Female	66 (44%)
Male	
Age	
65-69	65 (43.3%)
70-74	85 (56.7%)
Education Level	
High school or less	28 (18.7%)
Some college/ Associate degree	38 (25.3%)
College degree (bachelor)	46 (30.7%)
Post-graduate degree (master)	22 (14.7%)
Post-graduate degree (doctoral)	16 (10.7%)
Who do you live with	
Alone	35 (23.3%)
With Spouse	88 (58.6%)
With Family members	25 (16.6%)
Other	2 (1.3%)
Primary income source	
Pension	63 (42.0%)
Own saving	37 (24.7%)
Children' donation	18 (12.0%)
Relative's or friend's donation	1 (7.0%)
Social benefit	21 (14.0%)
Others	10 (6.6%)
How long have you been retired	
1 year	15 (10.0%)
2 years	10 (6.7%)
3 years	69 (46.0%)
4 years	8 (5.3%)
More than 5 years	48 (32.0%)

4.2.3 Results of the pre-test

Reliability of each construct's measurement items was analyzed. Also, comments from experts were also employed to refine and adjust the initial scale to generate the final version of the survey instrument. The main purpose of a pre-test is to ensure reliability and a uni-dimensionality of measurement scale of a construct.

An Exploratory Factor Analysis (EFA) with a principle component method of each construct in hypothetical model was performed to assess reliability and identify scale dimensionality of the measurement scale. Firstly, the Kaise-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to examine the appropriateness of factor analysis. The KMO index ranges from 0 to 1 and the minimum value of 0.6 is recommended for a good factor analysis. Bartlett's test of sphericity should be significant ($p < 0.05$) for appropriate factor analysis (Tabachnick & Fidell, 1989). Moreover, each factor identified by EFA needs to be one dimension and each attribute loads only on one factor. The attributes that had factor loadings of lower than 0.40 were deleted from the analysis (Hair et al, 2010).

An exploratory factor analysis of constructs used in this study (personal values, travel constraints, travel motivation, satisfaction with health life domains, and overall quality of life) and four sub-dimensions of satisfaction with life domains (satisfaction with family life, social life, leisure life, and emotional life) were conducted.

4.2.3.1 Personal values

Nine items were proposed to measure senior tourists' perception of personal values using the LOV (List of Value) scale. The results of a principle component factor analysis firstly showed that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test is

0.82 and the Bartlett's test of sphericity is p< 0.0001, which implies that that data were acceptable for factor analysis.

Moreover, the main analysis of EFA resulted in two groupings of personal values; internal values and external values, which explains 62.8% of the total variance of the scale (Table 5). The reliability for two factors was 0.82 and 0.79 respectively.

Table 5. Exploratory factor analysis of personal values

	Factor loading	Value explained	Cronbach alpha
Internal values		*50.3*	*.82*
Fun and enjoyment in life	.74		
Sense of accomplishment	.88		
Excitement	.78		
Self-respect	.63		
Being well respected	.74		
Sense of self-fulfillment	*.72*		
External values		12.5	.79
Sense of security	*.74*		
Warm relationships with others	.65		
Sense of belonging	.68		
Total variance		62.8%	

4.2.3.2 Travel constraints

Twenty items were used to measure the senior tourists' travel constraints. The results of the KMO measure of sampling adequacy test (0.77) and the Bartlett's test of sphericity (p< 0.0001) showed that data were acceptable for factor analysis. Using Varimax rotation, the latent root criterion of 1.0 was used for factor inclusion and a factor loading of 0.40 was used as the benchmark to include items in a factor. Five indicators were deleted.

The analysis of EFA resulted in three groupings of travel constraints; external sources, approval and social condition, and physical condition, which explains 57.08% of the total variance of the scale (Table 6).

Table 6. Exploratory factor analysis of travel constraints

	Factor loading	Value explained	Cronbach alpha
External sources		*30.32*	*.79*
I have no information about the place to visit	.82		
I have had difficulty getting information	.81		
The trip requires me to do too much planning	.76		
I cannot afford to spend money on travel	.72		
I have no time to take a trip	.58		
I have more important thing to do than travel	*.54*		
Approval and social condition		17.12	.77
My spouse dislike travel	.78		
I would feel guilty about travelling	.77		
Concern for family doesn't allow me travel	.62		
I fear of leaving home unattended	.72		
I don't' have companion to travel with	.56		
My family and friends are not interested in travelling	.84		
Physical condition			
I don't have the energy to travel	.85	9.64	.81
I have dietary consideration that limits my travel	.69		
I fear of travel on certain forms of transportation	.86		
Total variance		57.08%	

4.2.3.3 Travel motivation

Twenty items were used to measure the senior tourists' travel motivation from the literature. The results of the KMO measure of sampling adequacy test (0.84) and the Bartlett's test of sphericity ($p < 0.0001$) showed that data were acceptable for factor analysis. Using Varimax rotation, the latent root criterion of 1.0 was used for factor inclusion and a factor loading of 0.40 was used as the benchmark to include items in a factor.

After deleting two items that were less than 0.40, the results of the factor analysis revealed that four factors represented 69.3% of the explained variance of the scale. In addition, the analysis of EFA resulted in four groupings of travel motivation; socialization, physical health, internal motivation, and novelty. The reliability of each factor was greater than 0.70. The included items within a factor were calculated to create a composite factor score. Table 7 provides a summary of the results of EFA of senior tourists' travel motivation.

Table 7. Exploratory factor analysis of travel motivation

	Factor loading	Value explained	Cronbach alpha
Socialization		*25.4*	*.83*
Resting and relaxing	.84		
Enjoying life	.87		
Spending time with immediate family and relatives	.88		
Meeting new people and socializing while travelling	.86		
Spending time with a group of good friends	.74		
Visiting friends and relatives who live in other cities	*.67*		
Physical health		20.1	.75
Engaging in physical activities	*.72*		
Having opportunities for doing sports	.76		
Improving health/physical fitness	.78		
Internal motivation		18.4	.88
Seeking intellectual enrichment	.80		
Seeking spiritual enrichment	.91		
Feeling a sense of self-fulfillment	.87		
Nostalgic reminiscence	.95		
Visiting places I have always wanted to go	.88		
Experiencing different cultures and ways of life	.89		
Novelty		5.4	.82
Seeing how other people live	*.71*		
Seeing the things that I don't normally see	*.90*		
Visiting new places and see new things	.87		
Total variance		69.3%	

4.2.3.4 Satisfaction with health life domain

The construct of satisfaction with health life domain was examined by measuring physical and mental health status. Three items were used from the previous literature. The results of the KMO measure of sampling adequacy test (0.68) and the Bartlett's test of sphericity ($p< 0.0001$) showed that data were acceptable for factor analysis. The factor analysis with Varimax rotation indicated that three items loaded on one factor (Table 8). The factor represented 78.5% of the explained variance. The Cronbach's alpha reliability estimates 0.86.

Table 8. Exploratory factor analysis of satisfaction with health life domain

	Factor loading	Value explained	Cronbach alpha
			.86
I am satisfied with my health in general.	.90		
I am satisfied with physical well-being	.93		
I am satisfied with physical fitness	.81		
Total variance		78.5%	

4.2.3.5 Satisfaction with family life domain

The construct of satisfaction with family life included four indicators. A principle component factor analysis with Varimax rotation was conducted to examine the scale items. The result of the KMO test indicated an acceptable level of 0.69. Bartlett's test of sphericity was also found to be significant at a level of 0.0001. The principle component factor analysis revealed that one factor was derived represented 77.9% of the explained variance of the scale (Table 9). The reliability coefficient was 0.85, which exceeded the recommended reliability score of 0.70.

Table 9. Exploratory factor analysis of satisfaction with family life domain

	Factor loading	Value explained	Cronbach alpha
			.85
I am satisfied with my family relationship in general	.91		
I am satisfied with family's happiness	.91		
I am satisfied with relationship with relatives	.81		
I am satisfied with my relationship with my spouse (or family members)	.80		
Total variance		77.9%	

4.2.3.6 Satisfaction with social life domain

The construct of satisfaction with social life was examined using three indicators. From a principle component factor analysis, results of the KMO measure of sampling adequacy test (0.74) and Bartlett's test of sphericity ($p< 0.0001$) implied that the data was appropriate for factor analysis. The principle component factor analysis showed that one factor represented 81.17 % of the explained variance of the scale (Table 10). All factor loadings were greater than 0.70.

Table 10. Exploratory factor analysis of satisfaction with social life domain

	Factor loading	Value explained	Cronbach alpha
			.88
I am satisfied with my friendships in general	.91		
I am satisfied with the things I do with other people	.90		
I am satisfied with my interaction with others	.89		
Total variance		81.17%	

4.2.3.7 Satisfaction with emotional life domain

The construct of satisfaction with emotional life was examined as using three indicators. The results of the KMO measure of sampling adequacy test (0.69) and Bartlett's test of sphericity ($p < 0.0001$) indicated that data were acceptable for factor analysis. The principle component factor analysis with Varimax rotation showed that three items loaded on one factor (Table 11). The factor represented 78.51 % of the explained variance. The Cronbach's alpha reliability estimates 0.86.

Table 11. Exploratory factor analysis of satisfaction with emotional life domain

	Factor loading	Value explained	Cronbach alpha
			.86
I am satisfied with achieving self-fulfillment.	.86		
I am satisfied with achieving emotional health.	.93		
I am satisfied with achieving personal goals and hopes.	.87		
Total variance		78.51%	

4.2.3.8 Satisfaction with leisure life domain

The construct of satisfaction with leisure was examined as three indicators. From a principle component factor analysis, results of the KMO measure of sampling adequacy test (0.77) and Bartlett's test of sphericity ($p < 0.0001$) showed that data were satisfactory for factor analysis. The factor analysis with Varimax rotation revealed that three items loaded on one factor (Table 12). The factor represented 90.4 % of the explained variance of the scale.

Table 12. Exploratory factor analysis of satisfaction with leisure life domain

	Factor loading	Value explained	Cronbach alpha
			.95
I am satisfied with my leisure life.	.96		
I am satisfied with my leisure time.	.95		
I am satisfied with spare time activities.	.94		
Total variance		90.4%	

4.2.3.9 Overall quality of life (QoL)

The construct of overall quality of life was measured by six indicators from Satisfaction with Life Scale (SWLS) and additional items from previous tourism research. The results of the KMO measure of sampling adequacy test (0.88) and Bartlett's test of sphericity ($p< 0.0001$) revealed that data were appropriate for factor analysis. The results of factor analysis showed that one factor represented 70.25% of the explained variance of the scale (Table 13). All factor loadings were greater than 0.80. The reliability for six items was 0.91.

Table 13. Exploratory factor analysis of overall quality of life

	Factor loading	Value explained	Cronbach alpha
			.91
The conditions of my life are excellent and I am satisfied with my life.	.84		
My satisfaction with life in general was increase shortly after trip.	.86		
Overall, I felt happy upon my return from trip.	.82		
Although I have my ups and downs, in general, I felt good about my life.	.85		
Overall, my experiences with my life are memor able and have enriched my quality of life.	.85		
After trip I felt that I lead a meaningful and ful filling life.	.80		
Total variance		70.25%	

4.3 DATE COLLECTION AND SAMPLE

This section of the chapter presented information on the final survey method and sample. Also, the results of the response rate and the demographic profiles of the final sample were discussed.

4.3.1 Survey method and sample

A self-administered survey was utilized to collect the data. Jeju, South Korea has two main administrative district cities: Jeju and Seogwipo. Data were collected from two senior education centers, one welfare center, and gathering/social clubs in each city. Several well-trained assistants were employed to distribute the survey questionnaire in each place in order to help the seniors fill out the questionnaire successfully. 70 questionnaires for each place were distributed for a total of 560 surveys in January to February 17 of 2015. Within about two months, 420 respondents participated in the survey. Among these respondents, some were filtered based on a screening question (age and retirement). Only people who were over 65 and retired could participate in the survey. 380 respondents were filtered out at the beginning of the survey and an additional 52 responses were incomplete, so these were deleted. Next, the unusable responses that tended to answer in a certain direction or consciously misrepresent the truth were deleted. Therefore, a total of 328 responses were used for data analysis.

4.3.2 Profiles of the respondents

The general demographic information of the total sample was explained in this section in order to provide a descriptive profile of the survey respondents. Of the 328 respondents, gender was evenly distributed, showing that 166 (50.6 %) were male while 162 (49.4%) were female. Among the respondents, 58.8% were aged between 65 and 69 and

30.2% of the respondents were between the ages of 70-75. The remaining respondents were over the age of 75. In terms of education level, 32.1% of respondents completed at least some college education, 29.6% had a college degree, 15.8% had finished high school or less, 12.2% had master degrees, and 11.0% had doctoral degrees. Income sources for 41.8% of respondents came from their pensions. The remaining 51.2% of respondents relied on their own savings (27.4%), are supported by their children (8.8%) or relatives and friends (1.8%), receive social benefits (14.0%), or have other sources of income (6.1%). Moreover, 32.6% of the respondents have been retired for 3 years, followed by 2 years (28.4%), 4 years (15.2%), more than 5 years (14.0%), or for 1 year (9.7 %). Table 14 summarized the results of demographic information of the sample.

Table 14. Demographic profile of the sample

Category	Frequencies (%)
Gender	
Female	162 (49.4%)
Male	166 (50.6%)
Age	
65 -69	193 (58.8%)
70-75	99 (30.2%)
Over 75	36 (11.0%)
Education Level	
High school or less	52 (15.8%)
Some college/ Associate degree	103 (32.1%)
College degree (bachelor)	97 (29.6%)
Post-graduate degree (master)	40 (12.2%)
Post-graduate degree (doctoral)	36 (11.0%)
Who do you live with	
Alone	79 (24.1%)
With Spouse	209 (63.7%)
With Family members	35 (10.7%)
Other	5 (1.5%)
Primary income source	
Pension	137 (41.8%)
Own saving	90 (27.4%)
Children' donation	29 (8.8%)
Relative's or friend's donation	6 (1.8%)
Social benefit	46 (14.0%)
Others	20 (6.1%)
How long have you been retired	
1 year	32 (9.7%)
2 years	93 (28.4%)
3 years	107 (32.6%)
4 years	50 (15.2%)
More than 5years	46 (14.0%)

4.3.3 Descriptive statistics, Skewness, and Kurtosis

Assumptions of Structural Equation Modeling (SEM) analysis were carefully checked before conducting data analysis including the univariate and multivariate normality, outliers, and missing values, which could invalidate statistical hypothesis testing (Hair et al., 2010).

First, the frequency distributions for each variable in the study were examined to ensure that the data was "clean". Next, central tendency was conducted for each of the measurement items. The mean scores and standard deviation of each variable are displayed in Appendix B. To examine the normal distribution of the data, the skewness and kurtosis of each variable were thoroughly investigated. The skewness value refers to an indication of the symmetry of the distribution, while kurtosis shows whether data has a 'peakedness' of the distribution. Skewness of the data was investigated in each variable. If the distribution is perfectly normal, a skewness and value is 0 (Pallant, 2010). The critical cut-off value for skewness measure of normality is drawn from a z distribution. In order to detect the skewness of each variable in the research model, the SPSS software package was utilized.

The value of 'zero' for skewness and kurtosis assumes normal distribution of the data distribution. According to Hair et al. (2010), the Z value of ±2.58 indicates the rejection of the normality assumption at the 0.01 probability level, and ±1.96 (0.05 error level). Each of the skewness values was presented in Appendix A. It is apparent that no measurement indicator fell outside the ±1.96 range for skewness. Hence, the study assumes that all of the indicators used in this study are reasonably free from skewness, implying that the data did not violate the normal distribution assumption.

Next, kurtosis was also investigated in each indicator. Kurtosis measures how observations "cluster around a central point" for a given standard distribution (Pallant, 2010). Distributions that are more peaked than normal are called leptokurtic whereas those that are flatter than normal are referred to as platykurtic. Positive values for kurtosis show that a

distribution has a higher than normal peak. None of the variables fell outside ±2.56 range for kurtosis. Therefore, the study can conclude that none of the variables were leptokurtic or platykurtic. In terms of multivariate normality, relative multivariate kurtosis (1.351) was smaller than 2.0 that means the distribution of all variable combinations was normal.

4.4 DATA ANALYSIS

In this section, the results of the statistical analysis of the data were discussed. Each construct was analyzed with Confirmatory Factor Analysis (CFA) to determine the measurement scale property in the model. A series of CFA analyses were performed. Firstly, the results of the CFA of the constructs which have sub-dimensions is presented (personal values, travel constraints, travel motivation, satisfaction with life domains) were presented. After confirming the each sub-dimension of the constructs, a composite scale was constructed for each construct. Also the results of the CFA of construct of satisfaction with health life domain and overall quality of life were presented. Then, the results of the overall measurement model, including all constructs, were presented. Lastly, the results of the structural equation modeling were presented to test the hypotheses.

4.4.1 Confirmatory Factor Analysis (CFA)

CFA was employed to test the measurement model of the study specifying pre-specified relations of the observed indicators of the underlying constructs. The purpose of CFA is to investigate whether the collected data fit a hypothesized model, or a priori specified model (Hair et al., 2010). Therefore, CFA is designed to identify and cluster the observed indicators in a pre-specified, theory-driven hypothesized model to evaluate to what extent a particular collected data fits what is theoretically believed to be its underlying

constructs. For this study, CFA was conducted to examine the measurement scale of the perception of senior tourists' personal values, travel constraints, travel motivation, satisfaction with life domains, satisfaction with heath life domain, and overall quality of life.

As proposed in the pre-test section, senior tourists' personal values consisted of two sub-dimensions (internal values and external values); travel constraints was consisted of three sub-dimension (external resources, approval and social condition, and physical condition); travel motivation was composed of four sub-dimensions (socialization, physical health, internal motivation, and novelty); satisfaction with the life domain was composed of four sub-dimensions (family life, social life, emotional life, and leisure life); satisfaction with health life domain consisted of three indicators; and overall quality of life included six items.

As presented in the previous section of this chapter, the model estimation process for each CFA and SEM model was presented with statistical results. Following goodness-of-fit statistics were used to evaluate the proposed model. Modification indices, Absolute Fit Measures including Chi-square (χ^2) of estimate model, Goodness-of-fit index (GFI), Root mean square residual (RMR) and Root mean square error of approximation (RMSEA), Incremental Fit Measures (Adjusted goodness-of-fit index (AGFI), and Normed fit index (NFI)) and Parsimonious Fit Measures (Parsimony goodness-of-fit index(PGFI), Parsimony normed fit index (PNFI), Comparative fit index (CFI), and Incremental fit index (IFI)) were utilized.

In order to conduct the CFA, software program AMOS 20.0 with the Maximum Likelihood (ML) method of parameter estimation was employed since the collected usable sample was relatively large (n=328), the measurement scales were continuous variables, the normal distribution of the observed indicators and multivariate normality were ensured based on the results of skewness and kurtosis.

4.4.1.1 CFA for personal values

Personal values is composed of two sub-dimensions: (1) internal values and (2) external values. As discussed in the pre-test section, six indicators loaded onto internal values and three loaded onto external values. Firstly, a separate confirmatory factor analysis was performed for each sub-dimension with indicators

Firstly, six observed indicators were used to assess internal personal values. Among these indicators, 'being well respected' had a low contribution. After deleting one indicator, the model fit of socialization is increased; χ^2 (5) =56.05 (p= 0.00), CFI= 0.90, GFI= 0.94, NFI= 0.90, RMSEA= 0.08, RMR= 0.03. Therefore, five indicators remained to measure internal personal values (Table 15). The completely standardized factor loadings revealed comparatively high loadings, ranging from 0.67 to 0.94. In terms of estimating the squared multiple correlations (R^2), which are used to examine the extent to which the measurement model adequately represents the observed indicators. R^2 values ranged between 0.45 and 0.88. These coefficient scores also serve as indicator reliabilities. The composite reliability of this measurement construct resulted in 0.90, which highly exceeded the recommended threshold level of 0.70 (Hair et al., 2006). The extracted variance for the construct of the internal personal values revealed a value of 0.65, which matched the recommended level of 0.50. Overall, the internal personal values construct retained five observed indicators with satisfactory results of fit indices.

Three indicators were utilized to measure external values. All three indicators had one dimensionality, and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00). In terms of other coefficient values, t-values were significant at a level of 0.001 and the completely standardized factor loadings revealed comparatively high loadings, ranging from 0.73 to 0.85 (Table 15). The squared multiple correlations (R^2) ranged between 0.53 and 0.72. The composite reliability of

this measurement construct resulted in 0.85, which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the construct of the material life satisfaction revealed a value of 0.65, which exceeded the recommended level of 0.50. Overall, the construct of external personal values retained three observed indicators with satisfactory results of fit indices.

The composite reliability and variance extracted of the construct were calculated using the following formula (Fornell & Larcker, 1981). The calculation of composite reliability estimates is:

$$(\Sigma Li)2/((\Sigma Li)2 + \Sigma Var(Ei))$$

The calculation of Variance extracted as:

$$\Sigma Li2/(\Sigma Li2 + \Sigma Var(Ei))$$

Table 15. CFA of sub-dimensions of personal values

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance Extracted
Internal values		**.90***	**.65****
Self-fulfillment	.67	.45	.55
Self-respect	.90	.81	.19
Sense of accomplishment	.94	.88	.12
Excitement	.81	.66	.34
Fun and enjoyment in life	.69	.47	.53
External values		**.85***	**.65****
Sense of security	.85	.72	.28
Sense of belonging	.84	.71	.29
Warm relationship	.73	.53	.47

* Composite reliability
** AVE

4.4.1.2 CFA for the travel motivation

Travel motivation is composed of four sub-dimensions (1) socialization (2) physical health (3) internal motivation, and (4) novelty. A separate confirmatory factor analysis was performed for each sub-dimension with indicators. Based on the modifications indices, error variance, and standardized loadings the sub-dimension was re-specified to increased model fit. Assessing each sub-dimension of travel motivation resulted in change to the indicators in the sub-dimensions.

First, six observed indicators were used to assess socialization. Among these indicators one indicator that had a large residual were deleted: 'resting and relaxing'. As indicated in the literature review part, 'resting and relaxing' indicators were not related to socialization dimension. After deleting one indicator, the model fit of socialization is increased; χ^2 (5) =15.04 (p=.00), CFI= 0.96, GFI= 0.98, NFI= 0.95, RMSEA= 0.06, RMR= 0.02. Therefore, five indicators were remained to measure socialization.

For the physical health, all three indicators had one dimensionality and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = .00, p =1.00). Therefore, refinement was not needed. The completely standardized factor loadings showed relatively high loadings, ranging from 0.82 to 0.89 and the result of the composite reliability and variance-extracted estimation for the community life is also relatively high.

Six observed indicators were used to assess internal motivation. Among these indicators two indicator that had a low contribution were deleted: 'experiencing different cultures and ways of life' and 'visiting places I have always wanted to go'. After deleting two indicator, the model fit of the emotional life is increased; χ^2 (2) =21.779 (p=.00), CFI= 0.96, GFI=0.97, NFI=0.96, RMSEA=0.08, RMR=0.04. Therefore, four indicators were remained to measure the internal motivation.

For the novelty, all three indicators had one dimensionality and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = .00, p =1.00). Therefore, refinement was not needed. The completely standardized factor loadings showed relatively high loadings, ranging from 0.79 to 0.87 (Table 16) and the result of the composite reliability and variance-extracted estimation is also relatively high.

After assessing the uni-dimensionality of each sub-dimension individually, the indicators of the sub-dimension were summated and used as individual observed variables to test the construct of travel motivation.

Table 16. CFA of the sub-dimensions of travel motivation

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
Socialization		**.89***	**.61****
Enjoying life	.78	.61	.39
Spending time with immediate family and relatives	.71	.50	.50
Meeting new people and socializing while travelling	.83	.69	.31
Spending time with a group of good friends	.79	.62	38
Visiting friends and relatives who live in other cities	.82	.67	.37
Physical health		**.89***	**.73****
Engaging in physical activities	.82	.67	.33
Having opportunities for doing sports	.89	.79	.21
Improving health/physical fitness	.86	.74	.26
Internal motivation		**.91***	**.72****
Seeking intellectual enrichment	.89	.79	.21
Seeking spiritual enrichment	.88	.78	.22
Feeling a sense of self-fulfillment	.76	.58	.42
Nostalgic reminiscence	.84	.71	.29
Novelty		**.87***	**.64****
Seeing how other people live	.87	.65	.45
Seeing the things that I don't normally see	.85	.72	.28
Visiting new places and see new things	.79	.62	.38

* Composite reliability, ** AVE

4.4.1.3 CFA for the travel constraints

Travel constraints is composed of three sub-dimensions: (1) external resources (2) approval and social condition, and (3) physical condition. A separate confirmatory factor analysis was performed for each sub-dimension with indicators. Based on the modifications indices, error variance, and standardized loadings, the sub-dimension was re-specified to the increased model fit. After the uni-dimensionality of each sub-dimension was verified, the indicators of the sub-dimension were summated and used as individual observed variables to test the construct of travel constraints. Table 17 summarized the CFA results of the sub-dimensions of travel constraints

Six observed indicators were used to assess external sources. Among these indicators two indicators that had a low contribution (factor loading .46 and .43) were deleted: 'I have no time to take a trip' and 'I have more important thing to do than travel 'After deleting two indicator, the model fit of the emotional life is increased; χ^2 (2) =27.75 (p=.00), CFI=0.92, GFI=0.96, NFI= 0.91, RMSEA=0.08, RMR=0.05. Therefore, four indicators were remained to measure the travel constraints of external source.

For the approval and social condition, among six indicators two indicators that had a low contribution were deleted: 'I would feel guilty about travelling' and 'Concern for family doesn't allow me travel'. After deleting two indicator, the model fit of the emotional life is increased; χ^2 (2) =24.46 (p=0.00), CFI=0.96, GFI=0.96, NFI=0.96, RMSEA=0.07, RMR=0.03.

For the physical condition, all three indicators had one dimensionality and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = .00, p =1.00). Therefore, refinement was not needed. The completely standardized factor loadings showed relatively high loadings, ranging from .73 to .81 and the result of the composite reliability and variance-extracted estimation is also relatively high.

Table 17. CFA of the sub-dimensions of travel constraints

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
External sources		**.82***	**.54****
I have no information about the place to visit	.70	.49	.51
I have had difficulty getting information	.85	.72	.28
The trip requires me to do too much planning	.73	.53	.47
I cannot afford to spend money on travel	.65	.42	.58
Approval and social condition		**.87***	**.63****
My spouse dislike travel	.71	.50	.50
I fear of leaving home unattended	.79	.62	.38
I don't' have companion to travel with	.80	.64	.36
My family and friends are not interested in travelling	.87	.76	.24
Physical condition		**.82***	**.60****
I don't have the energy to travel	.81	.66	.34
I have dietary consideration that limits my travel	.79	.62	.38
I fear of travel on certain forms of transportation	.73	.53	.47

* Composite reliability
** AVE

4.4.1.4 CFA for the satisfaction with domains

Satisfaction with life domains is measured by three sub-dimensions: (1) family life (2) social life, (3) emotional life and (4) leisure life. Before testing the overall confirmatory measurement for the life satisfaction with life domains, the measurement of each sub-dimension was examined individually.

First, four observed indicators were used to assess the satisfaction with family life domain. Among these indicators, one indicator that had a low contribution were deleted. After deleting one indicator, the proposed model has only three indicators. Thus, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00). Therefore, three indicators remained to measure the satisfaction with family life domain. The completely standardized

factor loadings showed relatively high loadings, ranging from 0.64 to 0.91. The squared multiple correlations (R^2) ranged between 0.41 and 0.83. The composite reliability of this measurement construct resulted in 0.86 which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the construct of satisfaction with family life domain revealed a value of 0.68 which exceeded the recommended level of 0.50 (Table 18).

Three indicators were utilized to measure the satisfaction with social life domain. All three indicators had one dimensionality, and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00). The completely standardized factor loadings showed relatively high loadings, ranging from 0.83 to 0.86 (Table 18). The squared multiple correlations (R^2) ranged between 0.69 and 0.74. The composite reliability of this measurement construct resulted in 0.88, which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the construct of the material life satisfaction revealed a value of 0.72, which exceeded the recommended level of 0.50. Overall, the construct of satisfaction with social life domain retained three observed indicators with satisfactory results of fit indices.

Three indicators were utilized to measure satisfaction with the emotional life domain. All three indicators had one dimensionality, and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00). The completely standardized factor loadings showed relatively high loadings, ranging from 0.82 to 0.91. The squared multiple correlations (R^2) ranged between 0.67 and 0.83. The composite reliability of this measurement construct resulted in 0.89, which exceeded the recommended threshold level of 0.70 (Hair et al, 2010). The extracted variance for the construct of satisfaction with emotional life revealed a value of 0.74, which exceeded the recommended level of 0.50. Overall, the construct of satisfaction with emotional life retained

three observed indicators with satisfactory results of fit indices.

Table 18. CFA of sub-dimension of satisfaction with life domains

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
Family life		**.86***	**.68****
I am satisfied with my family relationship in general	.91	.83	.17
I am satisfied with family's happiness	.89	.79	.21
I am satisfied with my relationship with relatives	.64	.41	.59
Social life		**.88***	**.72****
I am satisfied with my friendships in general	.85	.72	.28
I am satisfied with the things I do with other people	.86	.74	.26
I am satisfied with interaction with others	.83	.69	.31
Emotional life		**.89***	**.74****
I am satisfied with achieving self-fulfillment	.82	.67	.33
I am satisfied with achieving emotional health	.91	.83	.17
I am satisfied with achieving personal goals and hopes.	.84	.71	.29
Leisure life		**.94***	**.83****
I am satisfied with my leisure life.	.95	.91	.09
I am satisfied with my leisure time.	.94	.88	.12
I am satisfied with spare time activities.	.85	.72	.28

* Composite reliability
** AVE

Last, three indicators were utilized to measure satisfaction with the leisure life domain. All three indicators had one dimensionality, and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00). The completely standardized factor loadings showed relatively high loadings, ranging from 0.85 to 0.95 (Table 18). The squared multiple correlations (R^2) ranged between 0.72 and 0.91. The composite reliability of this measurement construct resulted in 0.94, which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the

construct of satisfaction with leisure life revealed a value of 0.83, which exceeded the recommended level of 0.50. Overall, the construct of satisfaction with social life domain retained three observed indicators with satisfactory results of fit indices.

After the uni-dimensionality of each sub-dimension was verified, the indicators of the sub-dimension were summated and used as individual observed variables to test the construct of satisfaction with life domains. Four indicators were utilized to measure satisfaction with the life domains.

4.4.1.5 CFA for the satisfaction with health life domain

Three indicators were utilized to measure satisfaction with health life domain. All three indicators had one dimensionality, and since the proposed model has only three indicators, the model was saturated and the fit was perfect (Chi-square = 0.00, p =1.00).

The completely standardized factor loadings showed relatively high loadings, ranging from 0.79 to 0.89 (Table 19). The squared multiple correlations (R^2) ranged between 0.62 and 0.76. The composite reliability of this measurement construct resulted in 0.89, which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the construct of the material life satisfaction revealed a value of 0.73, which exceeded the recommended level of 0.50. Overall, the construct of satisfaction with health life domain retained three observed indicators with satisfactory results of fit indices.

Table 19. CFA of the satisfaction with health life

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
		.89*	**.73****
I am satisfied with my health in general.	.79	.62	.38
I am satisfied with physical well-being	.89	.79	.21
I am satisfied with physical fitness	.87	.76	.24

* Composite reliability, ** AVE

4.4.1.6 CFA for the overall quality of life

Six indicators were utilized to measure overall quality of life. All six indicators had one dimensionality and the overall fit of the model was acceptable: $\chi^2 = 98.816(9)$, p=0.00, CFI=0.93, GFI=0.91, NFI= 0.92, RMSEA=0.09, RMR=0.02. Therefore, refinement was not needed. The completely standardized factor loadings showed relatively high loadings, ranging from 0.71 to 0.82 (Table 20). The squared multiple correlations (R^2) ranged between 0.50 and 0.67. The composite reliability of this measurement construct resulted in 0.91, which exceeded the recommended threshold level of 0.70 (Hair et al., 2010). The extracted variance for the construct of satisfaction with emotional life revealed a value of 0.60, which exceeded the recommended level of 0.50. Overall, construct of satisfaction with the overall quality of life retained six observed indicators with satisfactory results of fit indices.

Table 20. CFA of the overall quality of life

	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
		.91*	**.60****
The conditions of my life are excellent and I am satisfied with my life.	.77	.59	.41
My satisfaction with life in general increased shortly after trip	.82	.67	.33
Overall, I felt happy upon my return from trip	.81	.66	.34
Although I have my ups and downs, in general, I feel good about my life	.82	.67	.33
Overall, my experience with my life are memorable and have enriched my quality of life	.80	.64	.36
After trip I felt that I lead a meaningful and fulfilling life	.71	.50	.50

* Composite reliability
** AVE

4.4.2 Testing the proposed model

Structural Equation Modeling (SEM) is designed to examine theory-based hypothesized models. The SEM evaluates the structure of interrelationships of the variables in the model. This study started with developing conceptual model with relationships between the latent constructs and their observed indicators.

Different from other multivariate techniques, SEM allows for estimating a series of multiple regression equations simultaneously by specifying the structural model (Hair et al., 2010). The measurement model examines how the observed indicators load on the constructs, and also shows the reliability and validity of measurement properties. A structural model specifies which of the construct(s) affect or change the values of other constructs in the model directly or indirectly (Byrne, 1998; Maruyama, 1998).

Maximum likelihood (ML) and normal theory generalizes least square (GLS) are the

most widely used techniques used to estimate the parameters of structural equation models. Both estimation techniques assume that the observed indicators are continuous and normally distributed. ML is the most common method of estimation in most SEM programs since it is less sensitive to issues created by the violations of normality. However, all indicators used in this study confirmed variable normality and multivariate normality.

Therefore, the properties of the six constructs' items in the hypothesized model and the hypotheses were tested using the AMOS 20.00 program with the maximum likelihood (ML) method of estimation. The two-stage procedure (Measurement model and Structural Equation model) was conducted.

4.4.2.1 Overall measurement model

Before evaluating the overall measurement, uni-dimensionality of individual constructs was separately tested (Sethi & King, 1994). The measurement models for each construct were re-specified according to the goodness-of-fit indices, estimated coefficient values (t-values and multiple correlations), and modification indices. Since the uni-dimensionality and reliability of each construct were tested in the previous section, the overall measurement was tested in this section. The overall measurement model consisted of six latent constructs and twenty-two observed indicators. Specifically, the perception of personal values were measured by two indicators; travel constraints were measured by three indicators; travel motivation was measured by four indicators; satisfaction with life domain was examined by four indicators; satisfaction with health life domain was examined by three indicators; and the overall quality of life was examined by six indicators (Table 21).

Table 21. Constructs and indicators of the overall measurement model

Constructs & Indicators
Personal values
Internal values
External values
Travel constraints
External resources
Approval and social condition
Physical condition
Travel motivation
Socialization
Physical health
Internal motivation
Novelty
Satisfaction with life domains
Family life domain
Social life domain
Emotional life domain
Leisure life domain
Satisfaction with health life domain
I am satisfied with my health in general
I am satisfied with physical well-being
I am satisfied with physical fitness
Overall quality of life
The conditions of my life are excellent and I am satisfied with my life.
My satisfaction with life in general was increase shortly after trip.
Overall, I felt happy upon my return from trip.
Although I have my ups and downs, in general, I feel good about my life.
Overall, my experience with my life are memorable and have enriched my quality of life.
After trip I felt that I lead a meaningful and fulfilling life.

Maximum likelihood confirmatory factor analysis requires complete data for every subject in order to preserve the integrity of the data set. The missing data of the individual cases needs to be replaced with the mean scores of that variable. In this study, there was no missing data. The confirmatory factor analysis requires the minimum number of sample size to be 200. The reason is that a small sample size may result in inflated and spurious results. Moreover, for more complex models, larger sample sizes are needed. The total of 328 completed surveys were used in this study and this sample size was considered large enough to satisfy the sample size requirement of confirmatory factor analysis.

The main purpose of the CFA is to examine whether the measurement model has an acceptable fit or not. Before testing the overall model as a whole, it is crucial to estimate the individual parameter value. First, it is necessary to check the viability of the parameters' estimated values and whether they exhibit the correct sign and size to be consistent with the underlying theory. Secondly, the statistical significance of parameter estimates using t-statistic (the parameter estimate divided by its standard error) was checked. A t-test statistic that is larger than ±1.96 reveals that the parameter estimate is significant at a 0.05 probability level.

Table 22 showed the unstandardized parameter estimates for the proposed measurement model. In the table 22, each observed indicator contains three lines of information. The first line refers to the estimate, the parentheses value represents the standard error, and the third line detonates the t-value. An examination of the unstandardized parameter estimation indicates all estimates to be both reasonable and statistically significant.

Table 22. Parameter estimates for the overall measurement model

LAMDA -X		PV	TC	TM	SL	SH	QL
PV 1		1.00					
PV 2	E	1.12					
	SE	(.07)					
	T	15.12					
TC 1			1.00				
TC2	E		1.52				
	SE		(.19)				
	T		7.87				
TC3	E		1.43				
	SE		(.18)				
	T		7.82				
TM 1				1.00			
TM 2	E			1.27			
	SE			(.19)			
	T			8.37			
TM 3	E			1.62			
	SE			(.13)			
	T			12.78			
TM 4	E			1.73			
	SE			(.14)			
	T			11.99			
SL 1					1.00		
SL 2	E				1.32		
	SE				(.12)		
	T				11.06		
SL 3	E				1.49		
	SE				(.13)		
	T				11.29		
SL 4	E				1.36		
	SE				(.13)		
	T				10.82		
SH 1	E					.855	
	SE					(.05)	
	T					16.95	
SH 2	E					.925	
	SE					(.05)	
	T					16.95	
SH 3						1.00	
QL 1	E						1.05
	SE						(.08)
	T						13.90
QL 2	E						1.10
	SE						(.08)
	T						14.59

QL 3	E	1.03
	SE	(.07)
	T	14.31
QL 4	E	1.02
	SE	(.07)
	T	14.47
QL 5	E	.99
	SE	(.07)
	T	14.47
QL 6		1.00

Note: E: Estimate, T: t-value, SE: Standard error, PV1: Internal values, PV2: External values, TC1: External resources; TC2: Approval and social condition, TC3: Physical condition, TM1: Socialization, TM2: Physical health, TM3: Internal motivation, TM4: Novelty, SL1: Family life domain, SL2: Social life domain, SL3: Emotional life domain, SL4: Leisure life domain, SH1: I am satisfied with my health in general, SH2: I am satisfied with physical well-being, SH3: I am satisfied with physical fitness, QL1: The conditions of my life are excellent and I am satisfied with my life, QL2: My satisfaction with life in general was increase shortly after the trip, QL3: Overall, I felt happy upon my return from that trip, QL4: Although I have my ups and downs, in general, I felt good about my life, QL5: Overall, my experience with my life are memorable and have enriched my quality of life, QL6: After trip I felt that I lead a meaningful and fulfilling life

As a next step, the reliability and validity of the overall model fit were examined. First, the squared multiple correlation (R^2) values were estimated to determine whether the observed indicators adequately represent the measurement model and determine the indicator reliability. The examination of squared multiple correlation values indicates that the measurement scale is reliable and strong. After confirming the adequacy of the individual indicators, the composite reliability, variance extracted estimate, and average variance extracted estimate for each latent factor was examined. As results show in table 23, composite reliability of each construct was above 0.70, ranging between 0.73and 0.91. The entire AVE estimate also indicated satisfactory results of fit indices with the exception of the travel constraints. However, the composite reliability scores that is over .70 represent the lower limit of acceptability (Hair et al, 2006). Therefore, this value were accepted as marginally reliable measurement scales.

Table 23. CFA results for the overall measurement model

Constructs & Indicators	Standardized loading (Li)	Reliability (Li^2)	Error/ Variance extracted
		.86*	**.75****
Personal values	.87	.76	.24
Internal values	.86	.74	.26
External values			
Travel constraints		**.73***	**.48****
External resources	.53	.28	.72
Approval and social condition	.75	.56	.44
Physical condition	.77	.59	.41
Travel motivation		**.82***	**.54****
Socialization	.65	.42	.58
Physical health	.52	.27	.73
Internal motivation	.90	.81	.19
Novelty	.80	.64	.36
Satisfaction with life domains		**.83***	**.54****
Family life domain	.62	.38	.62
Social life domain	.77	.59	.41
Emotional life domain	.80	.64	.36
Leisure life domain	.75	.56	.44
Satisfaction with health life domain		**.89***	**.72****
I am satisfied with my health in general.	.79	.62	.38
I am satisfied with physical well-being.	.89	.79	.21
I am satisfied with physical fitness.	.87	.76	.24
Overall quality of life		**.91***	**.63****
The conditions of my life are excellent and I am satisfied with my life	.78	.61	.39
My satisfaction with life in general was increase shortly after trip	.82	.67	.33
Overall, I felt happy upon my return from trip,	.81	.66	.34
Although I have my ups and downs, in general, I felt good about my life	.82	.67	.33
Overall, my experience with my life are memorable and have enriched my quality of life	.81	.66	.34
After trip I felt that I lead a meaningful and fulfilling life	.73	.53	.46

4.4.2.2 Fit indices

In confirmatory factor analysis, numerous statistical tests are conducted to determine how well the proposed model fits to the data. According to the recommendations of the researchers from a number of difference disciplines, various types of fit indices including absolute fit indices, incremental fit indices, parsimonious fit indices, and the $\chi 2$ were used to evaluate fit of the proposed model

Absolute fit indices

Absolute fit indices determine the measures of how well the specified model fit the collected data. As such, they present the basic assessment of how well the study's theory reproduces the data. Each model can be evaluated independent of other possible models (Hair et al., 2010). The study used four different absolute fit indices to evaluate the proposed model: 'the Goodness of fit index (GFI)', Chi-square (χ^2) of the estimate model', 'the Root mean square residual (RMR)', and 'the Root mean square error of approximation (RMSEA)'.

The goodness of fit index (GFI) represents a measure of fit between proposed model and relative amount of variance and covariance in collected data. The GFI can range from 0 to 1. The higher values, the better the model fit. GFI values of over 0.90 typically are indicated as good model fit. GFI value for the overall measurement model was 0.90 which indicates the proposed model is good enough. The study also considered other fit indices including CFI and RMESA, the study concluded that the sample data fit fairly well.

The root mean square residual (RMR) is a measure of the average of the fitted residual. RMR can be interpreted in association to the sizes of the observed variance and covariance in the collected data. The low value of RMR refers to better model fit and high values denote worse model fit. The well-fitted model should be close to 0.05 to less of RMR. RMR value in this model was 0.03, which met the cut-off value.

The root mean square error of approximation (RMSEA) deals with issues related to sample size and is one of the most popular measures to correct for the tendency of the $\chi 2$ GOF test statistics to reject the proposed models with large sample size and large observed variables. The acceptable range of a RMSEA value can be from 0.05 to 0.08. The RMSEA value in this study was 0.06 indicating that the proposed model was acceptable (Table 24).

Incremental fit indices

Incremental fit indices are measures for assessing how well the target model fits to the baseline model relatively. The baseline model (or null model) is assumed all observed indicators are uncorrelated, which suggests that no model specification could possibly improve the model, because it contains no multi-item factors or relationship between them (Hair et al., 2010). In this study, five incremental fit indices including 'the Normed fit index (NFI)', 'the parsimony Normed Fit Index (PNFI)', and 'the Comparative Fit Index (CFI)', and 'the Incremental Fit Index (IFI)' were used to evaluate the proposed model.

The comparative fit index (CFI) is an incremental fit index that examines the model fit by comparing the discrepancy between the sample data and the proposed model, and is also known as an improved version of the normed fit index (NFI). The value of the CFI can range from 0 to 1 with higher values showing better model fit. The CFI of this overall measurement model is 0.95, which implied that the proposed model has an acceptable fit to the data.

The normed fit index (NFI) examines the differences between $\chi 2$ value of the proposed model and $\chi 2$ value of the null model. The possible ranges of NFL are between 0 and 1. With a value of greater than 0.90, the proposed model fits well to the sample data. The NFI was 0.90 as shown in Table 24.

The non-normed fit index (NNFI) compares the proposed model with the independence model and resolves some of the issues related to negative bias. The values of NNFI were 0.90, which showed that the proposed overall measurement model represented an adequate fit to the sample data.

Parsimonious fit indices

Parsimony fit indices are conceptually similar to the notion of an adjusted R^2 in the sense that the related model fit to model complexity (Hair et al., 2010). More complex models are expected to fit the data better, so fit measures must be relative to model complexity before comparisons between models can be made. Parsimonious fit can be evaluated by 'Adjusted Goodness of Fit Index (AGFI)', 'Parsimony Normed Fit Index (PNFI)', and the Parsimony Goodness of Fit Index (PGFI)'.

The Adjusted Goodness of Fit Index (AGFI) adjusts the GFI, which is affected by the number of indicators of each latent variable. It is adjusted by the ratio of degrees of freedom for the proposed model to the degrees of freedom for the null model. It is generally recommended that a value greater than 0.9 is an acceptable level for a good fit. The AGFI penalizes more complex models than those with a minimum number of free paths.

The PNFI adjusts the normed fit index (NFI) and examines the difference between the chi-squared value of the proposed model and the null model. It is genially recommended that a value greater than 0.5 is an acceptable level for a good fit. The values of PNFI were 0.75, which showed the adequate level for a good fit.

Parsimony goodness of fit (PGFI) presents parsimony of the model in SEM. It considers the complexity of the model in assessing the overall model fit. The threshold value of parsimony-based indices is lower than the threshold level of normed indices of fit. The

PGFI value of the hypothesized measurement model represented in Table 24 seems to be consistent with the previous fit statistics.

Table 24. Fit indices for the overall measurement model

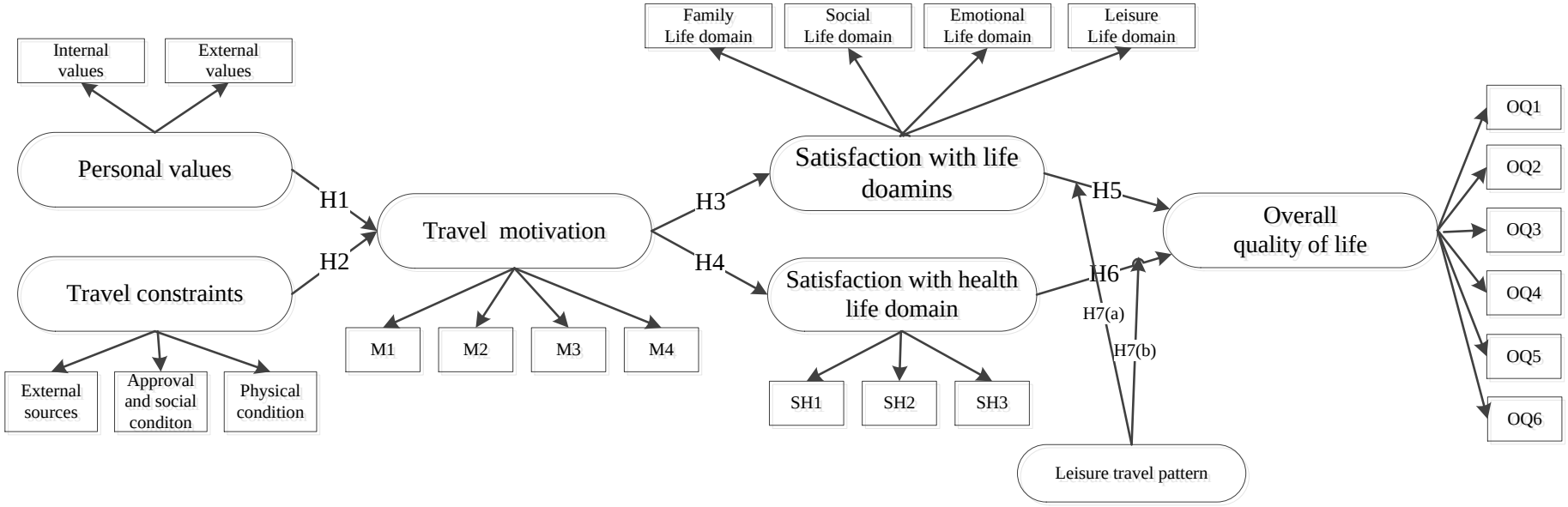
Fit indices	Value
Absolute Fit Measures	
Chi-Squares ($\chi 2$) of estimate model	412.705(df =192, p= .00)
Goodness-of-fit index (GFI)	.90
Root mean square residual (RMR)	.03
Root man square error of approximation (RMSEA)	.06
Incremental Fit Measures	
Comparative fit index (CFI)	.95
Normed fit index (NFI)	.90
Parsimonious Fit Measures	
Adjusted goodness of Fit Index (AGFI)	.87
Parsimony normed fit index (PNFI)	.75
Parsimony goodness of fit (PGFI)	.69

4.4.2.3 Testing the proposed model and hypotheses

The study's main objective is to develop and test an integrated model that would link senior tourists' behavior to their Quality of Life (QoL). More specifically, the primary purpose is to examine: (1) the effect of personal values on travel motivation of senior tourists (2) the effect of travel constraints on travel motivation of senior tourists, (3) the effect of travel motivation on satisfaction with salient life domains (family, social, emotional, leisure, and health) of senior tourists, and (4) the effect of satisfaction with salient life domains

(family, social, emotional, leisure, and health) on overall QoL of senior tourists.

The structural model consisted of two exogenous constructs and four endogenous constructs, as presented in figure 5. The properties of the six constructs are as follows: two exogenous – personal values and travel constraints, four endogenous – travel motivation, satisfaction with life domains, satisfaction with health life domain, and overall quality of life. A total of 22 observed indicators were used to measure the exogenous (5 indicators) and endogenous (17 indicators) constructs. The reliability and validity of individual and overall measurement scales were confirmed earlier.



Note: M1: Socialization, M2: Physical health, M3: Internal motivation, M4: Novelty, SH1: I am satisfied with my health in general, SH2: I am satisfied with physical well-being, SH3: I am satisfied with physical fitness, QL1: The conditions of my life are excellent and I am satisfied with my life, QL2: My satisfaction with life in general was increase shortly after the trip, QL3: Overall, I felt happy upon my return from that trip, QL4: Although I have my ups and downs, in general, I felt good about my life, QL5: Overall, my experience with my life are memorable and have enriched my quality of life, QL6: After trip I felt that I lead a meaningful and fulfilling life

Figure 5. Theoretical structural model

In SEM, hypotheses testing was conducted to find out the relationships between the exogenous and endogenous constructs. Two types of matrices specify the relationships: a Gamma matrix (γ) and a Beta matrix (β) (Bollen, 1989; Byrne, 1998; Mueller, 1996). The Gamma matrix comprises of the regression coefficients representing relation between the exogenous constructs and the endogenous constructs while the Beta matrix refers to the regression coefficients that link the endogenous constructs.

The review of the hypothetical structural model revealed that the $\chi 2$ value was 492.662 with 200 degree of freedom ($p<0.000$), which showed that the model was not acceptable enough. Therefore, it is also important to check a number of other fit indices (Table 25). The CFI value of 0.93 is acceptable and the RMSEA 0.07 is also acceptable. The value of Normed fit index (NFI) and Non-normed fit index (NNFI) are also above 0.90. The review of goodness-of-fit incidences showed that the proposed conceptual model was a well-fitting model to the data.

Table 25. Fit indices for the overall measurement model

Fit indices	Value
Absolute Fit Measures	
Chi-Squares ($\chi 2$) of estimate model	492.662 (df =200, p= .00)
Goodness-of-fit index (GFI)	.89
Root mean square residual (RMR)	.03
Root man square error of approximation (RMSEA)	.07
Incremental Fit Measures	
Comparative fit index (CFI)	.93
Normed fit index (NFI)	.90
Parsimonious Fit Measures	
Adjusted goodness of Fit Index (AGFI)	.86
Parsimony normed fit index (PNFI)	.77
Parsimony goodness of fit (PGFI)	.70

4.4.2.4 Analysis of hypotheses

The results of the structural equation analysis were conducted by using AMOS software program for hypotheses testing in this study. In order to examine the relationships between the constructs, path coefficients (t-values) between the constructs were used. If the estimated t-value is greater than a critical value (t-value=1.96, P<0.05), the null hypothesis related to estimated parameter is equal to 0, in which the hypothesis is rejected.

In this section, a total of six hypotheses were tested by using structural equation modeling.

Hypothesis 1: Personal values have a positive influence on the travel motivation of senior.

The results of SEM analysis of hypothesis 1 showed that the path from the construct of the personal values and construct of travel motivation of senior tourists was significant and positive ($t= 8.52$, $P<0.001$). Hence, hypothesis 1 was supported. This result reveals that senior tourists' personal values such as 'fun and enjoyment in life', 'sense of accomplishment', 'excitement', 'self-respect', and 'self-fulfillment' influences their travel motivation.

Hypothesis 2: Travel constraints have a negative influence on the travel motivation of senior.

Hypothesis 2 examined the relationship between travel constraints and travel motivation of senior tourists. The postulated statement was supported by SEM analysis ($t=-2.11$, $p<0.05$). There was negative significant relationship between travel constraints and travel motivation of senior tourists Therefore, hypothesis 2 was supported

Hypothesis 3: Travel motivation has an influence on satisfaction with life domain (family, social, leisure, and emotional) of senior.

Hypothesis 3 postulated that travel motivation influences satisfaction with life domains (family, social, leisure, and emotional domain) of senior tourists. The results showed that travel motivation influenced positively satisfaction with life domains of senior tourist ($t=9.06$, $P<0.001$). Therefore, hypothesis 3 was supported. The results imply that if senior

tourists perceived high travel motivation, they were more satisfied with the life domains after their travel experience.

Hypothesis 4: Travel motivation has an influence on satisfaction with health life domain of senior.

Hypothesis 4 investigated the relationship between travel motivation and health life domains of senior tourists. The results of testing this relationship revealed that structural coefficient and t-values were positively significant (t-value=7.40, $p<0.001$), supporting hypothesis 4. This finding suggests that the higher the travel motivation, the more satisfied they were with their health life domain.

Hypothesis 5: S Satisfaction with life domains has an influence on overall QoL of senior.

Hypothesis 5 investigated the relationship between satisfaction with life domains and overall quality of life of senior tourists. The structural coefficient and t-values associated with these two constructs were positively significant (t-value= 6.97, $p<0.001$), supporting hypothesis 6. This finding suggests that the more satisfaction with the life domains senior tourist experienced in terms of family life, social, emotional life, and leisure, the more satisfied they were with their lives overall. Table 26 shows a summary of the hypothesis testing results.

Hypothesis 6: Satisfaction with the health life domain has an influence on overall QoL of seniors.

Hypothesis 6 investigated the relationship between satisfaction with health life domains and overall QoL of senior tourists. The structural coefficient and t-values associated with these two constructs were positively significant (t-value=5.51, $p<0.001$), showing support for this hypothesis. This finding suggests that the more satisfaction with the health life domain, the more satisfied they were with their lives overall.

Table 26. Summary of the hypothesis testing

	Hypothesized path	Standardized coefficients	t-value	Results
H1	Personal values -> Travel motivation	.634	8.52**	**Supported**
H2	Travel constraints -> Travel motivation	-.132	-2.11*	**Supported**
H3	Travel motivation -> Satisfaction with life domains	.840	9.06**	**Supported**
H4	Travel motivation -> Satisfaction with health domain	.488	7.40**	**Supported**
H5	Satisfaction with life domains -> Overall quality of life	.482	6.97**	**Supported**
H6	Satisfaction with health domain -> Overall quality of life	.314	5.51**	**Supported**

Note: **p<.001, *p<.05

4.4.3 Testing of the Moderating Effect

This stage of data analysis deals with the moderating effects of leisure activity patterns on the relationship between satisfaction with life domains/ health life domain and

overall quality of life. The study used the multi-group analysis to examine the moderating effect of leisure activity patterns.

The following procedures are employed to complete the analysis. First, the frequency is the behavioral dimension of leisure patterns. Frequency implies the level of involvement. Considering changes in the frequency of tourism participation creates two theoretical types of perceived post-retirement behavior: (1) Expanders—people who report participation in tourism activities at a higher frequency and (2) Reducers—people who report participation in tourism activities at the same or at a lower frequency. Seniors were not equally divided into the two types of leisure activity patterns. The first group, comprising of 37.8% of the respondents (N=124), were the expanders. The other group, which made up 62.2 % of the sample (N=204), were the reducers. Once the two groups were identified, t-test and chi-square analysis were employed to examine the demographic characteristics and general travel behavior including travel motivation and constraints of each group. Third, the hypotheses of the moderating effect are tested using multi-group analysis in SEM

First, the background and demographic characteristics were examined with type segmentation: gender, age, health perception, and income sources. Among those, gender and health perception were significantly associated with behavior type ($p < 0.05$ in Chi-square test). The frequencies of each significant background characteristic in each type segment are presented in Table 27. Each group had unique characteristics. The reducers were characterized by more males, higher percentage reported mediocre health conditions, and their pensions were their major income source. The expanders consisted of more females with a higher percentage reporting ‘very good-good’ health condition, and used their pensions as their primary income source.

Table 27. Characteristics of two groups

	Expander N=124	Reducer N=204	Total (%)
Gender *			
Female	77 (62.1%)	85 (52.5%)	162 (49.4%)
Male	47 (37.9%)	119 (58.3%)	166 (50.6%)
Age			
65-69	77 (62.1%)	116 (59.6%)	193 (58.8%)
70-75	34 (27.4%)	65 (31.9 %)	99 (30.2%)
Over 75	13 (10.5%)	23 (11.3%)	36 (11.0%)
Health perception *			
Very bad –bad	5 (4.0%)	22 (10.8%)	27 (8.2%)
Mediocre	52(41.9%)	120 (69.8%)	172 (52.4%)
Very good- good	67(51.9%)	62 (30.4%)	129 (39.3%)
Primary income source			
Pension	63 (50.8%)	74 (36.6%)	137 (41.8%)
Own saving	31 (25.0%)	59 (28.9%)	90 (27.4%)
Children' donation	5 (4.0%)	24 (11.8%)	29 (8.8%)
Relative's or friend's donation	1 (0.8%)	5 (2.5%)	6 (1.8%)
Social benefit	18 (14.5%)	28 (13.7%)	46 (14.0%)
Others	6 (4.9%)	14 (6.5%)	20 (6.1%)

Note: Pearson Chi-square * < .05

An examination of the present participation of each type in travel behavior including travel motivation and constraints showed differences in leisure participation between two groups. As demonstrated in Table 28, significant differences were found in this specific travel motivation and constraints between 'expander' and 'reducer' groups.

The results presented in Table 28 showed significant differences in travel motivation and contrails. The expanders were more associated with high motivation of 'socialization', 'physical health', 'internal motivation', and 'novelty' of senior tourists. Reducers have travel constraints of 'approval and social condition' such as I don't' have a companion to travel with, my family and friends are not interested in travelling, and my spouse dislikes travel.

Table 28. Tourist behaviors of two groups

	Expander (N=124) Mean (SD)	Reducer (N=204) Mean (SD)	t
Travel motivations			
Socialization	3.60 (.46)	3.33 (.55)	*4.62* **
Physical health	3.40 (.73)	3.08 (.89)	3.65**
Internal motivation	3.57 (.55)	3.24 (.62)	4.93**
Novelty	3.74 (.62)	3.40 (.78)	4.12**
Travel constraints			
External resources	2.51 (.78)	2.61 (.68)	*-1.12*
Approval and Social condition	2.85 (.70)	2.99 (.70)	*-1.99**
Physical Condition	2.51 (.77)	2.64 (.67)	- 1.57

Note: 1 = strongly disagree and 5 = strongly agree **P<.001, * P<.05

After identifying the two senior travel groups, the moderating effect of tourist patterns on the relationships between the satisfaction with life domains, satisfaction with health life domain, and overall QoL were tested by using the SEM. The hypotheses were listed as the following:

Hypothesis 7(a): The relationship between satisfaction with life domains (family, social, leisure, and emotional domain) and overall QoL is moderated by leisure activity patterns of senior.

Hypothesis 7(b): The relationship between satisfaction with health life domain and overall QoL is moderated by leisure activity patterns of senior.

The basic premise of this moderating effect indicated that responses to variations in the relationship between satisfaction with life domains, satisfaction with health life domain, and overall QoL depends on the leisure activity pattern. Two steps were employed to test the moderating (interaction) effect of the delineated two types, i.e., expander and reducers in changes in their travel activity before and after the retirement.

Frist, an unconstrained model (baseline model) was run without constraining any factor loading across group, and fully constraint medal was run while constraining all factor loading to be equal across the group. The result of a chi-squared (X^2) comparison of unconstrained and constrained models suggests that the paths between the expander and reducer groups were significantly different ($\Delta X^2/ \Delta df$ =47.884 (23), $p< 0.05$).

As a next step, the equality of a particular parameter between two groups was tested by constraining a path to be equal across group.

Firstly, the moderating effect of leisure activity pattern between satisfaction with life domain and overall quality of life was tested. The results showed that the paths from satisfaction with life domain and overall quality of life significantly differed across the expander and reducer group ($\Delta X^2/ \Delta df$ =5.58(1), $p< 0.05$). The path coefficients provided the estimates of the regression coefficient for two groups and the result implies that the type of leisure activity pattern moderates the effect between satisfaction with life domain and overall

quality of life such that effect is stronger for expander group than reducer group.

Second, the moderating effect of leisure activity pattern between satisfaction with health life domain and overall quality of life was tested. The results showed that the paths from satisfaction with health life domain and overall quality of life significantly differed across the expander and reducer group ($\Delta X^2/ \Delta df = 4.28(1)$, $p < 0.05$). The path coefficients provided the estimates of the regression coefficient for two groups and the result indicates that that the type of leisure activity pattern moderates the effect between satisfaction with health life domain and overall quality of life such that effect is stronger for expander group than reducer group. The results presented in Table 29 summarized the results of moderating effects of leisure activity patterns.

Table 29. Results of the moderating effects of leisure activity patterns

	Standard path coefficient		
	Expander (N=124)	Reducer (N=204)	X^2 (df) Difference
Satisfaction with life domains -> Overall quality of life	.47**	.23**	**5.58(1)***
Satisfaction with health life domain -> Overall quality of life	.32**	.29**	**4.28(1)***

Note: *p<.05, **p<.001

4.5 CHAPTER SUMMARY

Chapter four discussed the results of the pre-test of the scales and the main data analysis. The first section of the chapter presented the pre-test results. In the following section, the survey method and demographic information of the final study population were discussed. In the third section, the results of CFA and measurement modeling testing were examined. This was followed by tests of the proposed structural equation models and tests of the hypotheses. Finally, the moderating effects were tested. Table 30 presents a summary of the hypotheses testing results.

Table 30. Summary of the hypothesis testing

Hypothesis	Results
Hypothesis 1: Personal values have a positive influence on the travel motivation of senior.	Supported
Hypothesis 2: Travel constraints have a negative influence on the travel motivation of senior	Supported
Hypothesis 3: Travel motivation has a positive influence on satisfaction with life domains (family, social, leisure, and emotional) of senior.	Supported
Hypothesis 4: Travel motivation has a positive influence on satisfaction with health life domain of senior.	Supported
Hypothesis 5: Satisfaction with life domains has a positive influence on overall QoL of senior.	Supported
Hypothesis 6: Satisfaction with health life domains has a positive influence on overall QoL of senior.	Supported
Hypothesis 7(a): The relationship between satisfaction with life domains and overall QoL is moderated by leisure activity patterns of senior.	Supported
Hypothesis 7(b): The relationship between satisfaction with health life domains and overall QoL is moderated by leisure activity patterns of senior.	Supported

CHAPTER FIVE: DISCUSSION AND CONCLUSION

5.1 INTRODUCTION

The purpose of this chapter to summarize the findings of the study and their implications. First, a summary of the hypotheses testing are presented. Then the managerial and theoretical implications of the findings are discussed, which is followed by a presentation of the limitations of the study. The chapter concludes with suggestions for future research.

5.2 SUMMARY OF THE FINDINGS

The study developed and tested an integrated model that would link senior tourists' behavior to their Quality of Life (QoL): senior tourists' personal values, travel constraints, travel motivation, satisfaction with life domains, and overall quality of life. The proposed model in Figure 5 was empirically tested. Specifically, this model analyzed (1) the effect of personal values on travel motivation, (2) the effect of travel constraints on travel motivation, (3) the effect of travel motivation on satisfaction with life domains, (4) the effect of satisfaction with life domains on overall quality of life, and (5) the moderating effect of leisure activity patterns on the relationship between satisfaction with life domains and overall quality of life.

First, in order to ensure the validity and reliability of measurements, a series of procedures was followed to develop the measurement scales for the proposed constructs in this study. Measurement scales of constructs were developed based on previous studies and refined from a sample survey of professors and students. Then, a pre-test was conducted to ensure that the proposed constructs and indicators measuring these constructs were valid and reliable.

The study focused on retired senior tourists over the age of 65 and retired. The study only included the seniors who met the requirement of the screening question (age and retirement). Data were collected in Jeju, South Korea. Jeju has two main administrative district Cities; — Jeju and Seogwipo city. Thus, data were collected from two senior education centers, one welfare center, and gathering and social clubs in each city.

Through the CFA, the uni-dimensionality was confirmed and the composite reliabilities for each construct were calculated. It was indicated that all the constructs had a composite reliability score above .70, which include personal values (.86), travel constraints, (.73), travel motivation (.82), satisfaction with life domains (.83), satisfaction with health life domain (.89), and overall quality of life (.91).

As a result of hypothesis testing, personal values were found to affect travel motivation positively, while travel constraints did negatively affect travel motivation of senior tourist. In addition, travel motivation turned out to be a significant factor affecting satisfaction with family, social, emotional, leisure, and health life domain, which in turn contributes to overall quality of life. Moreover, the leisure activity patterns were identified based on changes in the frequency of travel participation after retirement: (1) Expanders—people who report participation in tourism activities at a higher frequency and (2) Reducers—people who report participation in tourism activities at the same or at a lower frequency. The reducers were characterized by more females, a higher percentage of reported mediocre health, and personal savings as their primary income source. The expanders were characterized by more males, a higher percentage of reported very good-good health, and pension as their primary income source. In the expanders, the travel motivation is higher and travel constraints of "approval and social condition" are less pronounced than in the reducers. The moderating effect of leisure activity pattern was significant

both in the relationship between satisfaction with life domain and overall quality of life, and in the relationship between satisfaction with health life domain and overall quality of life. These findings are discussed in detail in the following section.

5.3 DISCUSSION OF THE FINDINGS

This section describes the development and testing of the constructs of personal values, travel constraints, travel motivation, and satisfaction with life domains. The dimension of personal values was measured by internal and external values. The dimension of travel constraints was measured by three sub-dimensions: external resources, approval and social condition, and physical condition. The dimension of travel motivation was measured by four sub-dimensions: socialization, physical health, internal motivation, and novelty. Life domain consisted of four sub-dimensions: family, social, emotional, and leisure life. A multiple indicators measurement scale was developed for each sub-dimension of constructs and was presented in chapter three.

In chapter four, a pretest was initially performed to ensure the reliability of the measurement scale for each construct. The Exploratory Factor Analyses (EFA) were conducted to check the reliability and dimensionality of each sub-dimension of the constructs in order to prepare the proposed hypotheses testing. The result of EFA indicated acceptable reliability results for all the constructs with Cronbach's alpha values greater than .70. The measurement indicators explained satisfactory variance of the constructs.

Next, Confirmatory Factor Analysis (CFA) was conducted to ensure the uni-dimensionality of each measurement scale and satisfactory goodness-of-fit indices. The results of CFA help to screen out some indicators from the proposed model in order to produce satisfactory

goodness-of-fit indices that go along with the explanation of theory-based application. The results of CFA confirmed uni-dimensionality, reliability and validity of the measurement scale based on the completely standardized factor loadings, t value, R^2, composite reliabilities, and average variance extracted. The results showed that all of the constructs in this study had satisfactory composite reliability (over .70) and average variance extracted (over .50).

After confirming the uni-dimensionality and the proposed relationships of the constructs, the overall measurement model was tested to examine whether the theory-based measurement model fit the collected data. The fit indices were acceptable; therefore, overall measurement model was statistically significant.

5.3.1 Research questions and hypotheses

Table 30 summarizes the hypotheses tested. The findings supported eight proposed hypotheses. The rest of this section revisits the research questions and the hypotheses that were empirically tested.

5.3.3.1 Research question 1

Do personal values affect travel motivations of senior tourists?

Values had two underlying dimensions: internal and external values. These value dimensions were consistent with the study conducted by a national sample survey in the Kahle (1983) study. The value of "fun and enjoyment in life" and "self-fulfillment" were the most important values for the seniors. In terms of seniors' motivations, "novelty" and "internal motivation" are the two highest means among four travel motivation factors.

Research question 1 was addressed by H1's examining of the relationship between the perception of the personal values and the travel motivation of senior tourists. The results indicated that senior tourists' personal values significantly influence travel motivation. Further analysis of multiple regression showed that internal values affect travel motivation more than external values. The seniors who consider important "self-fulfillment," "self-respect," "sense of accomplishment," "excitement," and "fun and enjoyment in life" are more likely to be motivated to travel.

5.3.3.2 Research question 2

Do travel constraints affect travel motivations of senior tourists?

The relationship between the perception of the travel constraints and the motivation of senior tourists was examined by hypothesis 2. The results indicated that the perception of travel constraints did negatively influence the travel motivation of senior tourists. Among those travel constraints, approval and social conditions such as "concern for family doesn't allow me travel" and "I don't' have companion to travel with" were the most influential factors affecting travel motivation negatively. So, it is then meaningful to conclude that travel constraints reduce the travel motivation of seniors. But, maintaining involvement in leisure and tourism activities is essential to enhancing seniors' quality of life. The challenge, then, is for destination managers and promoters to help reduce seniors' travel constraints. For example, package tours for singles who do not have companion to travel with or connecting senior customers to each other.

5.3.3.3 Research question 3

Does travel motivation affect the satisfaction with life domains (family, social, emotional, leisure, and health) of senior tourists?

The third research question addressed the effect of travel motivation on satisfaction with salient life domains. Based on previous studies, the study found that "family," "social," "leisure," "emotional," and "health" life domain are essential life domains for seniors. Smith, Avis, & Assmann (1999) conducted a meta-analysis of QoL instruments showing that "health status" is the distinct construct of old age. In addition, a number of studies emphasized physical and mental health as predominant life domains for seniors. Thus, this study measures the health life domain separately.

The relationships between travel motivation and satisfaction with life domains and health life domain were examined by hypotheses 3 and 4. The result indicated that seniors' travel motivations such as "socialization," "physical health," "internal motivation," and "novelty" positively affect their satisfaction with life domains and health life domain, which supported hypothesis 3 and 4. The results were consistent with self-determination theory supporting that autonomous travel motivation is associated with positive outcomes such as psychological well-being. In addition, this study found that senior tourist motivations are more associated with the growth needs rather than basic needs. Thus, it can be said that a higher level of senior tourists' motivation predicts a higher level of satisfaction with life domains. Compared to the standard coefficients of two relationships, the travel motivation of seniors has a stronger effect on satisfaction with life domains than satisfaction with health life domains.

5.3.3.4 Research question 4

Does satisfaction with salient life domains (family, social, emotional, leisure, and health) affect overall QoL?

The fourth research question addressed the influence of satisfaction with life domains on overall quality of life. These relationships were examined through hypotheses 5 and 6 (H5: Satisfaction with the life domains affects overall quality of life; H6: Satisfaction with the health life domain affects overall quality of life).

The relationship between satisfaction with life domains and overall quality of life was examined by hypothesis 5. The result indicated that senior tourists' satisfaction with life domains such as "family," "social," "emotional," and "leisure" positively affects their overall quality of life. The result was consistent with the previous studies (e.g., Kruger, 2012, Kim et al., 2015; Woo et al., 2014) and the bottom-up spillover theory. For example, overall subjective well-being is affected by satisfaction with social, health, and leisure life domains. Satisfaction with a particular life domain will be influenced by lower levels of life concerns within that domain (Kruger, 2012). Thus, senior tourists' overall quality of life can be improved through satisfaction with family, social, emotional, and leisure domain after their travel.

The relationship between satisfaction with the health life domain and overall quality of life was examined by hypothesis 6. The result indicated that senior tourists' satisfaction with the health life domain positively affected their overall quality of life. The result was also consistent with the previous studies (e.g., Kruger, 2012, Kim et al., 2015). Several studies indicated that physical health conditions lead seniors to experience stress, which adversely affects their subjective well-being (e.g., Berg, Hassing, McClearn, & Johansson, 2006; Pearlin & Skaff, 1996;

Rocke & Lachman, 2008). Consistent with these findings, the study found that senior's overall quality of life is significantly determined by their satisfaction with the health life domain.

5.3.3.5 Research question 5

Do the leisure activity patterns of seniors after retirement have a moderating effect on the relationship between satisfaction with life domains and overall QoL?

The leisure activity patterns of senior tourists were determined by considering changes in the frequency of travel participation after their retirement. The study found two types of leisure activity patterns: (1) Expander and (2) Reducers. The moderating effects of leisure activity patterns were examined through hypotheses 7(a) and 7(b).

The results revealed that the type of leisure activity patterns moderated the effect between satisfaction with life domain and overall quality of life, such that the effect is stronger for those in the expander group than those in the reducer group. Thus, hypothesis 7(a) was supported. Also, hypothesis 7(b) was also supported by showing that the effect of a high involvement in tourism activity on satisfaction with the health life domain would amply seniors' overall quality of life. The findings of the study validated previous studies (e,g, Menec and Chipperfield, 1997; Silverstein and Parker, 2002) and supported for activity theory (e.g. Havighurst, 1961). Activity theory suggests that the well-being of senior citizens is encouraged by high participatory involvement in social and leisure activity. In other words, seniors who increased their leisure participation across different activities were more likely to perceive an improvement in their life satisfaction. The results of the study also showed that seniors who increased their participation in tourism activities enhanced their overall quality of life. It is plausible that their overall quality of life was greatly affected by participation of tourism.

5.3.4 Summary of the discussion

The findings of this study revealed a positive relationship between personal values and the travel motivations of seniors. This means that if the senior tourists have strong personal values, then they are more motived to travel. On the other hand, travel constraints did have a significant negative influence on travel motivation. Another finding of the study showed that travel motivation affects their satisfaction with different life domains; if they are highly motivated, they are more satisfied with their life domains including “family,” “social,” “emotional,” “leisure,” and “health life,” which in turn contributes to their overall quality of life. Findings also indicated statistical significance of the moderating effect in the model, thus suggesting that there were some meaningful moderating effects of the type of leisure activity patterns on the relationship between satisfaction with life domain, health life domain, and overall quality of life.

5.4 IMPLICATIONS

5.4.1 Managerial implications

The finding of this study extended our body of knowledge on senior tourist behavior by examining the effects of personal values and travel constraints on travel motivation and quality of life in the context of senior tourists in South Korea. The findings of this study make practical contributions to the hospitality and tourism field.

First, there exist an increasing number of seniors, and the large amount of time available to them after retirement has brought about various issues in our society. South Korea has one of the highest proportions of seniors in the world (Kim & Moon, 2011). Given this situation, it is the right time for academia to investigate the corresponding emerging markets, such as senior tourists, in countries with high population of seniors including South Korea.

The findings of this study has important practical implications for tourism or destination marketers. In order to target a diverse market profitably, destination managers should have knowledge and accurate information about the customers who make up each segment.

First, understanding senior tourists' personal values will significantly enhance destination planning and marketing. Destination managers need to think about how a destination achieve a senior tourist' desired value ends. For instance, creating an experience setting or sphere that would facilitate internal values of 'self-fulfillment', 'excitement', 'self-respected' of the senior market would be important.

Second, the findings of this study help tourism marketers develop potential tour products or programs for senior tourists. As motivation refers to understating individuals' psychological needs and wants affecting their behavior, these findings can predict senior tourist behaviors more accurately. Different from other age segments, senior tourists are more likely to pursue intrinsic

motivations such as feelings of self-fulfillment, mental and physical well-being, socialization, and nostalgic reminiscence when traveling. Therefore, tourism marketers should consider the practical implications of these motivations, which can influence quality of life.

The study additionally conducted canonical correlation analysis (CCA) to canonical variates forming product bundles by using senior tourists' push and pull (destination attributes) motivations. The results of CCA revealed three variate pairs. These canonical correlation variates are analogous to product bundles because they indicate a combination of push motivations and pull motivations (destination attributes) related to each other within the canonical functions. The first variate pair shows the push motivations of "enjoying life," "spending time with immediate family and relatives," "meeting new people and socializing while travelling," "spending time with a group of good friends," "visiting friends and relatives who live in other cities" are related directly to destination attribute of "special event and attraction," "shopping facility" and "a variety of things to do and place to go." The second variate pair includes push motivation of "engaging in physical activities," "having opportunities for doing sports," "improving health/physical fitness," "seeing how other people live," "seeing the things that I don't normally see," and "visiting new places and see new things". All of which related directly to destination attribute of "walking paths or other place to walk for exercise'," "reliable weather," "facility for physical place," and "natural scenery and landscape." The third variate pair shows the push motivation of "seeking intellectual enrichment," "seeking spiritual enrichment," "feeling a sense of self-fulfillment," and "nostalgic reminiscence" are associated with the destination attributes of "outstanding scenery," "historical city," "suitable accommodations" and "safety and security." Table 32 summarized the description of variates as push motivation and pull motivation

(attribute) bundles. By using these product bundles, tourism marketers could customize the travel products or programs to senior tourists.

Table 31. Description of variates as motivation-attribute bundles

	Push motivation	Pull motivation (destination attribute)
Variate 1	Enjoying life Spending time with immediate family and relatives Meeting new people and socializing while travelling Spending time with a group of good friends Visiting friends and relatives who live in other cities	Special event and attraction Shopping facility A variety of things to do and place to go
Variate 2	Engaging in physical activities Having opportunities for doing sports Improving health/physical fitness Seeing how other people live Seeing the things that I don't normally see Visiting new places and see new things	Walking paths or other place to walk for exercise Reliable weather Facility for physical activities Natural scenery and landscape
Variate 3	Seeking intellectual enrichment Seeking spiritual enrichment Feeling a sense of self-fulfillment Nostalgic reminiscence Visiting places I have always wanted to go	Outstanding scenery Historical city Suitable accommodations Safety and security

In addition, a further analysis of the different age groups using 'multiple classification analysis (MCA)' showed that as individuals advance in their age, the strength of the mean scores of the travel constraint items with regard to 'approval and social condition' constraints increases. But no differences are found in travel motivation factors according to age groups. A further analysis of gender and different education groups using MCA showed that there are no significant differences between males and females or their educational level in regard to personal values, motivation, and travel constraints.

Moreover, the significant relationship between satisfaction with life domains (family, social, emotional, leisure, and health) and overall quality of life has marketing and managerial implications. Quality of life is one of the major concerns among the seniors. When senior tourists are satisfied with their family, social, emotional, leisure, and health life domains after their travel, their overall quality of life is enhanced. The destination managers or marketers need to consider the strength of these relationships and preserve the seniors' quality of life, derived from life domain satisfaction and travel motivation. Further, these findings advance the idea that considering QoL—in addition to overall travel satisfaction—would benefit tourism marketers when assessing the effectiveness of their marketing programs.

The finding of the study suggests that tourism marketers should understand two types of senior tourists in terms of their leisure activity pattern and treat each type differently. The study found that the effect of high involvement in tourism activity on satisfaction with life domains would amply seniors' overall quality of life. The challenge is then for destination promoters and tourism professionals to manage reducer group to engage more tourism activity. The reducers group has some travel constraints of approval and social condition such as "I don't have companion to travel with," "concern for family doesn't allow me travel," and "concern for family doesn't allow me travel." These may be the reasons for their reduction of participation in travel activities. Research on seniors' travel constraints has widespread implications not only for tourism marketers but also for policy makers. An understanding of barriers to travel may lead to strategies for facilitating travel and tourism.

Lastly, since senior tourists constitute a significant segment of the leisure travel and tourism industry, marketers need to develop products/programs such as 'senior getaways' and

‘single senior weekend getaway’ that would appeal to the different segments of the senior market, including friends, family members, and social group members.

5.4.2 Theoretical implications

The finding of the study provide theoretical contributions. First, this study is one of the first attempts to incorporate personal values into senior tourists’ behavior. Even though values appear to have essential implications for the practitioners and researchers in tourism and hospitality industry, limited attention has been paid to the senior tourism context. Integrating values might facilitate a sociological understanding of travel motivation.

Furthermore, the results of this study contribute to explaining the missing link between travel motivation and life satisfaction among senior tourists. The results revealed that senior tourists’ motivations significantly influence life domain satisfaction, which in turn improves their overall quality of life. This result implies that senior tourists’ motivation is an important predictor of their quality of life. Therefore, the study attempted to fill a research gap in the tourism literature by revealing empirical evidence that senior tourists’ motivation is strongly related to quality of life.

This study also contributes to the theoretical advancements in the field of tourism by confirming the usefulness of bottom-up spillover theory and activity theory in explaining senior tourists’ participation in tourism activity and their quality of life. By applying two theories, the study found that overall quality of life is affected by satisfaction with life domains and sub-domains, which is influenced by participating in tourism activities.

5.5 LIMITATIONS AND FUTURE STUDY

Since the proposed research model that examines the links between senior tourists' behavior and their quality of life was tested with a sample of residents on Jeju, South Korea, the results may not be generalizable to other populations and the strength of the relationships between the constructs may show some variation. Thus, replications of this study in different countries should be conducted in other countries in order to validate and confirm the relationships structured in this study.

Another limitation of this study is that the selection of observed variables and constructs may be constrained. Even though the variables used in this study were developed based on the comprehensive literature review, experts' opinions, and researchers' observations, other important variables and constructs could exist and help to identify further insights of senior tourist behavior and quality of life. Refinement of the measurement scale may be needed for further research. In addition, this study only examined seniors' leisure activity patterns as the moderating variable in explaining the relationship between travel motivation, satisfaction with life domains, and overall quality of life. Future study needs to consider other possible moderating variables that could be added into this research model.

The study used cross-sectional data to examine the behavior of retired senior citizens who are over aged 65. However, there might be some variation between different age bracket in terms of cognitive and affective response changes depending on the experience context of setting. For example, Ferring and Filipp (1995) found that longitudinal declines in intensity of positive affect over a year in a sample of seniors. Some leisure studies considered subgroups for a heterogeneous senior market (e.g., Baron 2008). For future study, it will be interesting to

investigate the longitudinal data of seniors and examine their changes and differences in travel behaviors and quality of life.

Moreover, in reflection of the location of the study, it appears that the respondents are highly educated. The highly educated are more likely to be aware of socially acceptable behavior and have a tendency to offer responses (Karp & Brockington 2005). Thus, future research is needed in order to provide control for the education level.

Lastly, more recent studies have argued that there are large differences between self-perceived age and chronological age (e.g., Faranda & Schmidt, 2000). Thus, researchers have argued that self-perceived age would be a better way of analyzing and predicting the behavior of the senior market (Faranda & Schmidt, 2000; Sellick, 2004). Psychological changes primarily consist of cognitive changes, which involve changes in attitudes, personality, and needs. The social aspect of this type of aging concerns changes in a person's position in society (Moschis, 1994), and is best exemplified by the acquisition of roles associated with senior citizenship (Schewe & Balazs, 1992). Since this study used the biological age of 65 to define the senior citizens, a future study may consider seniors' perceived age.

5.6 CONCLUSIONS

This study developed and tested a theoretical model that targeted retired senior tourists who are aged over 65 and examined the influence of personal values, travel constraints, and travel motivation on satisfaction with life domains and overall quality of life.

The findings revealed that the seniors' personal values have a significant influence on travel motivation while travel constraints did have a negative effect on their travel motivation. The findings of this study also showed positive relationships between travel motivation and

satisfaction with life domains (family, social, emotional, leisure, and health). In addition, the study found that overall quality of life is determined by satisfaction with life domains (family, social, emotional, leisure, and health). In addition, the study found that the relationship between satisfaction with life domains (family, social, emotional, leisure, and health) and overall quality of life was moderated by the leisure activity patterns.

Among the significant implications of this study are the establishment of a theoretical foundation for examination of senior travelers' behavior related to their quality of life; the importance of examining the relationship between seniors' personal values, travel constraints, travel motivation, satisfaction of life domains, and overall quality of life; and the recognition of the roles of perspective of different leisure activity pattern.

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Appendix A: Final questionnaire

Dear Participant,

Thank you for your participation in this study.

The purpose of the research is to examine how tourism experiences affect your quality of life.

Your survey response and the results of this study will be used for academic-research purposes only.

Your participation in this study is entirely voluntary. You are encouraged to answer all questions, as omitted responses may render your survey unusable for this study. Please know that your responses will be treated confidentially and anonymously. The study should take about 10-13 minutes to complete.

Please read all instructions and questions carefully. There is no right or wrong answers, so please try to answer as openly and honestly as possible. If you have any questions about the study, feel free to contact the lead researcher Lina Kim at linakim@vt.edu

Again, thank you for your time and participation!

Sincerely,

Lina Kim, Ph.D Candidate
Hospitality and Tourism Management
Virginia Tech

Muzzo Uysal, Ph.D.
Hospitality and Tourism Management
Virginia Tech

Screening Questions:

1. I am 65 years of age or older:
[ ] Yes
[ ] No

2. I have been retired
[ ] Yes
[ ] No

3. In the past years I have taken a pleasure trip that was 3 or more nights away from home:
[ ] Yes
[ ] No

Part 1: General Travel Behavior

1. In general, how many travel do you take in a year? _____times

2. On average, how many nights do you usually spend on a travel? _____ nights

3. Who did you travel with on your most recent travel? (please circle one)
    a. Alone
    b. Spouse/partner
    c. Family members/Relatives
    d. Friends
    e. Organized group
    f. Business associates/colleagues
    g. Significant of other
    h. Other_____

4. Do you prefer to travel with all inclusive packages?

    a. Yes b. No

5. How do you perceive your current health condition, from being not good to being excellent? Please indicates one that best describe you?

Not at good					Excellent
☐	☐	☐	☐	☐	☐

6. How do you feel or perceive your age?
   a. I feel that I am older than my chronicle age
   b. I feel that I am younger than my chronicle age
   c. I feel that I am old as my age

7. Given your answers to 6, how old do you feel your age? _____

8. Please indicate the number of travel activities you are currently participating and also list the activities

   Number of activities _____

   List the activities _____ _____

   _____ _____ _____

9. Please indicate the number of travel activities you are you participated in prior to retirement and also list the activities

   Number of activities _____

   List the activities _____ _____

   _____ _____ _____

10. After the retirement, does your travel activity increase?
    a. Yes, increases
    b. No, decreases
    c. No changes

Travel Motivation

Thinking about your **pleasure travel**, please rate the item that best describes **how important that reason** was to you while planning your trip.

	Not important at all	Unimportant	Neutral	Important	Very Important
Resting and relaxing	☐	☐	☐	☐	☐
Spending time with immediate family and relatives	☐	☐	☐	☐	☐
Meeting new people and socializing while travelling	☐	☐	☐	☐	☐
Visiting friends and relatives who live in other cities	☐	☐	☐	☐	☐
Engaging in physical activities	☐	☐	☐	☐	☐
Having opportunities for doing sports	☐	☐	☐	☐	☐
Improving health/physical fitness	☐	☐	☐	☐	☐
Learning new things	☐	☐	☐	☐	☐
Seeking intellectual enrichment	☐	☐	☐	☐	☐
Seeking spiritual enrichment	☐	☐	☐	☐	☐
Experiencing different cultures and ways of life	☐	☐	☐	☐	☐
Seeing how other people live	☐	☐	☐	☐	☐
Seeing the things that I don’t normally see	☐	☐	☐	☐	☐
Visiting places I have always wanted to go	☐	☐	☐	☐	☐
Feeling a sense of self-fulfillment	☐	☐	☐	☐	☐
Nostalgic reminiscence	☐	☐	☐	☐	☐
Outstanding scenery	☐	☐	☐	☐	☐
Historical cities	☐	☐	☐	☐	☐
Facilities for physical activities	☐	☐	☐	☐	☐
Walking paths or other place to walk for exercise	☐	☐	☐	☐	☐
Shopping facility	☐	☐	☐	☐	☐
Special event and attraction	☐	☐	☐	☐	☐
Natural scenery and landscape	☐	☐	☐	☐	☐
Reliable weather	☐	☐	☐	☐	☐
Safety and security	☐	☐	☐	☐	☐
A variety of things to do and places to go	☐	☐	☐	☐	☐
Suitable accommodations	☐	☐	☐	☐	☐

Travel Constraints

Thinking about your **pleasure travel**, please indicate how much you agree or disagree with following **travel constraints** items in deciding your trip.

	Strongly disagree	disagree	Neutral	agree	Strongly agree
I have no information about the place to visit	☐	☐	☐	☐	☐
I have had difficulty getting information	☐	☐	☐	☐	☐
The trip requires me to do too much planning	☐	☐	☐	☐	☐
I cannot afford to spend money on travel	☐	☐	☐	☐	☐
I have no time to take a trip	☐	☐	☐	☐	☐
I have more important thing to do than travel	☐	☐	☐	☐	☐
Travelling would interrupt my normal life	☐	☐	☐	☐	☐
I don’t have either the clothing or luggage for travel	☐	☐	☐	☐	☐
My spouse dislike travel	☐	☐	☐	☐	☐
I would feel guilty about travelling	☐	☐	☐	☐	☐
Concern for family doesn’t allow me travel	☐	☐	☐	☐	☐
I fear of leaving home unattended	☐	☐	☐	☐	☐
I don’t’ have companion to travel with	☐	☐	☐	☐	☐
My family and friends are not interested in travelling	☐	☐	☐	☐	☐
I don’t have the energy to travel	☐	☐	☐	☐	☐
My health prevent me from travelling	☐	☐	☐	☐	☐
I have dietary consideration that limits my travel	☐	☐	☐	☐	☐
I fear of travel on certain forms of transportation	☐	☐	☐	☐	☐
I am too old to travel	☐	☐	☐	☐	☐
I have a disability which makes travel difficult	☐	☐	☐	☐	☐

Personal values

The following questions are on your **personal values**. Please indicate at the appropriate box to rate the importance of following values.

	Not at all important	Unimportant	Neutral	Important	Very Important
Self-fulfillment	☐	☐	☐	☐	☐
Self-respect	☐	☐	☐	☐	☐
Sense of accomplishment	☐	☐	☐	☐	☐
Excitement	☐	☐	☐	☐	☐
Sense of security	☐	☐	☐	☐	☐
Sense of belonging	☐	☐	☐	☐	☐
Being well respected	☐	☐	☐	☐	☐
Fun and enjoyment in life	☐	☐	☐	☐	☐
Warm relationship	☐	☐	☐	☐	☐

Satisfaction with life domains

Overall, **how satisfied** were you with your life domain **after your travel**?

	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
Family life					
I am satisfied with my family relationship in general	☐	☐	☐	☐	☐
I am satisfied with family's happiness I am satisfied	☐	☐	☐	☐	☐
I am satisfied with relationship with relatives	☐	☐	☐	☐	☐
I am satisfied with my relationship with my spouse (family members)	☐	☐	☐	☐	☐
Social life					
I am satisfied with my friend relationship in general	☐	☐	☐	☐	☐
I am satisfied with the things I do with other people	☐	☐	☐	☐	☐
I am stratified with interaction with others	☐	☐	☐	☐	☐
Health life					
I am satisfied with my health in general.	☐	☐	☐	☐	☐
I am satisfied with physical well-being	☐	☐	☐	☐	☐
I am satisfied with physical fitness	☐	☐	☐	☐	☐
Emotional life					
I am satisfied with achieving self-fulfillment	☐	☐	☐	☐	☐
I am satisfied with achieving emotional health	☐	☐	☐	☐	☐
I am satisfied with achieving personal goals and hopes.	☐	☐	☐	☐	☐
Leisure life					
I am satisfied with my leisure life.	☐	☐	☐	☐	☐
I am satisfied with my leisure time.	☐	☐	☐	☐	☐
I am satisfied with spare time activities.	☐	☐	☐	☐	☐

Overall Quality of Life

Overall, how **satisfied** were you with **your overall life after your travel**?

	Very unsatisfied	Unsatisfied	Neutral	Satisfied	Very satisfied
The conditions of my life are excellent and I am satisfied with my life.	☐	☐	☐	☐	☐
My satisfaction with life in general was increase shortly after trip	☐	☐	☐	☐	☐
Overall, I felt happy upon my return from trip	☐	☐	☐	☐	☐
Although I have my ups and downs, in general, I feel good about my life	☐	☐	☐	☐	☐
Overall, my experience with my life are memorable and have enriched my quality of life	☐	☐	☐	☐	☐
After trip I felt that I lead a meaningful and fulfilling life	☐	☐	☐	☐	☐

Demographic Information

1. Your residency_____ or City_____

2. What is your age? _____

3. What is your gender?
    a. Male
    b. Female

4. What was the last year of school you completed?
    a. High school or less
    b. Some college/ Associate degree
    c. College degree (bachelor)
    d. Post graduate degree (master)
    e. Post graduate degree (doctoral)

5. How long have you been retired?
   _____ year(s) _____month(s)
   (If less than a year, you could write in the month)

6. What is your income source?
   a. Pension
   b. Own saving
   c. Children' donation
   d. Relatives or friend's donation
   e. Social benefit
   f. Others _____

7. Please indicate you marital status?
   a. Single
   b. Widow/ divorced
   c. Marred

8. Who do you live with?
   a. Alone
   b. With spouse
   c. With family members
   d. Others _____

Appendix B: Individual items of the constructs with mean scores and standard deviation

1 .Travel motivation

	Mean	SD	Skew.	Kurt.
Resting and relaxing	3.49	.742	-.795	.636
Enjoying life	3.78	.720	-.638	1.38
Spending time with immediate family and relatives	3.38	.852	-.797	.176
Meeting new people and socializing while travelling	3.32	.904	-.327	-.374
Spending time with a group of good friends	3.52	.816	-.636	.229
Visiting friends and relatives who live in other cities	*3.13*	.965	-.197	-.668
Engaging in physical activities	*3.23*	.903	-.331	-.194
Having opportunities for doing sports	3.13	.958	-.082	-.328
Improving health/physical fitness	3.24	.928	-.236	-.162
Seeking intellectual enrichment	3.14	.841	-.177	.114
Seeking spiritual enrichment	3.18	.845	-.193	.182
Feeling a sense of self-fulfillment	3.30	.845	-.290	-.412
Nostalgic reminiscence	3.27	.937	.445	3.454
Visiting places I have always wanted to go	3.55	.866	-.785	.984
Experiencing different cultures and ways of life	3.58	.871	-.693	.864
Seeing how other people live	*3.48*	.860	-601	.669
Seeing the things that I don’t normally see	*3.55*	.866	-.785	.984
Visiting new places and see new things	3.57	.861	-.946	1.274

2. Travel constraints

	Mean	SD	Skew.	Kurt.
I have no information about the place to visit	2.62	.931	.554	-.496
I have had difficulty getting information	2.66	.904	.521	-.756
The trip requires me to do too much planning	2.52	.874	.800	.019
I cannot afford to spend money on travel	2.55	.877	.640	-.198
My spouse dislike travel	3.06	.807	-.041	-.417
I fear of leaving home unattended	3.02	.879	.094	-.785
I don't' have companion to travel with	2.98	.888	.048	-.772
My family and friends are not interested in travelling	2.99	.858	.105	-.747
I don't have the energy to travel	2.52	.885	.393	-.375
I have dietary consideration that limits my travel	2.66	.948	1.149	1.284
I fear of travel on certain forms of transportation	2.77	.948	1.078	-.087

3. Personal value

	Mean	SD	Skew.	Kurt.
Self-fulfilment	3.55	.747	-.528	.397
Self-respect	3.29	.782	-.227	.127
Sense of accomplishment	3.35	.733	-.025	-.342
Excitement	3.33	.766	.286	-.191
Fun and enjoyment in life	3.67	.783	-.356	.282
Sense of security	*3.07*	.808	-.277	-.619
Sense of belonging	*3.07*	.833	-.055	-.701
Warm relationship	3.22	.850	-.439	-.518

4. Satisfaction with health life domain

	Mean	SD	Skew.	Kurt.
I am satisfied with my health in general.	3.76	.602	-.600	.793
I am satisfied with physical well-being	3.85	.577	-.562	1.27
I am satisfied with physical fitness	3.77	.635	-.635	.604

5. Satisfaction with family life domain

	Mean	SD	Skew.	Kurt.
I am satisfied with my family relationship in general	3.51	.708	-.422	.381
I am satisfied with family's happiness I am satisfied	3.69	.783	-324	.252
I am satisfied with relationship with relatives	3.53	.729	-.594	.898
I am satisfied with my relationship with my spouse	3.34	.727	-.325	.154

6. Satisfaction with leisure life domain

	Mean	SD	Skew.	Kurt.
I am satisfied with my friend relationship in general	3.48	.752	-.192	-.017
I am satisfied with the things I do with other people	3.47	.746	-.351	.123
I am stratified with interaction with others	3.52	.774	-.519	.721

7. Satisfaction with social life domain

	Mean	SD	Skew.	Kurt.
I am satisfied with my friend relationship in general	3.58	.746	-.830	.998
I am satisfied with the things I do with other people	3.52	.750	-.533	.216
I am stratified with interaction with others	3.55	.740	-.703	.645

8 Satisfaction with emotional life domain

	Mean	SD	Skew.	Kurt.
I am satisfied with my friend relationship in general	3.69	.764	-.313	.291
I am satisfied with the things I do with other people	3.58	.839	.493	1.13
I am stratified with interaction with others	3.61	.821	.572	1.41

9. Overall quality of life

	Mean	SD	Skew.	Kurt.
Overall, I felt happy upon my return from that trip	3.60	.705	-.309	.531
Overall, I felt happy upon my return from trip	3.61	.696	-.087	-.162
My satisfaction with life in general was increases shortly after trip	3.58	.704	-.575	.935
Although I have my ups and downs, in general, I felt good about my life	3.56	.661	-.258	.276
Overall, my experience with my life are memorable and have enriched my quality of life	3.64	.648	-.172	-.073
After trip I felt that I lead a meaningful and fulfilling life	3.32	.723	-.517	1.160

Appendix C: VT IRB Approval Letters

VirginiaTech

Office of Research Compliance
Institutional Review Board
North End Center, Suite 4120, Virginia Tech
300 Turner Street NW
Blacksburg, Virginia 24061
540/231-4606 Fax 540/231-0959
email irb@vt.edu
website http://www.irb.vt.edu

MEMORANDUM

DATE:	January 23, 2015
TO:	Muzaffer Uysal, Hye Lin Kim
FROM:	Virginia Tech Institutional Review Board (FWA00000572, expires April 25, 2018)
PROTOCOL TITLE:	The effects of personal values and travel motivation of senior travelers on their Quality of Life (QoL)
IRB NUMBER:	**15-062**

Effective January 23, 2015, the Virginia Tech Institution Review Board (IRB) Chair, David M Moore, approved the New Application request for the above-mentioned research protocol.

This approval provides permission to begin the human subject activities outlined in the IRB-approved protocol and supporting documents.

Plans to deviate from the approved protocol and/or supporting documents must be submitted to the IRB as an amendment request and approved by the IRB prior to the implementation of any changes, regardless of how minor, except where necessary to eliminate apparent immediate hazards to the subjects. Report within 5 business days to the IRB any injuries or other unanticipated or adverse events involving risks or harms to human research subjects or others.

All investigators (listed above) are required to comply with the researcher requirements outlined at:

http://www.irb.vt.edu/pages/responsibilities.htm

(Please review responsibilities before the commencement of your research.)

PROTOCOL INFORMATION:

Approved As:	**Exempt, under 45 CFR 46.110 category(ies) 2**
Protocol Approval Date:	**January 23, 2015**
Protocol Expiration Date:	**N/A**
Continuing Review Due Date*:	**N/A**

*Date a Continuing Review application is due to the IRB office if human subject activities covered under this protocol, including data analysis, are to continue beyond the Protocol Expiration Date.

FEDERALLY FUNDED RESEARCH REQUIREMENTS:

Per federal regulations, 45 CFR 46.103(f), the IRB is required to compare all federally funded grant proposals/work statements to the IRB protocol(s) which cover the human research activities included in the proposal / work statement before funds are released. Note that this requirement does not apply to Exempt and Interim IRB protocols, or grants for which VT is not the primary awardee.

The table on the following page indicates whether grant proposals are related to this IRB protocol, and which of the listed proposals, if any, have been compared to this IRB protocol, if required.