AN EXAMINATION OF THE MEDICAL TOURISTS MOTIVATIONAL BEHAVIOR AND PERCEPTION: A STRUCTURAL MODEL

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CHAPTER I

INTRODUCTION

According to World Bank assessments, currently, tourism is the largest and most extensively developing world industry. The number of tourists in 2006 was 842 million and is expected to reach 1.6 billion in the year 2020. The share of tourism and travel industry comprises 11% of the global export of commodities and services. Regarding the purpose of travel, 50% international tourists go to foreign countries for holidays, 25% go to visit friends and relatives, for medical treatment and for religious purposes, and 16% go on business trips (Travel Exhibitions, 2007).

Medical and healthcare tourism are currently major growth segments in global tourism (Tourism Research and Marketing, 2006). At the international level, health tourism is an industry sustained by 617 million individuals with an annual growth of 3.9% (Carrera & Bridges, 2006). More specifically, Tourism Research and Marketing estimated that the current size of the global medical tourism market is about 19 million trips a year or about 2.5% of all international tourism and is expected to increase to almost 40 million trips within the next 5 years, or around 4% of forecast world tourism trips a year or about 2.5% of all international tourism and is expected to increase to

almost 40 million trips within the next 5 years, or around 4% of forecast world tourism arrivals (Tourism Research and Marketing, 2006). In 2003, approximately 350,000 patients from industrialized nations traveled to a variety of less developed countries for health care (Matto & Rathindran, 2006). As the number of U.S. citizens travelling abroad for medical services has been doubling each year since 2003, its expansion projected to continue to potentially over 23 million by 2017 (Keckley, 2008), while world tourism in general is predicted to contract by 7.9% in 2009 due to worldwide economic circumstances (Meyer, 2009). Deloitte issued a revised projection in fall 2009, projecting more modest growth: however, increased outbound U.S. travelers by 35% per year are still pro projected through 2012 (Keckley, 2009).

Overview and Significant of Medical Tourism

Chanda (2002) identified four modes of global trade in health services (1) cross-border delivery of trade, (2) consumption of health services abroad, (3) commercial presence, and (4) movement of health personnel. Mode 2, the consumption of health services abroad, particularly refers to the movement of consumers to the country providing diagnosis and treatment services. This mode signifies the beginning of contemporary medical tourism. Medical tourism is an economic activity that entails trade in services and represents the splicing of at least two sectors: medicine and tourism (Bookman & Bookman, 2007). The term “medical tourism” can be broadly defined as patients travelling to other countries with the collaboration purpose of obtaining medical, dental, surgical or other forms of specialization treatment and tourism (El Taguri, 2007; Hutchison, 2005; Ramirez de Arellan, 2007).

Ramirez de Arellano (2007) stated that traditionally, the affluent patients from other countries travel to the United States or other developed countries, seeking for superior specialized medical treatment due to the technological development and advancement of the available medical and pharmaceutical industry. However, globalization has caused many countries to reevaluate their economical strengths and weaknesses, as well as reassess what products or services from nations can benefit them (Morrison, 2005). While medical tourism is presently minor in comparison to the overall service trade or the consumption of medical services worldwide or even the trade in tourism services, it cannot be dismissed as either temporary or significant (Bookman & Bookman, 2007).

As early as 1989, the Organization for Economic Cooperation and Development (OECD) report noted that trade in health services provided developing countries with a competitive opportunity in this arena, given their abundance of labor and availability of capital and skills in medicine (OECD, 1989). As long as they can maintain quality levels, developing countries might be able to generate significant growth (Bookman & Bookman, 2007). In 1997, the United Nations Conference on Trade and Development (UNCTAD), which monitors trade between countries, noted for the first time that trade in services, including health services, could be beneficial for developing countries (Vega, 1998). Consequently, several developing countries have started to position their countries as a medical tourism destination.

Numerous nations have significantly benefited from medical tourism. Countries that actively promote medical tourism do so for self-serving reasons. Investing in the medical industry is a way to increase the gross domestic product, upgrade services, generate foreign exchange and create a more favorable balance-of-trade situation, and boost tourism. Other

more subtle benefits include stemming a brain drain of health professionals and buying international good view (Ramirez de Arellano, 2007). Global medical tourism has already affected the economics of India, Poland, Cuba, Costa Rica, Mexico, Yemen, Thailand, and South Africa where medical procedures cost a fraction of what they would cost in the United States or Europe (Nolan & Schneider, nd.). Evidently, medical tourism has contributed approximately $25 million per year to Cuba's economy. In 2002, Thailand treated more than 600,000 medical tourists that contributed approximately $503 million to the country's revenue. India has seen a 27 percent increase in tourists while medical tourism, itself, has demonstrated a 20 percent growth. Additionally, India has attracted 150,000 medical tourists in 2003. By 2012, medical tourism is expected to bring an additional $1.1 – 2.2 billion in India's annual revenue (Morrison, 2005).

Factors that stimulated the growth and popularity of medical tourism include; high cost of health care in their home country, long waiting times for procedures or the considerable time to receive non-urgent medical care, improvements in technology and standard of health care in other countries, large and growing number of people without health insurance, ease and affordability of international travel, and change in demographic and lifestyle (Garcia-Altes, 2005; National Coalition on Health Care, 2004; Newman, 2006; Tourism Research and Marketing, 2006). Due to the preceding reasons, medical tourists started to flow in an opposite direction from industrialized countries to developing countries. It is projected that 750,000 Americans went offshore for medical care in 2007, with this number increasing to six million in 2010 (Horowitz & Rosenweig, 2007).

The growing market of health care services has also attracted providers and patients, with some border towns specializing in certain types of services and drawing from a broad

catchment area (Ramirez de Arellano, 2007). A recent article in Times magazine describes the towns of Nuevo Progresso and Los Algodones in Northern Mexico as “dental oases” attracting chartered flights full of patients from Minnesota and California in search for more affordable dental care (Kher, 2006). The market drivers for medical tourism are cost savings, comparable or better quality care, and shorter waiting periods, thus quicker access to health the care (Keckley, 2008). A study by Turner (2008) identified factors driven “Dental Tourism” including the high price of local care, delays in obtaining services from local dentists, better skill of international dentist, low price of travel, and connection of patient and international services via the internet. Some countries such as India, Brazil, the Philippines, and Thailand, are actively capitalizing on the trend, offering health care/resort packages that promise the best medicine with the attraction of tourism-all for a fraction of what equivalent health services would cost in the United States (Ramirez de Arellano, 2007).

According to U.S. Census data, an estimated 46 million Americans do not have health insurance. An estimated 250 million may have policies that do not cover the cost of certain medical procedures. Other procedures are often only partially covered, leaving the patient responsible for out-of-pocket co-payments that sometimes exceed the total cost of the same operation in another country (Newman, 2006). As a result, a growing number of Americans are traveling to countries like Thailand, Costa Rica and Malaysia for cosmetic, orthopedic, coronary and other medical and dental treatments that cost 20 to 80 percent less than at home (Alsever, 2006). The estimated expense saving of a specific surgery in international medical destinations can range from US$ 35,400 to as much as US$ 53,900.

For example, Figure1.1 presents the comparison of specific surgical expenses of four advanced hospitals in developing countries (India, Mexico, and Thailand) and a U.S. hospital with an either Joint Commission International accreditation and/or ISO quality certification.

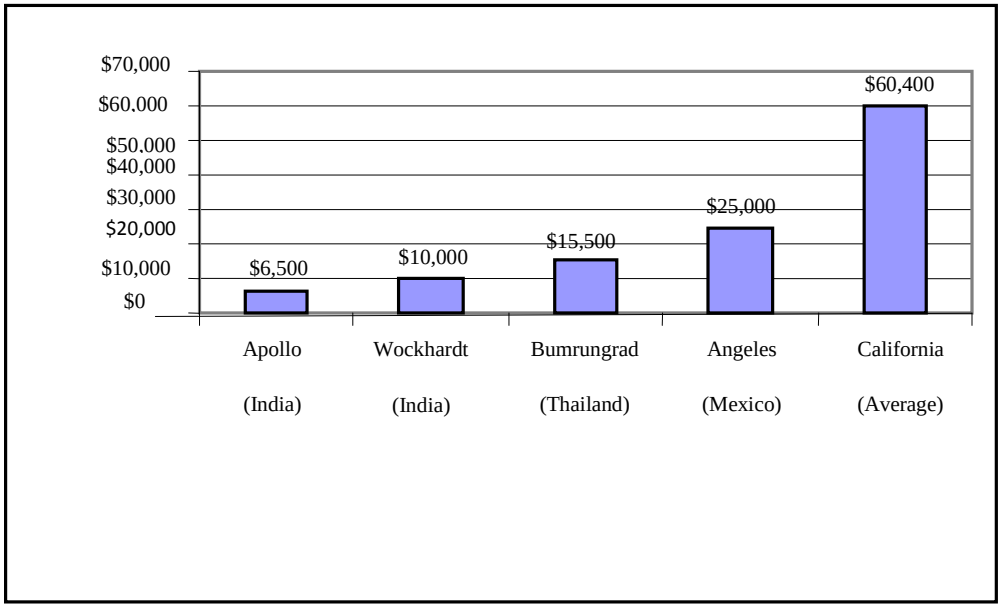


Figure 1.1: Comparison of Average Expected Facility
(Hospital-Reported Combined Average Expected Facility and Professional Fees in 2005 for Elective Coronary Artery Bypass Graft Surgery)

Source: Hearing before the Special Committee on Aging United States Senate One Hundred Ninth Congress, Second Session, 2006

The following tables, Table1.1 and 1.2 provide details of the price comparison on specific medical and dental treatment in the U.S. and other international medical treatment destinations of Asia, Mexico, South America, and South Africa. Notice that in the U.S., even patients with insurance pay lower amount of medical expenses than patients without insurance. However, the insurer price in the U.S. still pays a significantly higher medical expense when compared to medical and dental treatment in other destinations. The

significant amount of cost saving has boosted demand for medical service in developing countries. Three primary reasons for the large cost differential are 1) lower labor costs; 2) no malpractice costs; and 3) lower pharmaceutical costs (Forgione & Smith, 2007).

Table 1.1: Comparing Medical Treatment Pricing in Selected Countries

Procedures	**US Retail Price**	**US Insurer Price**	**India**	**Thailand**	**Singapore**
Angioplasty	57,262 – 82,711	25,704 – 37,128	11,000	13,000	13,000
Gastric bypass	47,988 – 69,316	27,717 – 40,035	11,000	15,000	15,000
Heart bypass	122,535 – 176,835	54,741 – 79,071	10,000	12,000	12,000
Heart-valve replacement (Single)	159,326 – 230,138	71,401 – 103,136	9,500	10,500	13,000
Hip replacement	43,780 - 63238	18,281 – 26,407	9,000	12,000	12,000
Knee Replacement	40,640 – 58,702	17,627 – 25,462	8,500	10,000	13,000
Mastectomy	23,709 – 34,246	9,774 – 14,118	7,500	9,000	12,400
Spinal fusion	62,778 – 90,679	25,302 - 36,547	5,500	7,000	9,000

Source: Kher, Unmesh (2006). Out Sourcing Your Heart, *Time* Vol 167, (22).

Table 1.2: Comparing Dental Treatment Pricing in Selected Countries

Procedure	**USA**	**Mexico**	**Costa Rica**	**South Africa**	**Thailand**
Implants	$ 2,400	$ 1,500	$ 1650	$ 2,000	$ 1,600
Crowns	$ 800	$ 375	$ 400	$ 800	$ 270
Porcelain Veneers	$ 800	$ 120	$ 160	$ 300	$ 240
Denture (Upper & Lower)	$ 1,600	$ 1,000	$ 1,100	$ 1,700	$ 900
Inlays & Onlays	$ 420	$ 220	$ 240	$ 320	$ 300
Surgical Extractions	$ 260	$ 120	$ 120	$ 250	$ 120
Root Canals	$ 750	$ 260	$ 280	$ 400	$ 110

Source: Josef Woodman(2007). *Patients Beyond Borders*, Chapel Hill, NC: Health Travel Media, pp. 8.

In order to attain quality standards of the U.S. hospitals, a facility in a developing country often relies on accreditation standards. Accreditation of hospitals should be a vital factor when evaluating the quality of care issue. The Joint Commission (JC) (formerly, the Joint Commission on Accreditation for Healthcare Organizations: JCAHO) is the premier standards-setting and accreditation body in health care within the United States. In order to address the needs of the international community, the JC established the Joint Commission International (JCI). The JCI has accredited over 120 hospitals and healthcare facilities in

Europe, Asia, India, Middle East, South America, and the Caribbean (Forgione & Smith, 2007; Joint Commission, 2009; Joint Commission International; 2009).

In spite of the fact that the medical services in developing countries charge less than in the U.S., major medical tourism destinations have offered medical standard equivalent to U.S. medical services. As identified in Table 1.3, some hospitals in India, Mexico, and Thailand have been accredited by the International Organization of Standardization and Joint Commission International. Additionally, physicians and medical staff have obtained medical training and achieved international standard medical board certifications.

Table 1.3: Hospital-Reported Status on Familiar Quality Standards for Elective Coronary Artery Bypass Graft (CABG) Surgery

Meet Standards for Hospitals and Surgeons				
Hospital	*Country*	*City*	*Quality Credentials - Hospitals*	*Quality Credentials – Cardiac Surgeons*
Apollo	India	Chennai	JCI accredited; and ISO 9000 and ISO 9002 certified	Fellowships at Cleveland Clinic, Univ. Wisconsin – Milwaukee & Brigham and Women's Hospital; CABG mortality rate <1%
Bumrungrad	Thailand	Bangkok	JCI accredited	Half of cardiac surgeons are U.S. board certified
Wookhardt	India	Mumbai	JCI accredited	Residency/fellowships at Harvard and Lahey Clinic; CABG mortality rate <1%
Meet Standards for Hospitals or Surgeons				
Hospital	*Country*	*City*	*Quality Credentials – Hospitals*	*Quality Credentials – Cardiac Surgeons*
Angeles	Mexico	Mexico City	ISO 9000 certified	Cardiac surgeons board certified in Mexico
California High Volume Hospital Average				
Hospital	*Country*	*City*	*Quality Credentials – Hospitals*	*Quality Credentials – Cardiac Surgeons*
Multiple	U.S.	Multiple Calif. City	All JACHO accredited. None are ISO certified	Most high volume CABG surgeons are U.S. board certified

Note: JCI is Joint Commission International, an affiliate of the Joint Commission on Accreditation of Health Organizations (JCAHO). ISO is International Organization of Standardization. Source: Hearing before the Special Committee on Aging United States Senate One Hundred Ninth Congress, Second Session, 2006

Background of the Problem

Medical and healthcare tourism are an expanding segment in global tourism and present an opportunity for hospitals to increase growth by capturing the international patient market (Teh & Chu, 2005; Tourism Research and Marketing, 2006). This tourism segment has also been viewed as an alternative to patients who cannot afford the medical treatment in their home country. It is an alternate opportunities to combine medical and travel opportunities together.

Literature has reported that the demand for lower cost health care services is driving patients from developed countries to seek medical treatment on a globally competitive basis. Especially in the United States, the health care system is facing the situation of unprecedented increases in expenditures in conjunction with providing care to an estimated 47 million who have no health insurance and 120 million who are underinsured. Therefore these patients together with insurers and employers are looking for opportunities for international outsourcing of medical care to decrease their expenses (Bies & Zacharia, 2007; Forgione & Smith, 2007; Rogers, 2008).

Previous studies in the field of medical tourism have primarily focused on an overall effect on the health care industry or macro perspective of medical tourism. For instance, Bies and Zacharia (2007) applied the mathematical model to determine whether medical tourism should be encouraged to U.S. companies for the alternative of medical benefit. A number of articles also focused on the affect of medical tourism on medical and healthcare systems (Burkett, 2007; Forgione & Smith, 2007; Horowitz & Rosensweig, 2007; United States Congress Senate Special Committee on Aging, 2006). Additionally, several researchers have concentrated on the suppliers' or medical service providers' side by identifying and

analyzing the strengths, weaknesses, opportunities and threats (SWOT) of specific locations as medical tourist destinations (Bernal, 2007; Caballero-Danell & Mugomba, 2006; Diaz-Briqutes, 2001; Tourism Research and Marketing, 2006). In order to create or sustain competitive advantage, health care providers are compelled to integrate the traditional medical approach, which stress the effectiveness and efficacy of health service outcomes from the providers' perspective, with a patient-centered principle, which takes into account patients' concerns and interest (Ettinger, 1998).

Since medical tourism is an income generator that has significant contribution to the revenue of developing countries, which position their countries as a medical tourism hub, it is important to have an in-depth study on the behavior of medical tourists. The literature regard to medical tourism has primarily concerns on the service providers or the supplier aspect. As in the tourism and hospitality industry, the customer is one of the key elements in measuring success of a business operation. Therefore, to extensively obtain the information focusing on medical tourism, it is essential to incorporate a body of knowledge both in a small and large scale perspective.

Although, literature in the hospitality field has extensively examined the subject of tourist motivation factors and behaviors, very few researchers have examined customers in this emerging industry. In addition, limited research has examined the customer perspective on medical tourism in terms of motivational factors and the decision making process. Consequently, there is a lack of a theoretical model to describe medical tourist behavior. For the preceding reasons, this study aims to extend medical tourism research and fill research gap by focusing on the customer aspect in effort to study the motivational factors and how customers make a decision to engage in medical tourism.

Purpose and Objective of the Study

The purpose of this study is twofold. They are: 1) to develop a theoretical structural model of medical tourists' motivational behavior and perception; and 2) to empirical test the conceptual model of relationships among the construct by using international tourists traveling to Thailand for medical purposes. Specifically, the study is expected to achieve the following objectives:

1) To examine the structural relationship of medical tourists motivational behavior and perception model.
2) To assess the moderating effect of international medical tourists' repeat visit on relationship between motivation and perceived destination image, perceived quality and perceived value, perceived quality and overall satisfaction.
3) To examine the relationship between international medical tourists' demographic profiles on motivation factors, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more.
4) To recommend medical tourism strategies to Thailand in order to facilitate the medical tourist expectations and strengthen the services for future competition.

Significance of the Study

The researcher believes that the outcome of this study will contribute to the advancement of medical tourism industry in terms of theoretical and practical knowledge.

Theoretical Contribution

Based on the review of previous literature, there is fairly limited study about the motivation influencing medical tourists, perception and behavior towards medical tourism destinations. This study is expected to make major contributions to the existing theory. Number of literatures have investigated and established the tourist push and pull motivation to travel (Crompton, 1979; Hanquin & Lam, 1999; Kim, Lee, & Klenosky, 2003). The push factors related to internal intangible motivation of individual to travel whereas the pull factors are the external attributes of destination that attract individuals to travel. Also, previous researchers in hospitality marketing field, Kotler, Bowen, and Makens (1996) have established the theoretical model of image, quality, satisfaction, and post purchase behavior. The study aimed to integrate motivation factor and model of image, quality, satisfaction, and post purchase behavior to establish a structural model for medical tourism. The model hopes to explain medical tourists' motivation behaviors and perceptions applicable to medical tourism.

In tourism context, previous researches revealed that frequent visit has a positive direction on perceptions of destination (Hu & Richie, 1993; Milman & Pizam, 1995). Since this study is specifically focused on the specific group of tourists who might be motivated to travel by the necessity for medical treatment, thus it is different in the nature of general tourists. For medical tourists, frequent visit might play a moderator role instead of direct

influence on perceived destination image; perceived quality and perceived value; and perceived value and overall satisfaction. Thus, another theoretical contribution of this study is the test of whether the relationship between the constructsvaries depending on medical tourist frequent visit (first time vs. repeat).

The findings of the study will enhance the motivation, perception and behavior theory applicable to medical tourism literature and apply it to the interdisciplinary field of research.

Practical Contribution

In terms of practical contribution, the results of the study are expected to offer a better understanding of the decision making process and motivational factors influencing international medical tourists in the selection of medical destinations. The results would also assist the medical service providers in any destination to improve their knowledge and understanding of the international medical tourists as well as to gain insight into their expectations and experiences. Understanding the process of customer decision making and how it can be applied to medical tourism, in particular, will help entrepreneurs develop and enhance marketing effort for their services to intensify customer satisfaction.

Further, the results of the study would also provide information to benefit the government of the medical tourism destinations for policy development of medical tourism for the country. This study will add to the existing medical tourism literature by providing and developing a better understanding of customers specific to the medical tourism industry.

Definition of Terms

Medical Tourists - persons who travel from a normal place of residence to a destination at which medical or surgical treatment is provided or performed, and which involves more than one night away from the country of residence (Tourism Research and Marketing, 2006)**.** This study included medical tourists seeking treatment for illness and enhancement.

Medical Tourism – It is the act of travelling to other countries to obtain medical, dental, and surgical care. It includes medical services (inclusive of elective procedure and complex specialized surgeries) like knee/hip replacement, heart surgery, dental procedures and different cosmetic surgeries (Youngman, 2007).

Push Factors – originated from intangible or intrinsic desires of human beings, including the desire for escape, novelty seeking, adventure seeking, dream fulfillment, self exploration, rest and relaxation, health and fitness, prestige, and socialization (Chon, 1989; Lam & Hsu, 2006; Uysal & Jurowski, 1994; Yuan & Mcdonald, 1990).

Pull Factors – refers to the tangible and intangible external forces emerging from the attribute that attract the individual to a specific destination and establish the actual specific destination choice (Ballo & Etzel, 1985; Cha, McCleary & Uysal, 1995; Dan, 1981; Kim, Crompton & Botha, 2000; Klenosky, 2002; Uysal & Jurowski, 1994; and Uysal & Hagan, 1993).

Perceived Risk - refers to the individual's perceptions of the uncertainty and negative consequence of buying a product (or service) (Dowling & Staelin, 1994), performing a certain activity, or choosing a certain lifestyle (Reisinger & Mavondo, 2005).

Perceived Destination Image – refers to a sum total of the images of individual element or attributes that make up the tourism experience (Milman & Pizam, 1995).

Perceived Quality – defined as the consumer's judgment about the superiority or excellence of a product (Zeithmal, 1988); the customer's overall assessment of the standard of the service delivery process (Hellier, Geursen, Carr & Rickard, 2003, p.1766).

Perceived Value – defined as "the consumer's overall assessment of the utility of product based on perceptions of what is received and what is given" (Zeithaml, 1988, p.14). The customer's overall appraisal of the net worth of the service, based on the customer's assessment of what is received (benefits provided by the service), and what is given (costs or sacrifice in acquiring and utilizing the service, Hellier et al, 2003, p. 1765).

Overall Satisfaction – Satisfaction with a hospitality experience is a sum total of satisfactions with the individual elements or attributes of all products and services that make up the experience (Pizam & Ellis, 1999)."Satisfaction" is the result of a post consumption or post usage evaluation containing both cognitive and affective element (Oliver 1997).

Behavioral Intention – refers to an individual's decision or commitment to perform a given behavior (Ajzen & Fishbein, 1980). In this study, behavioral intention included word of mouth, repeat visit, and willingness to pay more.

Frequent Visit – in this study, frequent visit is regarded as previous visitation or direct experience with a destination.

Organization of the Study

This study is divided into five chapters. Chapter 1 presents a general introduction and overview of the study including an overview and significance of medical tourism, background of the problem, research questions, purpose and objectives, and significance of the study. Chapter 2 provides and discusses the previous literature and studies on medical tourism. Chapter 3 describes the research methodology that used in the study. Information on the respondents of the study, sources of data, the instruments used for collection of the data and statistical treatment of the data. Chapter 4 reports the findings from the data analyses and hypothesis testing. Finally, Chapter 5 discusses the results, implications, and recommendations of the study.

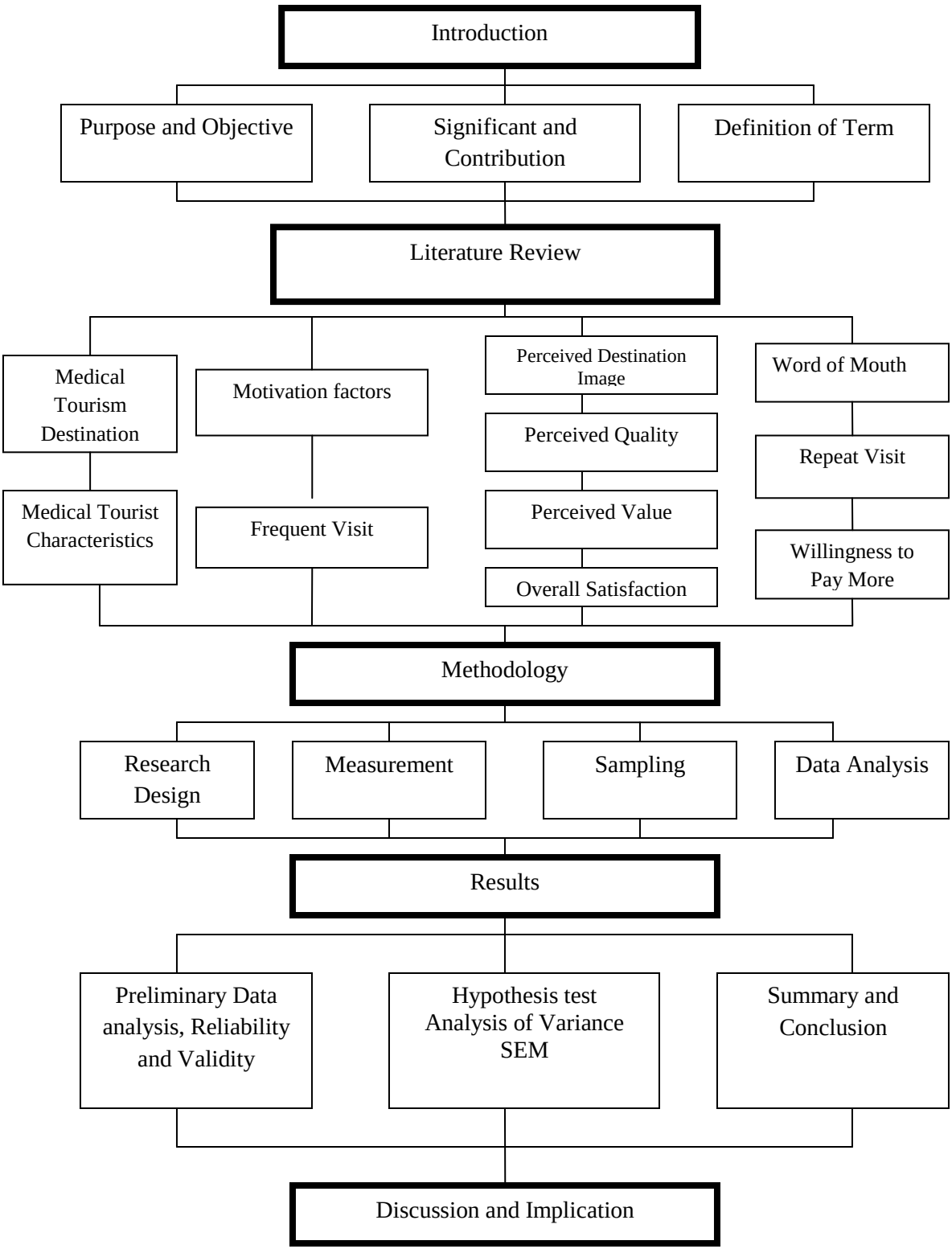


Figure 1.2: Organization of the Study

CHAPTER II

LITERATURE REVIEW

This chapter presents a literature review and a discussion relevant to the purpose and objectives of the study. First, it begins by providing an overview of medical tourism including; the description, location, and characteristics of medical tourists. Second, it discusses the push and pull motivation factors. Next, it explains perceived destination image, perceived quality, perceived value, overall satisfaction, future behavioral intention of customers, and the relationship of these constructs as a theoretical framework of the study. The chapter further discusses the frequent visit as a moderator on the relationship between constructs.

Health Tourism and Medical Tourism

Health tourism is broadly defined as people traveling from their place of residence for health reason which include the maintenance, enhancement or restoration of the individual's well-being in mind and body. In addition to conventional health service, this definition encompasses cosmetic surgery, addiction treatments, spas, retirement communities, and some alternative health services (Carrera & Bridges, 2006; Huff-Rousselle, Shepherd, Cushman, Imrie, & Lalta, 1995)

Henderson (2004) stated that the health care considered from medical tourism through cosmetic surgery to spas and alternative therapies. Health tourism and medical tourism are two different but related concepts with the medical tourism conceptually serving as a subset of health tourism (Carrera & Bridges, 2006). The following figure present scope of medical and healthcare tourism.

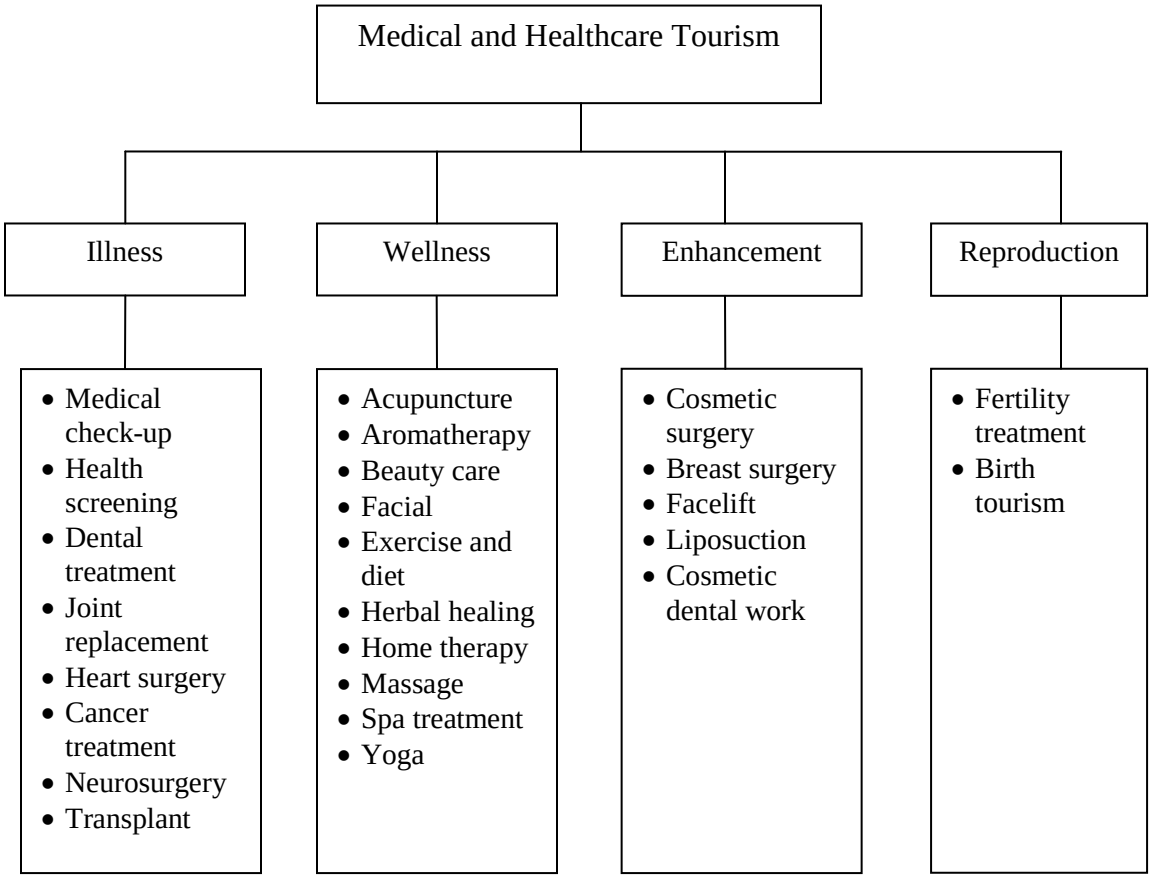


Figure 2.1: Medical and Healthcare Tourism Segment
Source: Tourism Research and Marketing (2006) Medical Tourism: A Global Analysis. London: ATLAS, pp.14.

Medical Tourism Regions

At least 28 countries on four continents cater to the international health traveler, with more than a million patients visiting hospitals and clinics each year in countries other than their own (Woodman, 2007). Specifically, several less affluent nations in many regions have been promoting their country as medical tourism destinations.

Several countries in many regions are promoting medical tourism. Some of these include Costa Rica and Cuba for South America and the Caribbean; Hungary and Lithuania in Eastern Europe; Jordan, India, Israel, Malaysia, Thailand and Turkey in Asia; South Africa in the African continent. Runckel (nd.) mentioned that the major hub destination of medical tourism is in Asia. The countries include India, Singapore, and Thailand; whereas the minor hub destinations are Costa Rica, Hungary and South Africa.

The scope of this activity is surprising, with Asian countries of Thailand, Singapore, India, South Korea, and Malaysia attracting a combined $1.3 million medical tourists per year from around the world, and increasing annually. The estimated worth in Asia alone will be at least $4 billion by 2012. India attracted an estimated 100,000 medical tourists in 2005. In Singapore, the estimated number of patients was 300,000 and more than a million medical tourists in Thailand (Newman, 2006). Specifically, Henderson (2004) preliminarily analyzed that the major healthcare destination in Southeast Asia included Malaysia, Singapore and Thailand. The study stated that the health care considered as medical tourism included cosmetic surgery to spas and alternative therapies.

The travel industry recognizing this opportunity, now creates packages that include airfare, hotel accommodations, and surgical expenses, with the claim of saving 80% compared with the medical expenses in the U.S. (Newman, 2006). Woodman (2007) suggested that for American patients, if the medical services cost $6,000 or more, there is an opportunity for the patients to obtain the same quality of medical treatments including travel and lodging with lower out of pocket expense.

Woodman (2007) further discussed particular regions for patients who are looking for specific medical treatments. He indicated that, Mexico, Costa Rica, and Hungary are common destinations for dentistry, while cosmetic surgery patients choose medical treatments in Brazil, Costa Rica, and South Africa. However, for more costly and complicated treatments, the more distant locations such as India, Thailand, Singapore, and Malaysia are a significant value for this type of tourism.

Table 2.1: The Most-Traveled Health Destinations

Treatment	Brazil	Caribbean	Costa Rica	Czech Republic	Hungary	India	Malaysia	Mexico	Singapore	South Africa	Thailand	UAE
Cardiac			**			✓	✓		✓	**	✓	✓
Cosmetic & Plastic Surgery	✓		✓	**	**		**	✓	**	✓	✓	
Dentistry	**		✓	✓	✓	**	**	✓	**	✓	✓	
Fertility & Reproductive	**					**	**		✓	**	✓	
Neurology and Spine						✓			✓		✓	
Orthopedic (all)			**			✓	✓	**	✓	**	✓	✓
Total Hip Replacement						✓	✓		✓		✓	✓
Birmingham Hip Resurfacing						✓			✓		✓	
Oncology			**			✓	**		✓	**	✓	✓
Stem Cell Research									✓		✓	
Sex Change & Cosmetic	✓								**	**	✓	
Weight Treatment (Bariatric)	✓		**			✓	✓	✓	✓	✓	✓	
Wellness/ Alternative		✓			✓	✓	✓		✓	✓	**	

✓ Primary destination for health travelers
** Secondary destination for health travelers

Source: Josef Woodman (2007). *Patients Beyond Borders*, Chapel Hill, NC: Health and Travel Media, pp.182 – 183.

Characteristics and Determinants of Demand of Medical Tourism

The medical tourists as defined by Tourism Research and Marketing (2006) are considered to be persons who travel from their normal place of residence to a destination at which medical or surgical treatment is provided or performed, involving more than one night away from the country of residence. There are two types of medical tourists. The first group is the leisure tourist that incorporates a visit to the doctor for some minor treatment, as part of his or her vacation. The second group is the tourist traveling specifically for medical treatment (Diethelm Travel's, 2005).

The major flow of medical tourists who are in the "illness" sector essentially seem to be from the developed countries with large population travelling to less developed or developing countries (CBSNews Online, 2004; Tourism Research and Marketing, 2006). The reasons patients travel to international destination vary by geographic region. Several factors that cause the popularity of medical tourism include: high cost of healthcare in developed countries, long waiting time to get non-urgent medical service, standard improvement of health care in less developed countries, ease and affordability of international travel, and development of the internet. The demand for low-cost health care services is driving Americans, both insured and uninsured, and employers seeking to reduce the costs of treatment through international outsourcing of medical and surgical care (Forgione & Smith, 2007). As discussed in Bookman and Bookman (2007), determinants of demand in medical tourism involve two aspects as follows; (1) demand for medical tourism in general and (2) demand for medical tourism in any one particular country. The general demand for medical tourism requires the usual determinants of demand including personal income, taste, openness to the outside world, expectations

about future prices, and availability of health care. For the country-specific demand, factor such as cultural affinity, distance from home, medical specialization, and medical service reputation are relevant.

Medical tourists generally come from North America, Europe and the United Kingdom, Middle East and Japan. This is because of their large populations, comparatively high wealth, high expense of health care, lack of healthcare options locally, and increasingly high expectations of their populations with respect to healthcare (Youngman, 2007). For example, many Japanese companies even send their employees to Thailand and Singapore for annual physical examinations, as the savings on medical fees and high quality medical care make the airfare inconsequential (Connell, 2006). Similarities to Japanese corporations, Bies and Zacharia (2007) stated that to a certain extent, in the U.S., medical procedures are outsourced to India with the most common reasons of cost, long waiting times, and insurance not covering the specific medical treatment. Heart surgery, knee and hip replacement, and elective and cosmetic surgery are the most common U.S. outsourced medical procedures.

Clearly a large draw of medical travel is convenient in comparison to the situation in home countries. Some countries with a public health-care system have waiting lists to get a much needed medical care. The time spent waiting for a procedure, such as a hip replacement, can be months in Britain and Canada; however, in Singapore, Hong Kong, Thailand, Columbia, the Philippines or India, a patient could have an operation the day after their arrival (Youngman, 2007).

THEORY OF MOTIVATION

Previous studies on tourist motivation factors have concluded that factors that influence a travel decision can be categorized into two factors: “push factors” and “pull factors.”

Push and Pull Motivation Factors

Tourists’ motivation based on the concepts of “push” and “pull” factors has been investigated by a number of researchers (Dann, 1977; Yuan & McDonald, 1990; Klennosky, 2002 ; Hanquin & Lam, 1999; Lam & Hsu, 2006; Kim, Lee, & Klenosky, 2003; Kim & Lee, 2002). The literature concluded that “push factors” are related to the cognitive process and internal socio-psychological motivation of the individual to travel (Cha, McCleary & Uysal, 1995; Chon, 1989; Dan, 1981; Uysal & Jurowski, 1994). Most “push factors” originate from the intangible or intrinsic desires of human beings, including the desire for escape, novelty seeking, adventure seeking, dream fulfillment, self exploration, rest and relaxation, health and fitness, prestige, and socialization (Chon, 1989; Lam & Hsu, 2006; Uysal & Jurowski, 1994; Yuan & McDonald, 1990).

“Pull factors,” on the other hands, are the external forces emerging from the attributes that attract the individual to a specific destination and establish the actual specific destination choice (Ballo & Etzel, 1985; Cha, McCleary & Uysal, 1995; Dan, 1981; Uysal & Jurowski, 1994). “Pull factors” have been characterized in terms of both tangible and intangible features such as natural and historical attractions, physical environment, infrastructure, sport and recreation facilities, food, people and the marketed

image of the destination (Kim, Crompton, & Botha, 2000; Klenosky, 2002; Uysal & Hagan, 1993).

To examine the motivational concept of "push" and "pull" factors, Yuan & McDonald (1990) examined the motivations of international tourists travelling for a pleasure purpose. Their study indicated that travelers from the four countries (France, Japan United Kingdom, and West Germany) traveled to satisfy their unmet needs such as relaxation, prestige, enhancement of kinship relationship, escape, and novelty. Cha et. al. (1995) found the psychological intrinsic reason to travel by cluster motivations of Japanese who travel abroad. The results highlighted three groups of travelers namely sports seekers, novelty seekers, and family/relaxation seekers. Further, Kim, Lee, & Klenosky (2003) also confirmed the influence of "push" and "pull" motivation factors by examining visitors' reasons for visiting Korean national parks. The study indicated that visitors were "pushed" to travel by their need to escape their daily routine, appreciate natural resources and health, adventure and build friendship, and family togetherness and study.

Several investigations of "pull factors" have been reported in travel and tourism literature. Yuan and McConald (1990) discovered pull motivations on vacations which include hunting, wilderness, facilities, cosmopolitan environment, culture and history, east of travel, and budget. To confirm the "pull" attributes of destinations, Fakeye and Crompton (1991) identified six "pull factor" domains from 320 attribute items using a sample of visitors to a well-known winter destination in Texas. The "pull factors" identified included "social opportunities and attractions," "natural and cultural amenities," "accommodations and transportation," "infrastructure, foods, and friendly

people," "physical amenities and recreation activities," and "bars and evening entertainment." In their study, the perceived importance of the attribute domains differed among non-visitors, first timers and repeaters. Turnbull and Uysal (1995) found six "pull factors" including "heritage/culture," "city enclave," "comfort-relaxation," "beach resort," "outdoor resources," and "rural and inexpensive." They identified differences in the perceived importance of the "pull factors" examined among visitors from different nationalities. Kim, Crompton, and Botha (2000) reported four domains of destination attributes, such as "entertainment," "infrastructure," "physical environment," and "high profile entertainment opportunities."

In addition to the general motivation factor of tourists traveling for pleasure purpose, which was previously mentioned, the motivation factors specifically to health or wellness tourists should also be included in the study. Chen, Prebensen, and Huan (2008) explored the underlying tourists' travel motivation to a wellness destination. Their study revealed that relaxation, pursuing multiple activities, recreation, and enjoying nature are the primary motivations.

Table 2.2: Summary of Previous Studies Examining Push and Pull Factors of Motivations

Researchers	Push Factors	Pull Factors
Dann (1977)*	Anomie, ego enhancement	
Crompton (1979)*	Escape, self-exploration and evaluation, relaxation, prestige, regression, enhancement of kinship relationships, social interaction	Novelty, education
Yuan and McDonalds (1990)*	Escape, novelty, prestige, enhancement of kinship relationships, relaxation/hobbies	Budget, culture and history, wilderness, ease of travel, cosmopolitan environment, facilities, hunting
Fodness (1994)*	Ego-defense, knowledge, reward maximization, punishment avoidance, value expression, social adjustive	
Uysal and Jurowski (1994)*	Re-experiencing family togetherness, sports, cultural experience, escape	Entertainment/resort, outdoors/nature, heritage/culture, rural/inexpensive
Turnbull and Uysal (1995)*	Cultural experiences, escape, re-experiencing family, sports, prestige	Heritage/culture, city enclave, comfort/relaxation, beach resort, outdoor resources, rural and inexpensive
Oh, Uysal, and Weaver (1995)*	Knowledge/intellectual, kinship/social interaction, novelty/adventure, entertainment/prestige, sports, escape/rest	Historical/cultural, sports/activity, safety/upscale, nature/outdoor, inexpensive/budget
Cha, McCleary, and Uysal (1995)*	Relaxation, knowledge, adventure, travel bragging, family, sports	
Baloglu and Uysal (1996)*	Four canonical variate pairs of push and pull items were identified but were not labeled. These varieties were used to identify four market segments labeled; sports/activity seekers, novelty seekers, urban-life seekers, beach/resort seekers	
Sirakaya and McLellan (1997)*		Local hospitality and services, trip cost and convenience, perceptions of a safe/secure environment, change in daily life environment, reaction of sporting activities, entertainment and

		drinking opportunities, personal and historical link, cultural and shopping services, unusual and distant vacation spot
Hanquin and Lam (1999)**	Seeing something different, Facilitating family and kinship ties, Visiting friends or relatives, Increasing knowledge about a foreign destination, Being with family, Physical resting/relaxing, Being able to share travel experiences after returning home, Experiencing a different lifestyle, Visiting cultural/historical attractions, Visiting a destination which most people value and/or appreciate, going to places the friends want to go	Positive attitude of Hong Kong residents and service staff to mainland China tourists, Convenience of transport, Quality of local transportation system, International cosmopolitan city, Quality of tourist services, Shopping paradise, Ease of travel arrangement, Acceptable climate, Seven-day visa free policy for transit passengers from China, Capital of modern technology
Klenosky (2002)**	Outdoor recreation, Get sun/tan, Enjoy nature, New/novel experience, Escape, Rest/relax, Socialize/meet people, Look good/healthy, Learn more, Challenge/thrill, Get refreshed/ renewed, Date more, Know more, Be more productive, Accomplishment, Fun and enjoyment, Excitement, Self-esteem	Beaches, Scenic/natural resources, Warm climate, Party atmosphere, New/unique location, Skiing, Historical/cultural attractions
Kim, Lee, and Klenosky (2003)**	Family togetherness and study, Appreciating natural resources and health, Escaping from everyday routine, Adventure and building friendship	Key tourist resources, Information and convenience of facilities, Accessibility and transportation

Source: * Klenosky, D. B. (2002). The "Pull" of Tourism Destinations: A Means-End Investigation. *Journal of travel Research*, Vol. 40, pp. 387.
** *Researcher*

Push and Pull Relationship

The "push-pull" framework provides a simple and intuitive approach for explaining the motivations underlying tourist behavior (Dann, 1977). However, the concept has generally been characterized as relating to two separate decisions made at two separate points in time – one focusing on whether to go or not, the other on where to go (Klenosky, 2002). The motivation as a construct in tourism has been conceived in a unidimensional manner. As such, it was seen as being either a behavioral or cognitive construct. (McCabe, 2000). Similarly, Dann (1981) pointed out, "potential tourists in deciding where to go may also take into consideration various pull factors which correspond adequately to their motivational push" (Dann, 1981, p.206). In particular, it has been noted that while the internal forces push people to travel, the external forces of the destination itself simultaneously pull them to choose that particular destination (Cha, McCleary & Uysal, 1995; Uysal & Jurowski, 1994; Kim, Lee & Klenosky., 2003). In contrast to the perspective of explored push and pull factors separately, researchers have suggested that push and pull factors should not be viewed as being entirely independent of each other but rather as being as fundamentally related to each other (Kim, Lee & Klenosky, 2003; Klenosky, 2002). Previous literature suggests that the motivational factors (push and pull) have influence on the decision whether to travel or not and the perceived destination image of the tourism destination.

PERCEIVED DESTINATION IMAGE

Image is formulated based on news, media, advertisement, and word of mouth (Mayo & Jarvis, 1981). A number of tourism researchers have studied the destination image construct and its influence on tourists' behavior, the travel selection process, and travel satisfaction (Bigne, Sanchez & Sanchez, 2001; Chon, 1990; Hunt, 1975; Ritichainuwat, Qu & Brown, 2001; Ritichainuwat, Qu & Leong, 2003).

Destination image was conceptualized as evolving from an organic image, through an induced image, to a complex image. These image phases were linked to the informative, persuasive, and remaining functions of promotion (Fakeye & Crompton, 1991). Destination image should be composed of perceptions of individual attributes (such as climate, accommodation facilities, and friendliness of people) as well as more holistic impressions (mental pictures or imagery) of the place (Echtner & Ritchie, 1993). It is possible to say that the image of destination is a sum total of the images of the individual elements or attributes that make up the tourism experience (Milman & Pizam, 1995).

Fakeye & Crompton (1991) analyzed destination image of perspective, first-time, and repeat long-stay winter visitors to the Rio Grande Valley in Texas. Significant differences on all five of the image factors (social opportunities and attractions, natural and cultural amenities, accommodations and transportation, infrastructure, foods and friendly people, and bars and evening entertainment) were derived from non-visitors and the other two subsamples. Length of stay was found to significantly affect image on two of five factors.

Kotler, Bowen, and Makens (1996) considered that the following sequence could be established: image → quality → satisfaction → post purchase behavior. In this way, image would affect how customers perceive quality. Tourism image exercises a positive influence on perceived quality and satisfaction, because it creates expectations that individuals forms before the visit, and these variables depend on the comparison of such expectations with experience (Font, 1997; Phelps, 1986, Beigne et. al, 2001).

Bigne, Sanchez and Sanchez (2001) pointed out the influence of tourism image on consumer behavior. The study investigated that tourism image will also exercise some influence on the quality perceived by tourists and on the satisfaction obtained from the holiday experience. They focused on the relationship between the images of destination, as perceived by tourists, and their behavioral intensions, with that same image and the post-purchase evaluation of the stay. The study also examined the relationship between quality and satisfaction and between these variables and the tourist's behavior variables. The results indicated that tourism image is a direct antecedent of perceived quality, satisfaction, intention to return and willingness to recommend the destination. The results also confirmed that quality has a positive influence on satisfaction and intention to return and that satisfaction determines the willingness to recommend their destination. However, the influence of quality on "willingness to recommend" and the influence of satisfaction on "intention to return" cannot be corroborated.

Table 2.3: Dimensions/Attributes Determining the Perceived Destination Image

Natural Resources	**General Infrastructure**	**Tourist Infrastructure**
*Weather *Temperature* *Rainfall* *Humidity* *Hours of sunshine* *Beaches *Quality of seawater* *Sandy or rocky beaches* *Length of the beaches* *Overcrowding of beaches* *Wealth of countryside *Protected nature reserves* *Lakes, mountains, deserts, etc.* *Variety of uniqueness of flora And fauna	*Development and quality of roads, airports and ports *Private and public transport facilities *Development of health services *Development of telecommunications *Development of commercial infrastructures * Extent of building development	*****Hotel and self-catering accommodation *Number of beds* *Categories* *Quality* *Restaurants *Number* *Categories* *Quality* *Bar, discotheques and clubs *Ease of access to destination *Excursions at the destination *Tourist centers *Network of tourist information
Tourist Leisure and Recreation	**Culture, History and Art**	**Political and Economic Factors**
*Theme parks *Entertainment and sports activities *Golf, fishing, hunting, skiing, scuba diving, etc.* Water parks Zoos Trekking Adventure activities Casino Night life Shopping	*Museums, historical buildings, *Monuments, etc. *Festival, concerts, etc. *Handicraft *Gastronomy *Folklore *Religion *Custom and ways of life	*****Political stability *Political tendencies *Economic development *Safety *Crime rate* *Terrorist attacks* *Prices
Natural Environment	**Social Environment**	**Atmosphere of the Place**
*****Beauty of the scenery *Attractiveness of the cities and towns *Cleanliness *Overcrowding *Air and noise pollution *Traffic congestion	*Hospitality and friendliness of The local residents *Underprivileged and poverty *Quality of life *Language barriers	*Luxurious *Fashionable *Place with good reputation *Family-oriented destination *Exotic *Mystic *Relaxing *Stressful *Fun, enjoyable *Pleasant *Boring *Attractive or interesting

Source: Beerli, Asuncion and Martin, Josefa (2004). Factor Influencing Destination Image. *Annals of Tourism Research*. Vol. 31, (3), pp. 659.

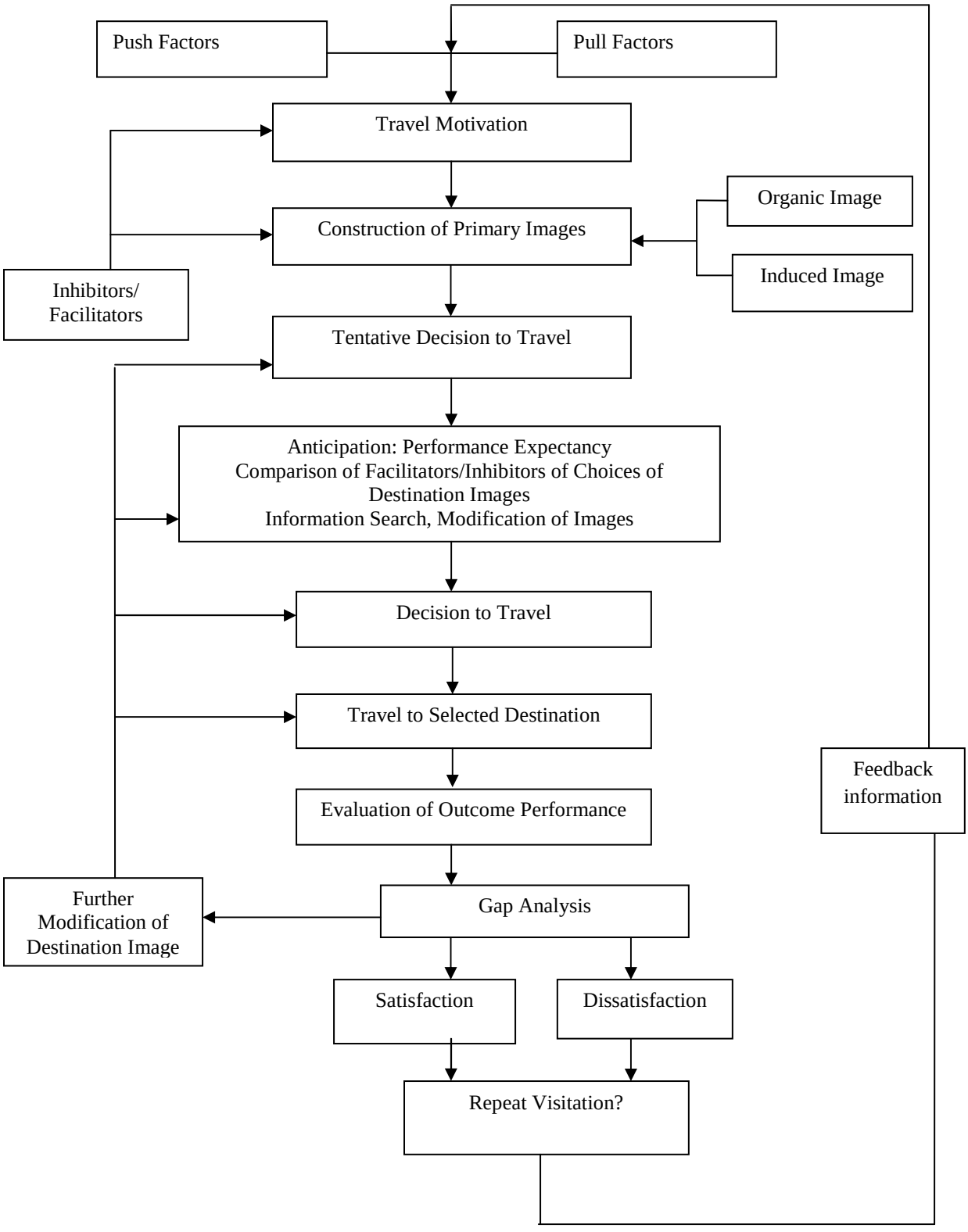


Figure 2.2: A Model of Destination Image and Travel Behavior (source: Chon, 1990, p6)

PERCEIVED QUALITY

In the tourism and recreation field, distinction has been made between quality of opportunity or performance, and satisfaction and quality of experience (Baker & Crompton, 2000). Quality of performance, which may also be termed quality of opportunity, refers to the attribute of a service which is primarily controlled by a supplier. It is the output of a tourism provider. Evaluations of the quality of performance are based on tourists' perceptions of the performance of the provider (Baker & Crompton, 2000).

In contrast, satisfaction refers to an emotional state of mind after exposure to the opportunity. It recognizes that satisfaction may be influenced by the social-psychological state a tourist brings to a site (mood, disposition, needs) and by extraneous events (for example climate, social group interactions) that beyond the provider's control, as well as by the program or site attributes that suppliers can control. Thus, performance quality is conceptualized as a measure of provider's output, whereas level of satisfaction is concerned with measuring a tourist's outcome. All else equal, higher quality performance in facility provision, programming, and service are likely to result in a higher level of visitor satisfaction (Baker & Crompton, 2000). Mefford (1993) and Moore & Schlegelmilh (1994) had suggested that service quality was primarily dependent on two variables: expected service and perceived service.

The study of Zeithamal (1988) had identified differences of "Objective Quality" from "Perceived Quality". Objective quality refers to measurable and verifiable superiority on some predetermined ideal standard or

standards. However, perceived quality is (1) different from objective or actual quality, (2) a higher level abstraction rather than a specific attribute of a product, (3) a global assessment that in some cases resembles attitude, and (4) a judgment usually made within a consumer's evoke set (Zeithmal, 1988). Specific to health care industry, perceived service quality is based on patients' judgment about the service's overall excellence or superiority (Gupta & Chen, 1995). Parasuraman, Zeithaml, and Berry (1988) have identified five service quality dimensions consisted of tangible, reliability, responsiveness, assurance, and empathy called SERVQUAL to measure services. However, Bowers, Swan & Koehler (1994) stated the generic service quality dimensions were difficult to translate in order to evaluate the health care services. Thus, Jun, Peterson & Zsidisin (1998) narrowly focused on measurement of service quality dimensions which is applicable to health care. The results of their focus group study indicated eleven dimensions: tangibles, reliability, responsiveness, competence, courtesy, communication, access, caring, patient outcomes, understanding patient, and collaboration.

PERCEIVED VALUE

Value can be defined as a comparison between what consumers get and what they give, suggesting that value is a comparison of benefits and sacrifices (Zeithmal, 1988). Perceived value has its root in equity theory, which considers the ratio of the consumer's outcome/input to that of the service provider's outcome/input (Oliver & DeSarbo, 1988). Service quality has been shown to be an antecedent of perceived service value (Bolton & Drew, 1991).

Sweeny and Soutar (2001) developed 19-items with four distinct value dimension of emotional, social, quality/performance and price/value of money to measure customers' perceptions of the value (PERVAL) of a consumer's durable goods at a brand level. However, most researches in perceived value had been focused on goods and services, but not in the tourism filed. Patrick (2002) have developed 25-item instrument of and identified five dimensions perceived value of a service in terms of behavioral price, monetary price, emotional response, quality, and reputation. Eggert and Ulaga (2002) examined whether value is a better predictor of behavioral outcomes than satisfaction. Their study empirically tested two models. The first model revealed that there was a direct impact of perceived value on customer intentions. The second model indicated that perceived value is mediated by satisfaction. Thus, their study stated that value and satisfaction can be conceptualized and measured as two distinct, but complementary constructs.

OVERALL SATISFACTION

Customer satisfaction is a psychological concept that involves the feeling of well-being and pleasure that results from obtaining what one hopes for and expects from an appealing product and/or service (WTO, 1985 in Pizam & Ellis, 1999). It is possible to say that satisfaction with a hospitality experience is a sum total of satisfactions with the individual elements or attributes of all the products and services that make up the experience (Pizam & Ellis, 1999). Specifically, "Tourism satisfaction" refers to the emotional state of tourists after exposure to the opportunity or experience (Baker and Crompton, 2000). When customers experience the attributes of the hospitality experience, they form a set of independent impressions on each and compare those with the expectations of the same attributes (Pizam & Ellis, 1999).

Since the medical tourists are specific travelers who combine medical treatment and tourism together. The concept of "patient satisfaction" of health care industry should be consideration. Linder-Pelz (1982) proposed five social-psychological variables determinants of satisfaction with health care as follows:

- occurrences – the individual' s perception of what occurred;
- value – evaluation, in terms of good or bad, of an attribute or an aspect of health care encounter;
- expectations – beliefs about the probability of certain attributes being associated with an event or object, and the perceived probable outcome of that association;

- interpersonal comparisons – an individual's rating of the health care encounter by comparing it to all such encounters known to or experienced by him or her; and
- entitlement – an individual's belief that he or she has proper, accepted grounds for seeking or claiming a particular outcome (Linder-Pelz, 1982)

Sitzia and Wood (1997) reviewed literatures related to patient satisfaction. Their study classified four components of patient satisfaction in terms of 1) accessibility, 2) interpersonal aspects of care, 3) technical aspects of care, and 4) patienteducation/ information. The study concluded that two strongest predictors of satisfaction of all dimensions were older age and better self-perceived health status at admission.

Thi, Briancon, Empereur, and Guillemin (2002) identified factors associated with satisfaction of in-patients receiving medical and surgical care from hospital. The study included seven satisfaction dimensions: 1) admission, 2) nursing and daily care, 3) medical care, 4) information, 5) hospital environment and ancillary staff, 6) overall quality of care and services, and 7) recommendations/intentions.

In terms of satisfaction evaluation, Pizam and Ellis (1999) further discussed that because customers make trade-offs of one attribute for another in order to make decisions, thus, the overall satisfaction can be measured.

BEHAVIORAL INTENTION

Behavioral intentions are a multi dimensional concept, consisting of word-of-mouth (WOM), purchase intentions, price sensitivity, and complaining behavior (Alexandris, Dimitriadis & Markata, 2002).

Interpersonal influence and word-of-mouth (WOM) are ranked the most important information source when a consumer is making a purchase decision. These influences are especially important in the hospitality and tourism industry, whose intangible products are difficult to evaluate prior to their consumption (Litvin, Goldsmith & Pan, 2008). A 1976 study of consumer attitudes toward health care found that the largest segment of consumer reported that the most important aspect in choosing their doctor was a recommendation by a friend or relative (Woodside & Moore, 1987).

Re-purchase intention refers to the individual's judgment about buying again a designated service from the same company, taking into account his or her current situation and likely circumstances (Hellier, Geursen, Carr & Ricard, 2003).

The study of Kim, Han and Lee (2001) about the effects of relationship marketing on repeat purchase and word of mouth revealed that greater guest confidence and communication result in higher relationship quality, and higher relationship quality results in greater guest commitment and more repeat purchase and positive word of mouth.

RELATIONSHIP OF PERCEIVED QUALITY, PERCEIVED VALUE, OVERALL SATISFACTION AND BEHAVIORAL INTENTION

Service quality, perceived value, and customer satisfaction have been suggested to have an influence on customers' post purchase behavior (Tam, 2000). Tam (2000) studied restaurant industry on the effects of service quality, perceived value, and customer satisfaction on behavioral intentions. The results revealed that customer satisfaction was strongly correlated with perceived performance. In addition, the satisfaction has stronger effect on behavioral intentions than perceived value. Further, the effect of service quality on behavioral intention was mediated through customer satisfaction.

Parasuraman, Zeithml, and Berry (1985) distinguished quality and satisfaction by defining quality as a gestalt attitude toward a service which was acquired over a period of time after multiple experiences with it, whereas satisfaction was seen to relate to a specific service transaction.

Patterson and Spreng (1997) modeled the relationship between perceived values, satisfaction and re-purchase intentions in a business-to-business, service context. Their study hypothesized that perceived performance will be positively associated with value, value will be positively associated with re-purchase intensions, and each perceived performance dimension will be positively associated with satisfaction. The study concluded that value was found to have a strong and significant impact on satisfaction. Also, satisfaction has a significant effect on intentions

Bolton and Drew (1999) developed a model of customers' assessments of service quality and value by using customers of telephone service as a sample of the study. The

researchers studied on how customers with past experiences and expectations assess service performance levels, overall service quality, and service value. The results revealed that perceived performance have an important direct effect on service quality and service value assessment.

McDougall and Levesque (2000) investigated the relationship between service quality (core and relational), perceived value, customer satisfaction and future intentions across dentist, auto service, restaurant, and hair stylist. Their study disclose that core service quality (the promise) and perceived value were the most important drivers of customer satisfaction with relational service quality (the deliver) a significant, but less important driver. A direct linkage between customer satisfaction and future intention was established. The relative importance of the three drivers (core quality, relational quality, and perceived value) of satisfaction varied among services. Specifically, the importance of core service quality and perceived value was reversed depending on service. A major conclusion was that both perceived value and service quality dimensions should be incorporated into customer satisfaction models to provide a more complete picture of drivers of satisfaction.

Olsen (2002) conducted a study on relationship between qualities, satisfaction, and re-purchases loyalty of seafood product customers. The study proposed model that customer satisfaction is a mediator between perceived quality performance and purchase loyalty.

Baker and Crompton (2000) studied quality, satisfaction and behavioral intentions of tourists. Performance quality was conceptualized as the attributes of a service which

are controlled by a tourism supplier, while satisfaction referred to a tourist's emotional state after exposure to the opportunities (Baker & Crompton, 2000). Their study hypothesized that perceived performance quality would have a stronger effect on behavioral intentions than satisfaction. The hypothesis was confirmed. The study suggested that evaluation effort should include assessing both performance quality and satisfaction, but since performance quality is under management's control, it is likely to be a more useful measure.

In agreement with Baker and Crompton (2000), Petrick (2004) studied the roles of quality, value, and satisfaction in predicting cruise passengers' behavioral intentions. The study examines the relationships between satisfaction, perceived value, and quality in passengers' prediction of intentions to repurchase and positive worth of mouth publicity. The three constructs have been examined from three distinctly different perspectives, resulting in three competing models. Thus, the satisfaction model, perceived value model, and quality model were utilized to assess which one best explains cruise passenger's behavioral intentions. However, the results revealed that quality was the best predictor of intentions to re-purchase. Quality was found to have moderate and direct effect on behavioral intentions. Patrick (2004), in the study of First Timers' and Repeaters' Perceived Value also specifically discussed that quality was the best predictor of re-purchase intentions for first timer cruise passenger. However, for the repeaters, perceived value was the best predictor of their re-purchase intention.

Specifically, Choi, Cho, Lee, Lee, and Kim (2004) proposed an integrative model of health care consumer satisfaction based on established relationships among service quality, value, patient satisfaction and behavioral intention. The results based on the data

collected from 537 South Korea health care consumers corroborated the casual sequence among these constructs suggested by the multi-attribute attitude model framework, i.e. cognition (service quality and value)⟶ affect (satisfaction) ⟶ conation (behavioral intention). Between two cognitive constructs, service quality emerged as a more important determinant of patient satisfaction than value. Results also showed that both service quality and value have a significant direct impact on behavioral intention while value assessment was influenced by perceived quality.

Bolton and Drew (1991) assessed service quality and claimed that perceived performance have an important direct effect on service quality and service value assessment. Then, Patterson and Spreng (1997) concluded that value was found to have a strong and significant impact on satisfaction and satisfaction, in turn, was also found to have a significant effect on intentions. Further, Baker and Crompton (2000) confirmed that perceived performance quality would have a stronger effect on behavioral intention than satisfaction. Finally, Petrick (2004) proved that quality was found to have moderate and direct effect on behavioral intentions.

Lee, Graefe, and Burns (2004) conducted an interrelationship study on service quality and satisfaction, and their influence on forest visitors' behavioral intention. Their study revealed that service quality is an antecedent of satisfaction and satisfaction has a mediating effect on behavioral loyalty. In addition, the study further discussed that the effect of service quality on behavioral intention is as important as that of satisfaction.

The study of Kim, Han and Lee (2001) about the effects of relationship marketing on repeat purchase and word of mouth revealed that greater guest confidence and communication result in higher relationship quality, and higher relationship quality results in greater guest commitment and more repeat purchase and positive word of mouth.

The study of Gallarza and Saura (2006) aimed to investigate the link of relationship among perceived value, satisfaction, and loyalty in the tourism context of university student's travel behavior. The results of their study revealed that perceived value is a consistent positive attribute of satisfaction. As well as satisfaction is positive antecedent of loyalty.

In Tourism aspect, the study of Chi and Qu (2008) investigated the structural relationships of destination image, tourist satisfaction and destination loyalty. Their study disclosed that overall satisfaction had direct and positive impact on destination loyalty.

Specifically, in the area of medical services, Jung, Lee and Choi (2009) in the study of perceived service quality of the out patients visiting hospitals and their willingness to reutilize the same hospitals found that overall satisfaction perceived by patients significantly influences their willingness to use the same medical institution in the future.

Based on the previous literature discussed above, the following hypotheses are proposed:

H1: The motivation factors positively influence international medical tourists' perceived medical service destination image.

H2: International medical tourists' perceived destination image positively influences their perceived quality of medical treatment.

H3: International medical tourists' perceived quality positively influences their perceived value of medical treatment.

H4: International medical tourists' perceived quality positively influences their overall satisfaction of medical treatment.

H5: International medical tourists' perceived quality positively influences their word of mouth recommendation of medical treatment.

H6: International medical tourists' perceived value positively influences their overall satisfaction of medical treatment.

H7: International medical tourists' perceived value positively influences their word of mouth recommendation of medical treatment.

H8: International medical tourists' overall satisfaction positively influences their word of mouth.

H9: International medical tourists' word of mouth recommendation positively influences their repeat visit.

H10: International medical tourists' commitment positively influences their willingness to pay more.

FREQUENT VISIT

Familiarity with a destination is a significant concept for tourist destinations because of its vital role in tourist destination selection process (Baloglu, 2001). Familiarity with a destination, which is influenced by such factors as geographic distance, previous personal visitation experience, favorable opinion, and the level of knowledge about a destination, plays an important role in influencing an individual's perceptions of a particular destination (Hunt, 1975; Crompton, 1979; Phelps, 1986; Hu & Ritchie, 1993). Researchers agree that familiarity with a destination is likely to influence tourists' information search behavior and decision making process (Fodness & Murray 1997; Gursoy & Mccleary, 2004; Vogt & Fesenmaier 1998).

Hu and Richie (1993) investigated the effects of familiarity (previous visitation) on the perceived attractiveness of Hawaii, Australia, Greece, France, and China and reported significant differences between the images of non-visitors and visitors to some of these destination. The study pointed out that familiarity has an influence, not necessarily in a positive direction, but on perceptions of destination

The study by Milman and Pizam (1995) investigated product awareness, familiarity, interest and purchase on whether consumer awareness and familiarity with Central Florida, as a vacation destination, had an impact on the consumer's destination image and on the interest and likelihood to visit it. The results indicated that those who were familiar with Central Florida (i.e., had previously visited) had a more positive image of the destination, and were more interested in and likely to revisit it, than those who were only aware of the destination.

Following this Lam and Hsu (2005) conducted a study on predicting behavioral intention of choosing a travel destination of potential Taiwanese travelers to Hong Kong. The study concluded that past behavior was found to be related to behavioral intention of choosing a travel destination.

Geographic location is another of the attributes in familiarity with the destination. Hunt (1975) suggested that "distance from a region may be an important ingredient in image formation for respondents who reside farther from the region did not differentiate areas within the region as well as those respondents from closer markets."

In agreement with Hunt (1975), Crompton (1979) conducted the study of university students from the U.S. on image assessment of Mexico as a vacation destination and influence of geographical location upon the image. Interestingly, the results revealed that the farther away the respondents resided from Mexico, the more favorable their image of that country was as a vacation destination.

Additional to the "push and pull" motivation factors, previous literature has revealed that tourists' familiarity with destinations, such as previous personal visitation experience, geographic location, information on destinations and favorable opinion towards destinations have played a vital role on tourists' positive destination image and behavioral intention of choosing a travel destination (Crompton, 1979; Hunt, 1975; Hu & Ritchie, 1993; Milman & Pizam, 1995; Phelps, 1986). Fakeye and Crompton (1991) recognized the influence of multiple visits to a destination on perceptions and analyzed the images of prospective (non-visitors), first-time, and repeat visitors to the lower Rio Grand Valley in Texas. The results showed that images of non-visitors were significantly

different from first time and repeat visitors. The fact that the author could not find much change between first time and repeat visitors had led them to conclude that many of the perceptual changes occur during first direct experience rather than multiple experiences or visits.

The study of Balogu (2001) operationalized the familiarity as amount of information used (informational familiarity) and previous destination experience (experiential familiarity) of U.S. travelers to Turkey. The results revealed that the higher the familiarity, the more positive was the image of Turkey.

The literature review reveals that the majority of the studies revolving around familiarity (direct destination experience) found a positive relationship between familiarity and destination image.

Based on the literature about familiarity and frequent visit, thus, this study tests the moderating role of repeat visit on relationship between medical tourists' motivation and their perceived destination image. In this study, repeat visit is regarded as previous visitation or direct experience with a destination.

Therefore, the next hypotheses proposed:

H11: The international medical tourists' repeat visit has a moderating effect on the relationship between tourists' motivation and tourists' perceived destination image.

H12: The international medical tourists' repeat visit has a moderating effect on the relationship between perceived quality and perceived value.

H13: The international medical tourists' repeat visit has a moderating effect on the relationship between perceived quality and overall satisfaction.

The conceptual framework of the proposed relationship behavioral model of international medical tourists is presented in figure 2.5.

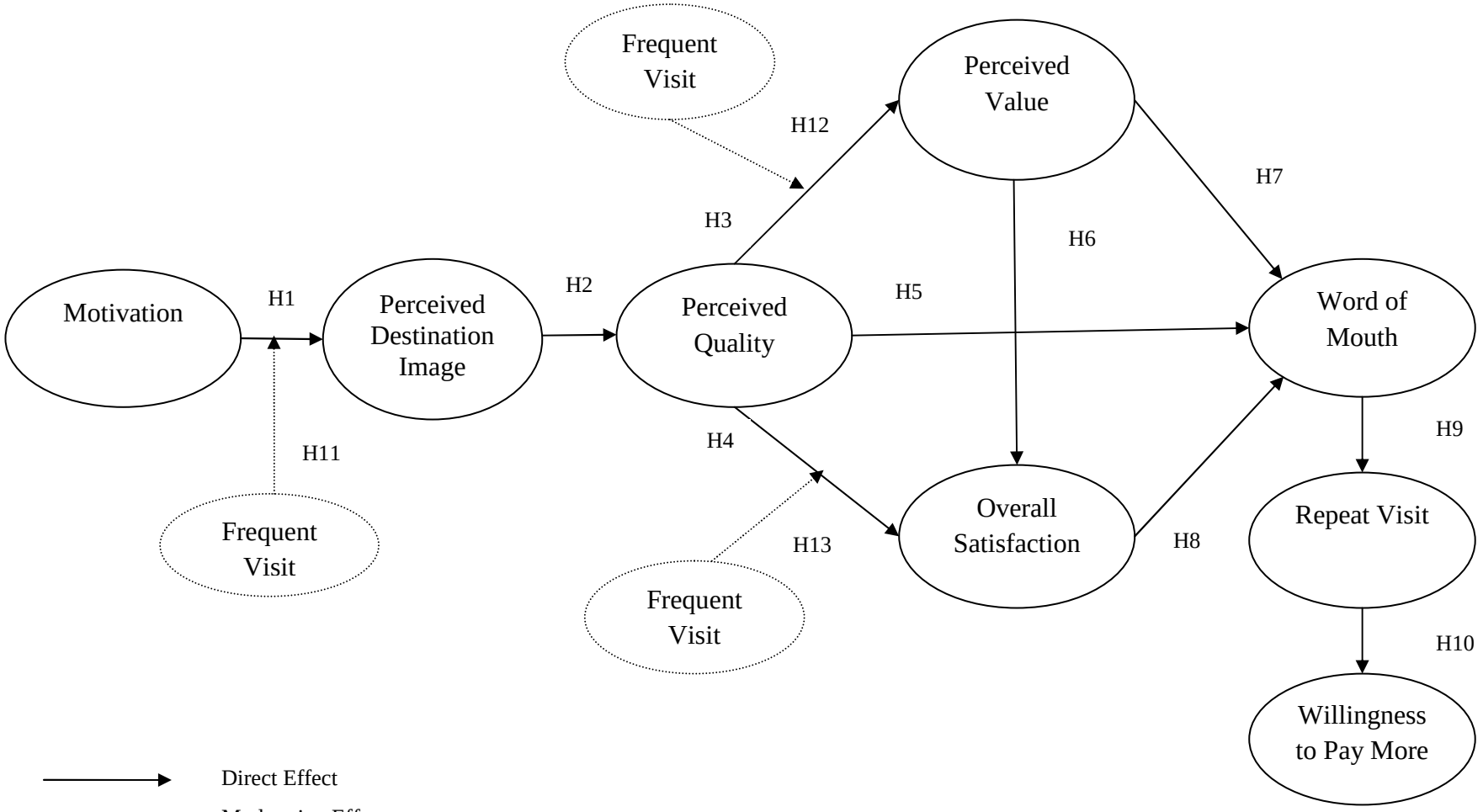


Figure 2.3: Theoretical model of International Medical Tourists Motivational Behavior and Perception

CHAPTER III

METHODOLOGY

This chapter discusses the research methodology to be used in this study. The chapter first discusses research design, research instruments and the validity and reliability of the instrument. The chapter then discusses sampling plan and sampling approach and the statistical method for data analysis.

Research Design

It is a descriptive and causal research design. The descriptive method is designed to gather information about existing condition. According to Caldron and Gonzales (1993) the descriptive method of research is a purposive process of gathering, analyzing, classifying, and tabulating data about the prevailing conditions, practices, beliefs, processes, trends, and cause and effect relationship, then making adequate and accurate interpretation about such data with or without the aid of statistical methods. Primarily, this method was to describe the profile of the international medical tourists, collecting the data through questionnaire to answer the question concerning the motivation factors, perceived destination image, perceived quality, perceived value, overall satisfaction, and

future behavioral intention of international medical tourists. The causal research is research design in which the major emphasis is on determining cause-effect relationships (Churchill & Brown, 2004). This method were used to establish a model of motivational behavior and perception and examine the structure relationship among international medical tourists motivation, behavior, and perception.

Research Instrument

The instrument of the study was developed based on the review of related literature on motivation factor, perceived risk, perceived quality and perceived value, overall satisfaction, word of mouth, repeat visit and willingness to pay more (Choi et al., 2004; Eggert & Ulaga, 2002; Saha et al., 1999; Vandamme & Leunis, 1993). In addition, structured interview with the hospital managers, doctors, and former patients was conducted to help researcher design the instrument that correctly indicates the specific characteristics and behavior of international medical tourists. The instruments and techniques use in the collection of data are as follows:

1. Structured Interview

The interview was utilized to gather basic information about international tourists, medical services provided by the hospital. It provided primary pertinent information to develop the questionnaire survey.

2. Survey Questionnaire

The survey questionnaire was used as main data gathering instrument for this study. The researcher s constructed the questionnaire based on the structured interview and previous literature.

An English survey questionnaire was used as a research instrument for this study. The questionnaire consisted 5 sections. The survey was developed on the basis of previous relevant literature.

The first section of the questionnaire gathered information with respect to behaviors of the international medical tourists. The section was composed of questions concerning the decision making behavior of international medical tourists. This section was included in the following questions; reason and type of medical service seeking, sources of information, alternative destination which considered, time period of making final decision, medical insurance coverage, travel arrangement and travel companion, and approximate expenses. Respondents were required to answer the entire question that was appropriate to their circumstance.

The second section of the questionnaire was designed to gather the information on motivation factors and perceived destination image. In this section, the respondents were asked to rate their agreement on the motivation factors, perceived destination image of Thailand in regard to general country image. This category was consisted of attribute regard to destination country, such as, destination geographic location, visa procedure, access and transportation, language and culture, and tourism opportunity. Another category included the specifics of medical destination image. The 7-point Likert- type

scale, with end-anchors labeled “strongly agree” and “strongly disagree” was used in this section.

Table 3.1: List of Motivational Factors and Perceived Destination Image

Motivational Factors and Perceived Destination Image Attributes	Category
1. Shorter waiting time for medical service than in your country	Push Motivation
2. Less expensive medical treatment than in your country	Push Motivation
3. Opportunity to combine medical service with a vacation	Push Motivation
4. Type of medical treatments that are not allowed in your country	Push Motivation
5. Type of medical treatments not covered by medical insurance in your country	Push Motivation
6. Preference of privacy and confidentiality	Push Motivation
7. Great place for relaxation after medical treatment	Pull Motivation
8. Variety of existing tourist attractions for recapturing patients	Pull Motivation
9. Reasonable price and significant amount of money savings	Pull Motivation
10. Opportunity for person who has no or limited medical insurance in his/her country	Pull Motivation
11. Various types and availability of medical services	Pull Motivation
12. Ease of accessibility from your country	DI- general
13. Ease of travel arrangements	DI- general
14. Ease of visa and immigration procedures	DI-general
15. Friendliness and helpfulness of the local people	DI- general
16. No language barriers in traveling in Thailand	DI- general
17. Tourists safety from crime and terrorist attack	DI-general
18. Political stability	DI- general
19. Well-reputed as a tourist destination	DI-general
20. Recognized hospital reputation	DI- medical
21. International hospital accreditation	DI- medical
22. High standard level of medical facilities	DI- medical
23. High standard level of medical staff	DI- medical
24. Recognized reputation of physicians	DI- medical
25. Western experienced/trained physicians	DI- medical
26. Ease of medical treatment arrangements	DI- medical

Note: DI – general = General Destination Image, and DI- medical = Medical Destination Image

The third section consisted of perceived quality of medical treatment which was categorized into two categories. The first category included medical related attribute, such as, hospital reputation and accreditation, physicians experience and reputation, availability of medical services, medical equipment and facilities. The second category included non-medical related attributes, such as, hospital, appointment and reservation system, protection against medical malpractice and liability. The 7-point Likert-type scale

was used in both categories of questions in this section with end-anchors labeled "strongly agree" and "strongly disagree."

Table 3.2: List of Perceived Quality of Medical Treatment

Perceived Quality	Category
1.The process for setting up the medical procedure appointment was simple and easy	Process
2. Ease of assembled and transmitted of medical record/information	Process
3. Short waiting time for the medical examination from the physicians	Process
4. The physicians paid enough attention to my concerns in deciding on a medical procedure	People
5. The physicians adequately explained my condition, examination results and medical process	People
6. The physicians allowed me to ask many questions, enough to clarify everything	People
7. The medical staff has good communication skill	People
8. Medical staff was polite and friendly	People
9. The hospital has state-of-the-art facilities and equipments	Amenities
10. Hospital care facilities (laboratory, doctors' office) were easy to find	Amenities
11.The hospital amenities (cafeteria, public telephone) were conveniently located	Amenities
12.The hospital has a strong concern of patient safety	Protection
13.The hospital's attention to patient's privacy, confidentiality and disclosure	Protection
14.The hospital has acceptable protection against medical malpractice and liability	Protection
15. The payment procedure was quick and simple	Process
16. Package pricing with price transparency	Price
17. Assistance with financial arrangements including advance estimates for fees, deposits, and payments	Price
18. Convenient hospital transportation arrangement	Additional Service
19. Arrangement for language interpretation service	Additional Service
20. Coordination arrangements between the patient, hospital, third party Insurance companies, embassies and other businesses	Additional Service

In the forth section of the questionnaire, perceived value, and overall satisfaction of medical treatment were asked in the form of 7-point Likert-type scale to measure, perceived quality, perceived value, and overall satisfaction, and future behavioral intention of medical tourists with end-anchors labeled "strongly agree" and "strongly disagree."

The demographic profiles of the respondents were gathered in the final section, section five, of the questionnaire with respect to respondents' gender, age, education level, occupation, nationality and country of residence. This information was gathered to fully understand the respondents' background, and to make comparisons and contrasts among sample groups.

Pilot Test

Content validity

After the development of the survey questionnaire, a validating study was conducted. Experts on medical tourism, such as, doctors, hospital managers, and previous medical tourists were sought in framing the content of survey questionnaire. The purpose of which was to gather the most relevant features of medical tourism.

First, questionnaire was reviewed by advisor and the panel members for comments and suggestions. The comments and suggestions of the panel members were the basis for the final draft that was submitted for validation. Again, experts in this field were sought for the items to be further included in the questionnaire. The responses and suggestions of the respondents in a pilot test became the basis for the re-formulation of the questionnaire.

Reliability

Reliability is the extent to which a variable or set of variables is consistent in what it is intended to measure (Hair, Back, Babin, Anderson, & Tatham 2006). Test of reliability was performed on the results of pre survey to ensure the reliability of the

survey instrument. The pilot test was conducted to test the validity and reliability of the study's instrument prior to data collection. After the final draft of the questionnaire was refined and validated, the researcher sought the letter of endorsement from the School of Hotel and Restaurants, and the Oklahoma State University Institutional Review Board. The letter of endorsement together with the researcher's letter was presented to the respondents. Instruction on how to complete the questionnaire was also provided.

Prior to the main survey, a pilot test was conducted to examine the validity and reliability of the instrument. The test of appropriateness and wording of items in each scale, the length of the instrument, and the format of the scales were also included. The questionnaire was tested by conducted a pilot test with 20 conveniently selected respondents at the hospital. The reliability of the scales was tested by calculating the coefficient alphas (Cronbach's alphas). The results indicate that the different constructs range from 0.74 – 0.90. The Cronbach's alphas of each construct are shown in table 3.3.

Table 3.3: Reliability of the Dimensions Measured with the Instrument

Dimensions	Cronbach's alpha
Motivation	0.81
Perceived Destination Image	0.74
Perceived Quality	0.83
Perceived Value	0.86
Overall Satisfaction	0.85
Word of Mouth	0.90
Repurchase Intention	0.79
Willingness to Pay More	0.78

Sampling

Target Population

The target population of the study was the international medical tourists travelling to Thailand seeking medical services in selected hospital in Bangkok, Chiang Mai, and Chonburi provinces in Thailand during July 2009 – March 2010. The destination selected was based on the literature review that Thailand is a major hub of medical tourism in Asia. The number of international visitors who used healthcare in Thailand was 1.2 million in the year 2005 and increased to 1.4 million in 2006, which was a 16.67 % increase. It was estimated that in 2007, there would be 11% increase (Kittikanya, 2006; Tourism Authority of Thailand, 2007). Thailand is able to attract such a large volume of patients as it is well-reputed as a tourist haven, with a variety of existing tourist attractions for recuperating patients, a relatively low cost of living, expat-friendly locals, and a respectable quality of health care (Teh & Chu, 2005). The country has approximately 336 private hospitals nationwide with 35,614 beds (Tourism Authority of Thailand, 2007). The study excluded business expatriates and foreign respondents who already resided in Thailand.

Sample and Sample Size

A convenience sampling was used. The questionnaires were distributed to international tourists who were traveling for medical purposes at the selected hospitals in Bangkok, Chiang Mai, and Chonburi in Thailand from July 2009 – March 2010.

Although there are no absolute standards in the literature about the relation between sample size and path model complexity, the following recommendations were offered: a desirable goal is to have the ratio of the number of cases to the number of free parameters be 20:1; a 10:1 however, maybe a more realistic target (Kline, 2005). Furthermore, Hair, Black, Babin, Anderson, and Tatham (2006) suggested five considerations affecting the required sample size for SEM as follows: 1) multivariate distribution of the data, 2) estimation technique, 3) model complexity, 4) amount of missing data, and 5) amount of average error variance among the reflective indicators (Hair et al., 2006). In addition, Hair et al. (2006) also suggested the sample size justification based on the model complexity and basic measurement model characteristics that when the number of factors is larger than six, some of which use fewer than three measured items as indicators, and multiple low communalities are present, sample size requirements may exceed 500 (Hair et al., 2006). However, Hair et al. (2006) also recommended that sample size of SEM ranged from 100 to 200. Furthermore, sample size should be large enough when compared with the number of estimated parameters (as a rule of thumb, at least 5 times the number of parameters), but with an absolute minimum of 50 respondents. In this study, there were 9 items of motivation, 3 items of perceived medical image, 10 items of perceived quality, 3 items of perceived value, 3 items of overall satisfaction, 2 items of word of mouth, 3 items of repeat visit, and 2 items of willingness to pay more. The total attribution of 35 items or 70 parameters. The expected number of sample size was at least 350 or more to meet the recommendation criteria.The sample size of this study was 376 which met the recommendation criteria.

Survey Administration

The survey questionnaire was distributed to international tourists who traveled to Thailand and received the medical treatment from July 2009 – March 2010. The self-administrated survey instrument attached with the envelope and paid postage returning to a correspondence person in Thailand was distributed to the medical tourists by the hospital or clinic staff in Bangkok, Chiang Mai, and Chonburi province following their medical treatments. The international patients at the hospitals were given and instructed to complete the mail-back questionnaire with a prepaid postage envelope during their hospital stay. The respondents were asked to return the completed questionnaire by dropping in a domestic postal box. Assistance was obtained from hospital staff if needed to aid respondents in filling out the survey. Because of the service nature of a health care experience, systematic feedback would ideally be gathered before the patient left the service encounter. This ensures information would be captured while it was still fresh in the patient's mind and, at the same time, it makes it possible to recover from a service failure if a problem with quality is discovered (Ford, Bach, & Fotter, 1997). The total of 1,500 questionnaire were distributed 413 were returned with 376 usable response, indicating 25.07 percent response rate.

Data Analysis

The data were sorted out and classified according to the objectives of the study. The following statistical methods were implemented in analyzing and evaluating the data gathered from the questionnaire survey.

1. Descriptive Statistics

Frequency Count and Percentages were used to describe the demographic profile of medical tourists and their medical travel characteristics. Respondent's demographic profiles were classified as gender (male and female), marital status (single, married, divorced/widowed/separated, and other), age (18 – 25, 26 – 35, 36 – 45, 46 – 55, 56 – 65, and above 65 years old), highest educational level (high school or below, associate college degree/high diploma, bachelor degree, post graduate education, professional certificate, and other), nationality, and country of residence.

In addition, respondent's travel characteristics were categorized into travel time (first time, 2 times, 3 times, and 4 times or more), primary purpose of visitation (pleasure/vacation, business/work, medical treatment, visit friends and relatives, convention/exhibition, and other), medical insurance coverage (in home country and in Thailand), source of information (advice of doctor/physician in home country, word of mouth from friends or relatives, medical tourism intermediary's website, website of hospital, online medical communities, medical tourism weblog, testimonies of previous patients, and other), decision time (1 – 4 week, 5 – 8 week, more than 8 weeks, and specify lengths), considered other countries (yes and no), medical treatment arrangement (directly with hospital, through medical travel intermediaries' website, and

other), travel companion (individual and with others), and travel plan besides medical treatment.

Weight Mean was also used to compute the average value obtained on the motivation, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, re-purchase intention, and willingness to pay more of international medical tourists on medical tourism and by each of the variables rated in the questionnaire. The obtained values will be interpreted using the 7-point Likert-type scale value.

2. Independent Sample T-Test

The t-test assesses the statistical significance of the difference between two independent sample means for a single dependent variable (Hair et al., 2006). According to Hair et al. (2006), the t statistic can be calculated by the following equation:

$$t\ statistic\ = \frac{\mu_1 - \mu_2}{\mathrm{SE}\mu_1\mu_2}$$

Where μ_1 = mean of group 1

μ_2 = mean of group 2

$\mathrm{SE}\mu_1\mu_2$ = standard error of the difference in group means

In this study, T-test was used to assess whether the means of the two groups of respondent's gender (male and female), frequent of visit (first time and repeat visit), purpose of visit (pleasure and others), and travel companion (individual and with others) were statistically different from each other on items of motivation, perceived destination

image, perceived quality, perceived value, overall satisfaction, word of mouth, re-purchase intention, and willingness to pay more.

3. Analysis of Variance (ANOVA)

ANOVA is statistical technique used to determine whether samples from two or more groups come from populations with equal means (Hair et al., 2006).
The ANOVA compared two independent estimates of the variance for the dependent variable. The first reflects the general variability of respondents within the groups (MS_W) and the second represents the differences between groups attribute to the treatment effects (MS_B). The ratio of MS_B to MS_W is a measure of how much variance is attributed to the different treatments versus the variance expected from random sampling (Hair et al., 2006). ANOVA can be calculated by the following equation:

$$F\ statistic = \frac{MS_B}{MS_W}$$

In this study, the one way ANOVA was used to determine the significant differences of respondent's age (18 – 35, 36 – 55, and above 55 years old) and items of motivation, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, re-purchase intention, and willingness to pay more.

4. Factor Analysis

Factor analysis is an interdependence technique whose primary purpose is to define the underlying structure among the variables in the analysis (Hair et al., 2006). Specifically, Exploratory Factor Analysis (EFA) was implemented to explore the data

and provided researcher with information about how many factors are needed to represent the data (Hair et al., 2006). In this study, EFA was used to reduce and categorize the determinants of motivational factors, perceived destination image, and perceived quality into smaller number. The results from EFA were as follows: Motivational factor – attraction, motivation, opportunity motivation, and value motivation; perceived destination image – medical image, accessibility image, and safety image; and perceived quality – medical staff quality, and additional service quality.

Additionally, Confirmatory Factor Analysis (CFA) was a way of testing how well measured variables (identified from EFA) represent a smaller number of constructs. CFA is used to provide a confirmatory test of measurement theory (Hair et al., 2006). In this study, CFA was employed in order to confirm the validity factor structures of the motivational factor – attraction motivation, opportunity motivation, and value motivation; perceived destination image – medical image, accessibility image, and safety image; and perceived quality – medical staff quality, and additional service quality which was derived from EFA combined to perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more.

5. Structural Equation Modeling (SEM)

Structural Equation Modeling is a multivariate technique combining aspects of factor analysis and multiple regression that enables the researcher to simultaneously examine a series of interrelated dependence relationship among the measure variables and latent constructs (variates) as well as between several latent constructs (Hair et al., 2006). The SEM six-stages procedures of Hair et al. (2006) will be applied to test the proposed model of the study. The six-stages are as follows: 1) defining individual

constructs, 2) developing the overall measurement model, 3) designing a study to produce empirical results, 4) assessing the measurement model validity, 5) specifying the structural model, and 6) assessing structural model validity (Hair et al., 2006).

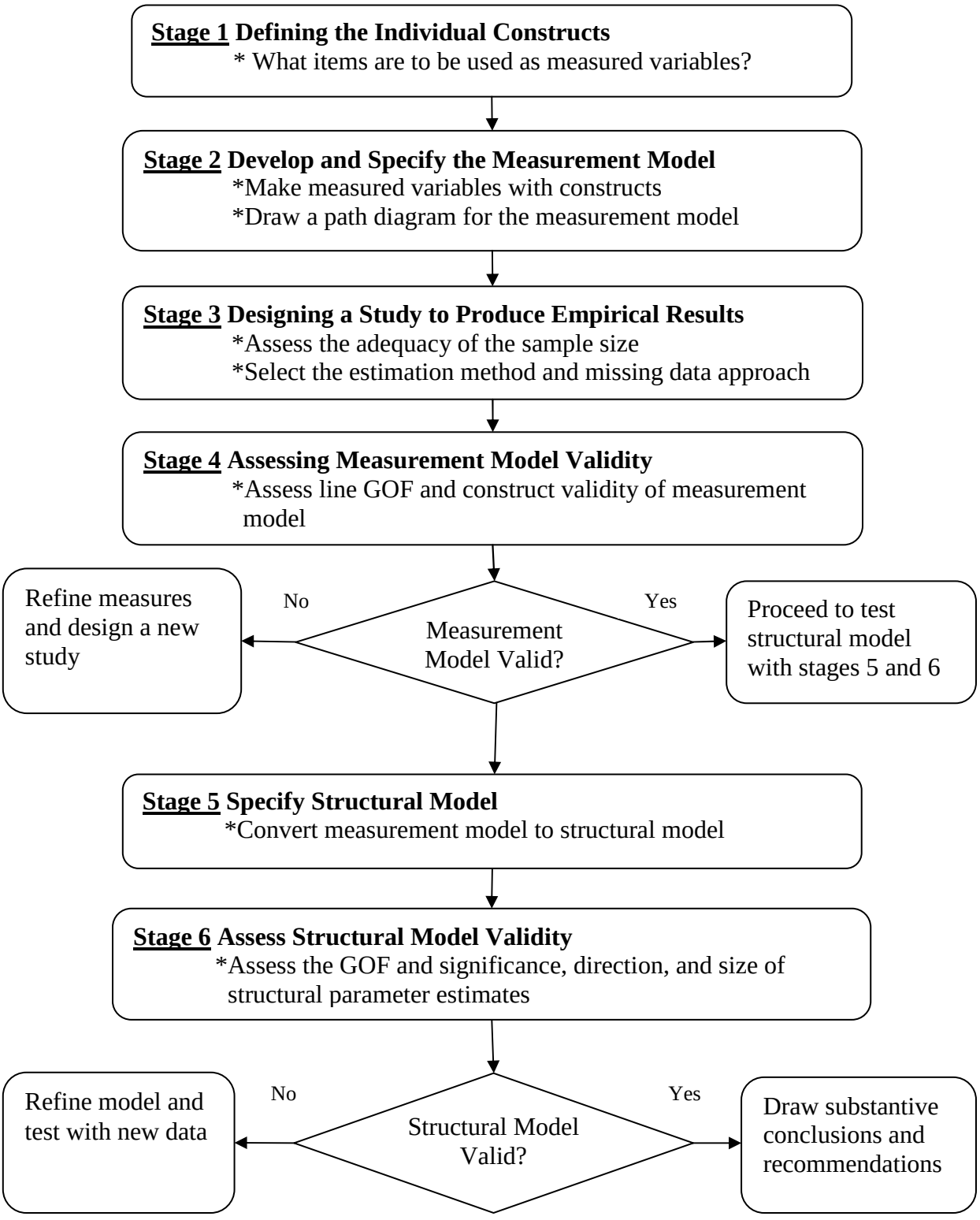


Figure 3.1: Six-Stage Process for Structural Equation Modeling
(Hair et al., 2006, p.759).

Stage 1: Defining Individual Constructs

The individual constructs were identified from previous literatures. Two types of constructs were specified as exogenous and endogenous constructs. Exogenous are the latent, multi-item equivalent of independent variables which determined by factors outside of the model where as endogenous constructs are the latent, multi-item equivalent to dependent variables and theoretically determined by factors within the model (Hair et al., 2006). In this study, the proposed model consisted of three exogenous variables including: attraction motivation (ξ_1), opportunity motivation (ξ_2), and benefit motivation (ξ_3). The proposed model also consisted of eight endogenous variables including: medical image (η_1), medical staff quality (η_2), supporting services quality (η_3), perceived value (η_4), overall satisfaction (η_5), word of mouth (η_6), repeat visit (η_7), and willingness to pay more (η_8).

Table 3.4: Exogenous and Endogenous constructs

Exogenous Constructs		Endogenous Constructs	
$\xi_1 \ldots \xi_n$	motivational factors 1 to n	η_1	medical image
		η_2	medical staff quality
		η_3	supporting services quality
		η_4	perceived value
		η_5	overall satisfaction
		η_6	word of mouth
		η_7	repeat visit
		η_8	willingness to pay more

Stage 2: Developing and Specifying the Measurement Model

In the second stage, the indicator variables (items) of each constructs were identified. In this study, for the three exogenous variables, tourism motivation (ξ_1) had four indicator variables, opportunity motivation (ξ_2) had three indicator variables, and benefit motivation (ξ_3) had two indicator variables. For the eight endogenous variables, medical image (η_1) had three indicator variables, medical staff quality (η_2) had five indicator variables, supporting services quality (η_3) had five indicator variables, perceived value (η_4) had three indicator variables, overall satisfaction (η_5) had three indicator variables, word of mouth (η_6) had two indicator variables, repeat visit (η_7) had three indicator variables, and willingness to pay more (η_8) had two indicator variables.

Stage 3: Designing a Study to Produce Empirical Results

Issues related to research design need to be finalized and decisions on type of data matrix to be used and estimation procedure need to be considered at this stage. Similar to most of the multivariate techniques, SEM makes similar assumptions about the independence of observation, the random sampling of respondents, and the linearity of all relations. The co-variance matrix has the advantage in providing valid comparisons between different populations. According to Hair et al. (2006), variance-covariance matrix is suitable if the purpose of the study is to perform a theory test and validate causal relationships of the constructs.

Stage 4: Assessing Measurement Model Validity

The confirmatory factor analysis (CFA) was conducted to assess the measurement model validity. The measurement model validity determined by goodness –of –fit (GOF) for the measurement model and specific evidence of construct validity. GOF indicates how well the specified model reproduces the co-variance matrix among the indicator items ((Hair et al., 2006).

Chi-square statistics (χ^2)

Goodness of Fit Index (GFI) measures how well a specified model reproduces the co-variance matrix among the indicator variables. The possible range of GFI values is 0 to 1 with the higher values indicating better fit. GFI values of greater than 0.90 typically were considered good.

Adjusted Goodness of Fit Index (AGFI)

AGFI does adjusting GFI by a ratio of the degrees of freedom used in a model to the total degrees of freedom available. AGFI take into account differing degrees of model complexity. The AGFI penalizes more complex models and favors those with a minimum number of free paths. AGFI values are typically lower than GFI values in portion of model complexity.

Normed Fit Index (NFI) is a ration of the difference in the χ^2 value for the fitted model and a null model divided by the χ^2 value for the null model. NFI ranges between 0 and 1. NFI of 1 indicated a model with perfect fit.

Comparative Fit Index (CFI) was derived from NFI in an effort to include model complexity in a fit measure. It is an incremental fit index that is an improved

version of NFI. The CFI is normed so that the values range between 0 and 1, with the higher values indicating better fit.

Root Means Square Residual (RMSR) is the square root of the mean of these squared residuals: an average of the residuals between individuals observed and estimated co-variance and variance terms. In addition to RMSR, the standardized root mean residual (SRMR) is a standardized value of RMSR and thus is more useful for comparing fit across models. The lower RMSR and SRMR values represent better fit and higher values represent worse fit.

Root Mean Square Error of Approximation (RMSEA) is the measure that attempts to correct for the tendency of the χ^2 GOF test statistics to reject models with a large samples or a large number of observed variables. RMSEA differs from RMSR in that it has a known distribution. Thus, it better represents how well a model fits a population, not just a sample used for estimation. Lower RMSEA values indicate better fit. The recommend RMSEA is between 0.03 and 0.08.

The measurement model was assessed by reviewing the overall model fit. In CFA, the overall model fit represents the degree to which the specified indicators represent the hypothesized latent construct.

Table 3.5: Fit indices guideline

Measures of fit	Fit guidelines
χ^2 and *p*-value	*p*-value > 0.05
GFI	≥ 0.9
AGFI	≥ 0.9
NFI	≥ 0.9
CFI	≥ 0.9
SRMR	< 0.05
RMSEA	< 0.05 to 0.08
χ^2/df	1 to 3

In this study, CFA were implemented to test thirteen constructs on the goodness of fit and validation of scales of the measurement. Model fit for the measurement model was acceptable.

Stage 5: Specifying the Structural Model

After the measurement model has been specified, the structural model must be specified in the next step. The relationship from one construct to another construct in the model was specified. This study had a total of 16 paths examined the causal relationship between constructs. All of the paths were hypotheses testing. Figure 3.2 indicated the path diagrams of measurement and structural model of all the constructs.

Stage 6: Assessing the Structural Model Validity

This stage is to test validity of the structural model and its corresponding hypothesized theoretical relationship. All constructs were earlier tested of validity from stage 4. In this stage, the hypotheses were tested, significant paths and directions were explained the phenomenon of finding.

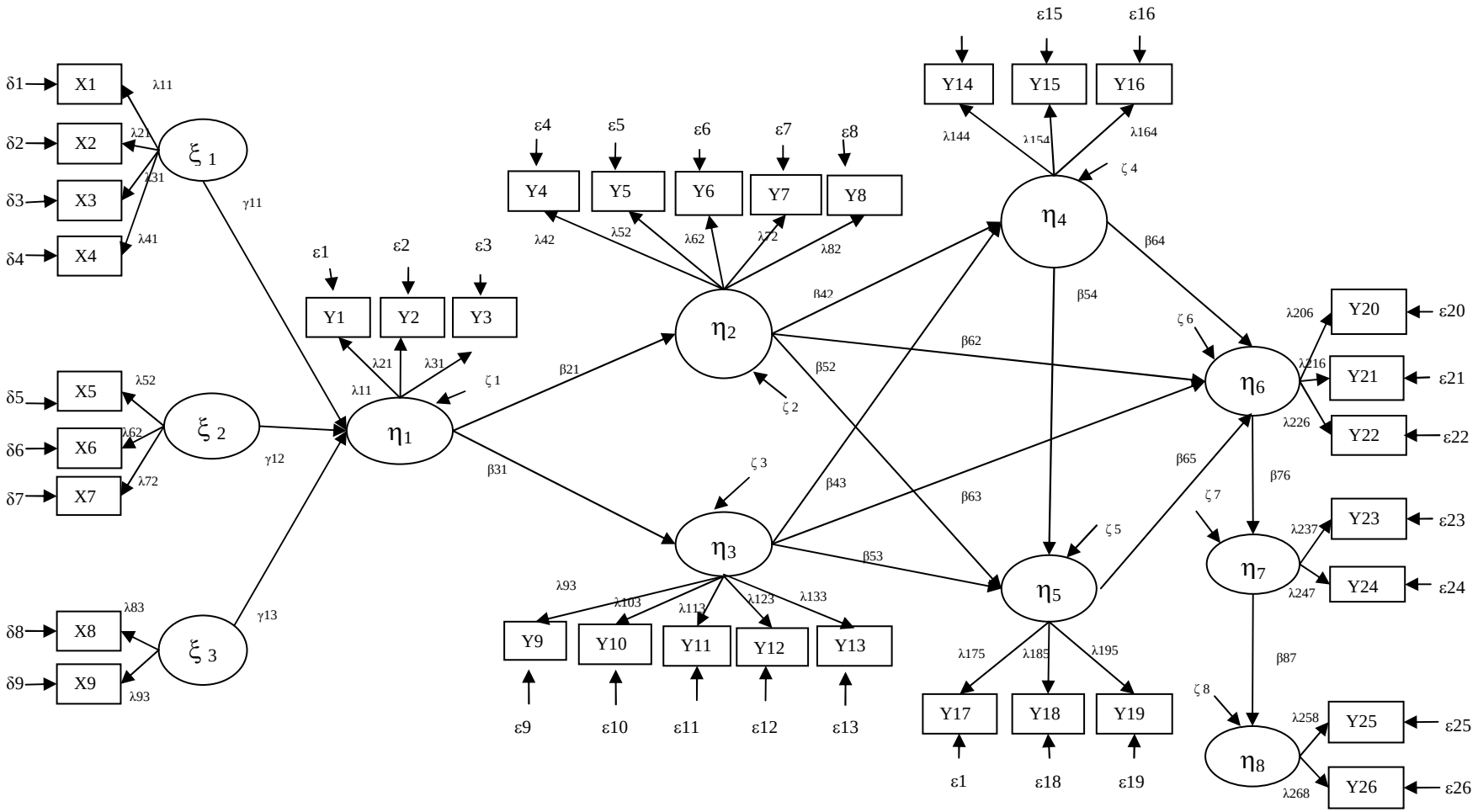
6. Hierarchical Multiple Regression

In this study, hierarchical multiple regression was used to test the moderator effect. Multiple regression analysis is a statistical technique that used to analyze the relationship between a single variable and several independent variables. Moderator effect is the effect in which a third independent variable causes the relationship between a dependent or independent variable pair to change, depending on the value of the

moderator variable. The significant of moderator effect is determined by a three-step process:

1. Estimate the original (unmoderated) equation
2. Estimate the moderated relationship (original equation plus moderator Variable), and
3. Assess the change in R^2: If it is significant, then a significant moderator effect is present (Hair et al.; 2005).

This study test the moderating effect of repeat visit on the relationship between motivation factors (attraction, opportunity, and benefit) on perceived medical image. The study also tested moderating effect of repeat visit on relationship of perceived quality (medical staff and supporting services) on perceived value. Finally, the moderating effect of repeat visit on the relationship between perceived quality (medical staff and supporting services) also included.



Legend

X1…n endogenous indicators
Y1…n exogenous indicators

ξ_1 Attraction motivation
ξ_2 Opportunity motivation
ξ_3 Benefit motivation
η_1 Medical image
η_2 Medical staff Quality
η_3 Supporting services quality
η_4 Perceived value
η_5 Overall satisfaction
η_6 Word of mouth
η_7 Repeat visit
η_8 Willingness to pay more

Figure 3.2: Path Diagram for Structural Model

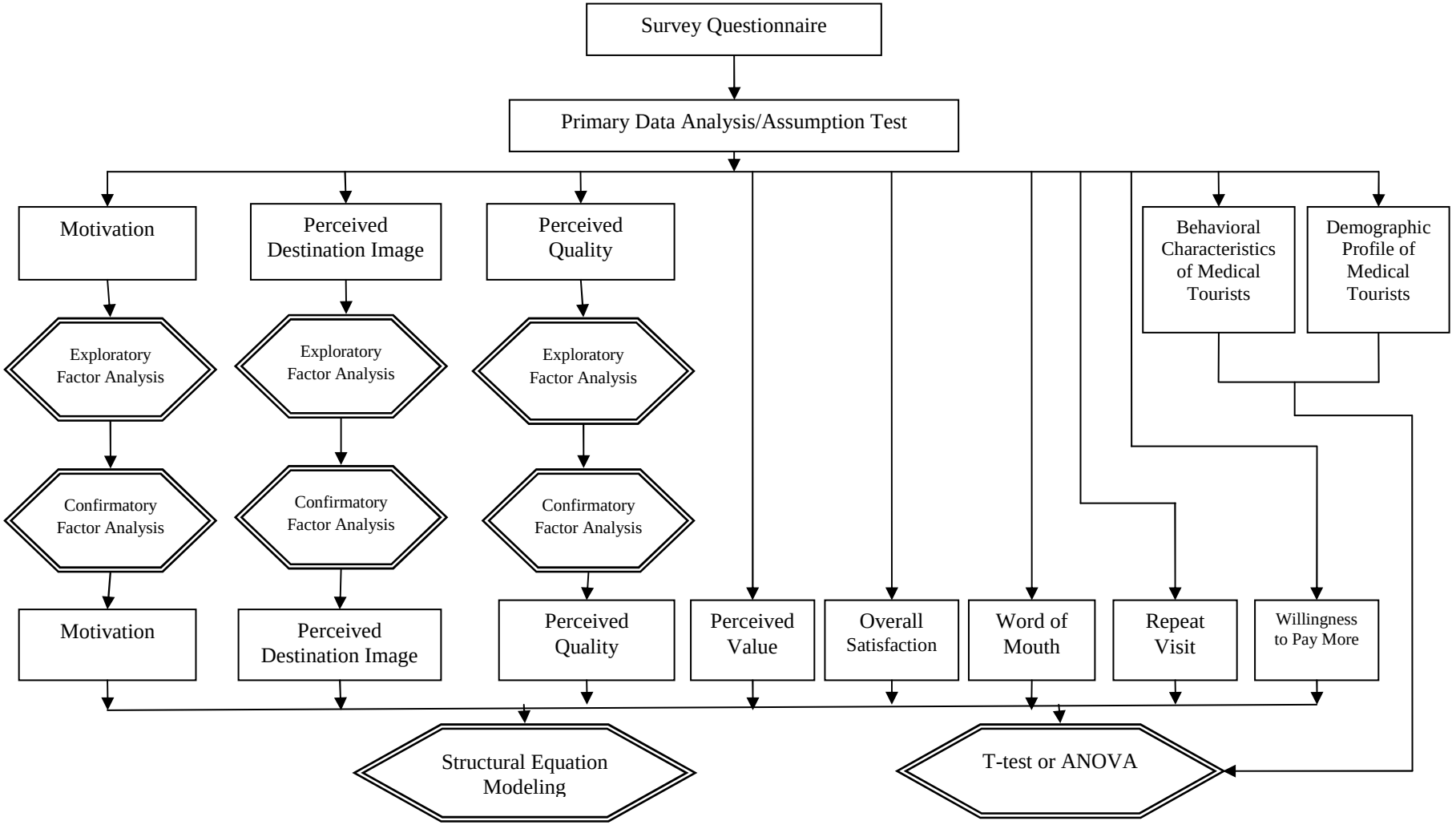


Figure 3.3: Research Framework

CHAPTER IV

FINDINGS

This chapter presents the results of the study and is divided into five sections. The first section reports the results and discussion of medical tourist demographic profiles and their medical travel behavioral. The second section presents the results of the exploratory and confirmatory factors analyses of the attributes measuring medical tourists' motivational factors, perceived destination image, and perceived quality. The third section presents the results on hypothesized model testing, model modification, and identification of the final model. The fourth section, presents the results of moderating effect of repeat visit. The last section summarizes the results of the comparisons of the different groups of medical tourists based on their demographic profiles and medical travel behaviors.

Medical Tourist Demographic Profile

Table 4.1 presented the demographic characteristics of the medical tourists. Approximately 55.3 percent of the medical tourists were male and 44.7 percent were female. The majority of medical tourists, or 46.8 percent, were single and 31.4 percent

were 26 – 35 years old. For the highest education attainment, 48.4 percent of them earned a bachelor degree. For occupation, 23.1 percent were self-employed, 14.1 percent were a teacher, instructor, or professor and 13.8 percent were a government official or military. For the nationality, 37.0 percent of medical tourists were American and Canadian, 36.4 percent were European and Scandinavian, 13.1 percent were Asian and Middle Easterner, and 10.6 percent were Australian and New Zealander. The majority of medical tourists were 39.1 percent from North America, 35.9 percent from Europe and Scandinavia, 11.7 percent from Asia and Middle East, and 10.6 percent from Oceania.

Table 4.1: Medical Tourists Demographic Profile

Profile	n	%
Gender		
Male	208	55.3
Female	168	44.7
Marital Status		
Single	176	46.8
Married	133	35.4
Divorced/Widowed/Separated	56	14.9
Others	6	1.6
Age		
18 – 25 years old	58	15.4
26 – 35 years old	118	31.4
36 – 45 years old	59	15.7
46 – 55 years old	65	17.3
56 – 65 years old	53	14.1
Above 65 years old	22	5.9
Non respond	1	0.3
Highest Educational Level		
High school or below	54	14.4
Associate college degree/High diploma (2 years)	48	12.8
Bachelor degree	182	48.4
Post graduate education	39	10.4
Professional certificate	46	12.2
Other	1	0.3
Non respond	6	1.6
Current Occupation		
Government Official/Military	52	13.8
Teacher/Instructor/Professor	53	14.1

Executive/Managerial positions	33	8.8
Clerical/Administrative/Secretarial	11	2.9
Professional/Technical positions	24	6.4
Production/Manufacturing	24	6.4
Self-employed	87	23.1
Retiree/Not in the workforce	45	12.0
Others	38	10.1
Non respond	9	2.4
Nationality		
American and Canadian	139	37.0
European and Scandinavian	137	36.4
Asian and Middle Easterner (Arab)	49	13.1
Australian and New Zealander	40	10.6
Spanish	5	1.3
Others (South African)	1	0.3
Non respond	5	1.3
Country of Resident		
North America	147	39.1
Europe and Scandinavia	135	35.9
Asia and Middle East	44	11.7
Oceania	40	10.6
Non respond	10	2.7

Table 4.2 presents the travel behavior of medical tourists. The majority of medical tourists or 57.7 percent had traveled to Thailand for first time. This number is similar to 57.7 percent of medical tourists who travel to Thailand with the primary purpose of pleasure or vacation. For medical service seeking, 58.5 percent of medical tourists seeking for dental surgery/treatment, 19.4 percent seeking for comprehensive medical checkup, and 10.6 percent seeking for cosmetic/plastic/reconstructive surgery. For insurance coverage, 60.4 percent have the insurance in their home country. The majority of medical tourists or 49.7 percent use Worth-of-mouth from friends or relatives as the major source of information. In terms of decision, 47.1 percent of medical tourists took 1 – 4 weeks to make decision and 85.6 percent did not considered other countries beside Thailand for this medical treatment. The majority of medical tourists or 71.0 percent arrange their medical treatment directly with the hospital. For the travel

companion, 46.5 percent of the medical tourists travel with spouse/family/friends/ relatives while 45.5 percent travel individually. Besides medical treatment, 63.6 percent of medical tourists planed to travel in Thailand during their trip.

Table 4.2: Medical Travel Behavior

Medical Travel Behavior	n	%
Travel Time		
First time	217	57.7
2 times	59	15.7
3 times	9	2.4
4 times or more	53	14.1
Non respond	38	10.1
Primary Purpose of Thailand Visitation		
Pleasure/vacation	217	57.7
Business work	61	16.2
Medical Treatment	21	5.6
Visit friend and relatives	58	15.4
Convention/exhibition	2	0.5
Other	15	4.0
Non respond	2	0.5
Medical Service Seeking (select more than one answer)		
Dental surgery/treatment	220	58.5
Cosmetic/plastic/reconstructive surgery	40	10.6
Sight treatment/Lasik	35	9.3
Heart surgery	12	3.2
Comprehensive medical checkup	73	19.4
Other	31	8.2
Medical Insurance Coverage		
In home country		
Yes	227	60.4
No	141	37.5
Non respond	8	2.1
In Thailand		
Yes	81	21.5
No	287	76.3
Non respond	8	2.1
Source of Information (ranking top 1 – 3)		
Worth-of-mouth from friends or relatives	187	49.7
Website of hospital in Thailand	71	18.9
Medical tourism intermediary's website	34	9.0
Decision Time		
1 – 4 weeks	177	47.1
5 – 8 weeks	85	22.6
More than 8 weeks	57	15.2
Specify lengths (spontaneous)	29	7.7

Considered other countries		
Yes	45	12.0
No	322	85.6
Other countries : USA, England, Singapore, Mexico, Malaysia		
Arrange Medical Treatment		
Directly with the hospital	267	71.0
Through medical travel intermediaries' websites	55	14.6
Other (friend, relatives)	45	12.0
Non respond	9	2.4
Travel Companion		
Individual	171	45.5
Spouse/family/relatives/friends	175	46.5
Other (co-worker)	9	2.4
Non respond	21	5.6
Travelling in Thailand besides medical treatment		
Yes	239	63.6
Type: Sightseeing, trekking		
Destination: Bangkok, Chiangmai, Phuket		
No	48	12.8
Reason: no time, work		

Motivational Dimension

Exploratory Factor Analysis (EFA) was performed in order to reduce and group the motivational factors, perceived risk, perceived destination image and perceived quality attribute to a smaller number of dimensions. Principal component analysis with Varimax rotation was used to reduce the 10 motivation factors, 15 perceived destination image and 20 perceived quality to a smaller number. The correlation matrix was first inspected to ensure that there were a sufficient number of correlations greater than 0.3 to justify the use of factor analysis. Bartlett's test of sphericity and the KMO-MSA were also used to determine whether sufficient correlations existed among the variables. Barlett's test of sphericity should be statistically significant (sig ≤ 0.05), and the KMO-MSA should have an index of between 0 and 1, with and index closer to 1 signifying that each variable is perfectly predicted without error by the other variables. As shown in

table 4.3, both the KMO-MSA and Bartlett's test of sphericity that the data were appropriate for factor analysis.

Hair et al. (2006) suggested that the number of factors to be extracted was based on eigenvalues, the percentage of variance explained, the item communalities, and the scree test. Factors with eigenvalues greater than or equal to 1.0 were considered to be significant. A factor loading of 0.35 or greater is appropriate (Hair et al., 2006), but for practical purposes a factor loading of 0.6 was used instead. In terms of the total variance explained 60% of the total variance is deemed to be acceptable for most social research.

As shown in table 4.3, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity indicate the appropriateness of using an exploratory factor analysis for the set of medical motivation attributes. The KMO-MSA was above 0.60 indicated that the data were suitable for factor analysis. The Bartlett's Test of Sphericity showed the value of 1359.44 at a significant level of 0.00, indicated that a nonzero correlation existed among variables.

Table 4.3: KMO-MSA and Bartlett's Test of Sphericity of Motivational Factor

Index	1st run (with all attributes)	2nd run
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	.81	0.79
Bartlett's Test of Sphericity		
Approximate Chi-Square	1855.51	1359.44
df	55	36
Sig.	0.00	0.00

Table 4.4 indicates the results of EFA for medical tourist motivation. The analysis found that motivation factors were grouped into three groups – attraction, opportunity, and value. These results indicated that some medical tourists were persuading to travel by

their push factor, especially opportunity and value motivation. On the other hand, the attraction group was motivated by both push and pull motivation. For the motivation of medical tourists, three factors were identified with 72.42 percent of total variance explained. The three factors namely: “Attraction,” “Opportunity,” and “Value.”

The first factor, “Attraction related” accounted for 26.96 percent of the total variance, with a reliability coefficient of 0.73. This factor consisted of four items: “opportunity to combine medical service with a vacation,” “great place for relaxation after medical treatment,” “variety of existing tourist attractions for recapturing patients,” and “reasonable price and significant amount of money saving.”

The second factor “Opportunity” captured 24.92 percent of the variance with a reliability coefficient of 0.81. It contained three items: “type of medical treatment that are not allowed in your country,” “type of medical treatment not covered by medical insurance in your country,” and “preference of privacy and confidentiality.”

The third factor, “Benefit” explained 20.54 percent of the total variance with reliability coefficient of 0.71. This factor contained two items: “shorter waiting time for medical services than in your country,” and “less expensive medical treatment than in your country.”

Table 4.4: Exploratory Factor Analysis Motivational Factor

Factor	Factor Loading			Communalities
Factor 1 Attraction	F1			
Opportunity to combine medical service with a vacation	.61			.61
Great place for relaxation after medical treatment	.84			.77
Variety of existing tourist attractions for recapturing patients	.84			.79
Reasonable price and significant amount of money saving	.68			.67
Factor 2 Opportunity		F2		
Type of medical treatments that are not allowed in your country		.87		.77
Type of medical treatments not covered by medical insurance in your country		.87		.79
Preference of privacy and confidentiality		.74		.63
Factor 3 Benefit			F3	
Shorter waiting time for medical service than in your country			.80	.73
Less expensive medical treatment than in your country			.86	.82
Eigenvalue	2.43	2.24	1.85	
Variance (%)	26.96	24.92	20.54	
Cumulative Variance(%)	26.96	51.88	72.42	
Cronbach's Alpha	0.73	0.80	0.71	

Destination Image Dimension

As shown in table 4.5, the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity indicate the appropriateness of using an EFA for the set of perceived destination image. The KMO-MSA was above 0.60 indicated that the data were suitable for factor analysis. The Bartlett's Test of Sphericity showed the value of 2532.20 at a significant level of 0.00, indicated that a nonzero correlation existed among variables.

Table 4.5: KMO-MSA and Bartlett's Test of Sphericity of Perceived Destination Image

Index	1st run (with all attributes)	2nd run
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	0.92	0.91
Bartlett's Test of Sphericity		
Approximate Chi-Square	3175.14	2532.20
df	105	66
Sig.	0.00	0.00

For perceived destination image, three factors were identified with 70.50 percent of total variance explained. The three factors namely; "Medical," "Accessibility," and "Safety" are shown in table 4.6. The first factor, "Medical" accounted for 32.26 percent of the total variance, with a reliability coefficient of 0.86. It included three items: "international hospital accreditation," "high standard level of medical facilities," and "high standard level of medical staff."

The second factor "Accessibility" explained 19.50 percent of the variance with a reliability coefficient of 0.83. This factor consisted of three items: "ease of accessibility from your country," "ease of travel arrangement," and "ease of visa and immigration procedures."

The third factor, "Safety" explained 18.74 percent of the total variance with reliability coefficient of 0.77. The three items included in this factor were "no language barriers in traveling in Thailand," "tourists safety from crime and terrorist attack," and "political stability."

Table 4.6: Exploratory Factor Analysis Perceived Destination Image

Factor	Factor Loading			Communalities
Factor 1 Medical	F1			
International hospital accreditation	.75			.73
High standard level of medical facilities	.86			.84
High standard level of medical staff	.84			.80
Factor 2 Accessibility		F2		
Ease of accessibility from your country		.82		.76
Ease of travel arrangement		.84		.84
Ease of visa and immigration procedures		.74		.67
Factor 3 Safety			F3	
No language barriers in traveling in Thailand			.74	.64
Tourists safety from crime and terrorist attack			.79	.73
Political stability			.81	.73
Eigenvalue	3.87	2.34	2.25	
Variance (%)	32.26	19.50	18.74	
Cumulative Variance(%)	32.26	51.76	70.50	
Cronbach's Alpha	0.86	0.83	0.77	

Perceived Quality Dimension

Table 4.7 revealed that the Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity indicate the appropriateness of using an EFA for the set of perceived quality. The KMO-MSA was 0.92 indicated that the data were suitable for factor analysis. The Bartlett's Test of Sphericity showed the value of 3983.34 at a significant level of 0.00, indicated that a nonzero correlation existed among variables.

Table 4.7: KMO-MSA and Bartlett's Test of Sphericity of Perceived Quality

Index	1st run (with all attributes)	2nd run
Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO)	0.93	0.92
Bartlett's Test of Sphericity		
Approximate Chi-Square	5182.78	3983.34
df	190	120
Sig.	0.00	0.00

For perceived quality, two factors were identified with 68.78 percent of total variance explained. The two factors namely; “Medical staff” and “Supporting services” were shown in table 4.8. The first factor, “Medical staff” account for 37.91 percent of the total variance, with a reliability coefficient of 0.92. It consisted of five items: “the physicians paid enough attention to my concerns in deciding on the medical procedure,” “the physicians adequately explained my condition, examination results and medical process,” “the physicians allowed me to ask many questions, enough to clarify everything,” “the medical staff has good communication skill,” and “medical staff was polite and friendly.”

The second factor “Supporting services” explained 30.86 percent of the variance with a reliability coefficient of 0.84. The five items included in this factor were “the hospital amenities were conveniently located,” “the hospital has a strong concern of patient safety,” “the hospital’s attention to patient’s privacy, confidentiality and disclosure,” “the hospital has acceptable protection against medical malpractice and liability,” and “package pricing with price transparency.”

Table 4.8: Exploratory Factor Analysis Perceive Quality

Factor	Factor Loading		Communalities
Factor 1 Medical staff	F1		
The physicians paid enough attention to my concerns in deciding on the medical procedure	.82		.76
The physicians adequately explained my condition, examination results and medical process	.84		.78
The physicians allowed me to ask many questions, enough to clarify everything	.88		.81
The medical staff has good communication skill	.84		.78
Medical staff was polite and friendly	.75		.66
Factor 2 Supporting services		F2	
The hospital amenities (cafeteria, public phone) were conveniently located		.76	.64
The hospital has a strong concern of patient safety		.73	.69
The hospital's attention to patient's privacy, confidentiality and disclosure		.78	.66
The hospital has acceptable protection against medical malpractice and liablity		.77	.61
Package pricing with price transparency		.65	.48
Eginvalue	3.79	3.09	
Variance (%)	37.91	30.86	
Cumulative Variance(%)	37.91	68.78	
Cronbach's Alpha	0.92	0.84	

Assessment of Measurement Model

An assessment of measurement model involves an evaluation of the relationship between the latent variables and their indicators (Hair et al, 2006; Diamantopoulos & Siguaw, 2000). The Confirmatory Factor Analysis (CFA) was conducted to assess the measurement model of the study. The total samples of 376 observations were used in the analysis. Finally, the total of 41 items were used in CFA with motivation (9 items), perceived destination image (9 items), perceived quality (10 items), perceived value (3 items), overall satisfaction (3 items), word of mouth (2 items), repeat visit (3 items), and willingness to pay more (2items). To assess the reliability of the measurement model the

overall model fit, squared multiple correlations (SMC), composite reliability (CR) and average variance extracted (AVE) for each construct were calculated.

The measurement model was assessed by reviewing the overall model fit. In CFA, the overall model fit represents the degree to which the specified indicators represent the hypothesized latent construct.

Table 4.9: Fit indices guideline

Measures of fit	Fit guidelines
χ^2 and *p*-value	*p*-value ≤ 0.05
GFI	≥ 0.9
AGFI	≥ 0.9
NFI	≥ 0.9
CFI	≥ 0.9
SRMR	< 0.05
RMSEA	< 0.05 to 0.08
χ^2/df	1 to 3

The model fit for the measurement model was indicated by the value of fit indices df = 701, χ^2 = 2855.07, GFI = 0.75, NFI = 0.96, CFI = 0.97, and RMSEA = 0.08. The SMC is the value representing the extent to which a measured variable's variance is explained by a latent factor and represent how well an item measures a construct (Hair et al., 2006). As presented in table 4.10, SMC ranged from 0.48 to 0.73 for the exogenous variables and 0.39 to 0.91 for the endogenous variables.

In order to assess the reliability of individual indicators, CR and AVE were also calculated by using the formula of

Composite Reliability (CR):

$$\rho c = \frac{(\sum \lambda^2)}{[(\sum \lambda^2)+\sum(\theta)]}$$

Average Variance Extracted (AVE):

$$\rho v = \frac{(\sum \lambda^2)}{[\sum \lambda^2+\sum(\theta)]}$$

where:

ρc = the composite reliability

ρv = the average variance extracted

λ = the indicator loadings

θ = the indicator error variances

$\sum$ = the summation of the indicators of the latent variable

The composite reliability of all exogenous and endogenous variables ranged from 0.77 to 0.96. The average variance extracted for each latent construct ranged from 0.54 to 0.88. Hence, the assessment of the measurement model suggested the validity and reliability of the operationalization of the latent variables to be acceptable.

Table 4.10: The results of Measurement model

Attributes	Std. loadings	SMC	Std. error	CR	AVE
Motivational					
Factor 1 Attraction (α = 0.726)				0.85	0.58
Opportunity to combine medical service with a vacation	0.79	0.62	0.44		
Great place for relaxation after medical treatment	0.75	0.56	0.38		
Variety of existing tourist attractions for recapturing patients	0.75	0.56	0.44		
Reasonable price and significant amount of money saving	0.75	0.56	0.44		
Factor 2 Opportunity (α = 0.803)				0.83	0.62
Type of medical treatments that are not allowed in your country	0.80	0.64	0.36		
Type of medical treatments not covered by medical insurance in your country	0.86	0.73	0.27		
Preference of privacy and confidentiality	0.70	0.48	0.52		
Factor 3 Benefit (α = 0.713)				0.77	0.62
Shorter waiting time for medical service than in your country	0.77	0.59	0.41		
Less expensive medical treatment than in your country	0.81	0.66	0.34		
Perceived Destination Image					
Factor 1 Medical (α = 0.864)				0.89	0.73
International hospital accreditation	0.81	0.65	0.35		
High standard level of medical facilities	0.90	0.80	0.20		
High standard level of medical staff	0.86	0.74	0.26		
Factor 2 Accessibility (α = 0.832)				0.87	0.70
Ease of accessibility from your country	0.82	0.67	0.33		
Ease of travel arrangement	0.93	0.87	0.13		
Ease of visa and immigration procedures	0.74	0.55	0.45		
Factor 3 Safety (α = 0.770)				0.80	0.58
No language barriers in traveling in Thailand	0.76	0.58	0.42		
Tourists safety from crime and terrorist attack	0.77	0.59	0.41		
Political stability	0.75	0.57	0.43		
Perceived Quality					
Factor 1 Medical staff **(**α = 0.920)				0.93	0.74
The Physicians paid enough attention to my concerns in deciding on the medical procedure	0.87	0.76	0.24		
The physicians adequately explained my condition, examination results and medical process	0.89	0.79	0.21		
The Physicians allowed me to ask many questions, enough to clarify everything	0.88	0.78	0.22		
The medical staff has good communication skill	0.87	0.76	0.24		
Medical staff was polite and friendly	0.78	0.61	0.39		
Factor 2 Supporting services (α = 0.838)				0.86	0.55
The hospital amenities (cafeteria, public phone) were conveniently located	0.76	0.58	0.42		
The hospital has a strong concern of patient safety	0.84	0.70	0.30		
The hospital's attention to patient's privacy, confidentiality and disclosure	0.79	0.62	0.38		

The hospital has acceptable protection against medical malpractice and liability	0.68	0.47	0.53		
Package pricing with price transparency	0.63	0.39	0.61		
Perceived Value (α = 0.937)				0.96	0.88
I received a quality medical treatment with a reasonable price	0.94	0.89	0.11		
This medical Treatment delivered superior value	0.93	0.86	0.14		
This medical treatment was a good value for money	0.94	0.88	0.12		
Overall Satisfaction (α = 0.907)				0.94	0.83
Overall, I was satisfied with my medical treatment in Thailand	0.91	0.82	0.18		
Overall, I was satisfied with my hospital services in Thailand	0.88	0.77	0.23		
Overall, I was satisfied with my medical trip to Thailand	0.95	0.89	0.11		
Word of Mouth (α = 0.847)				0.90	0.81
I would say positive things about this medical treatment in Thailand to my relatives and close friends	0.86	0.74	0.26		
I would be willing to recommend this medical treatment in Thailand to my relatives and close friends	0.94	0.89	0.11		
Repeat Visit (α = 0.900)				0.93	0.81
I will continue to use this hospital service in Thailand in the future	0.95	0.91	0.09		
I would be willing to do further medical treatment at this hospital in Thailand	0.94	0.89	0.11		
I would consider Thailand as my first choice for medical tourism	0.80	0.64	0.36		
Willingness to Pay More (α = 0.804)				0.85	0.74
I would continue to use this hospital service in Thailand even if the cost was higher than other destinations	0.94	0.89	0.11		
I would be willing to spend more money on the medical treatment in Thailand even if the price increased	0.77	0.59	0.41		

Table 4.11: PHI Matrix of the model

	1	2	3	4	5	6	7	8	9	10	11	12	13
1.MA	1.00												
2.MB	0.34	1.00											
3.MC	0.71	0.42	1.00										
4.DA	0.55	0.49	0.69	1.00									
5.DB	0.46	0.55	0.60	0.67	1.00								
6.DC	0.23	0.66	0.50	0.66	0.63	1.00							
7.PQA	0.40	0.32	0.75	0.70	0.51	0.49	1.00						
8.PQB	0.50	0.50	0.69	0.75	0.65	0.60	0.68	1.00					
9.PV	0.46	0.32	0.78	0.61	0.44	0.48	0.79	0.61	1.00				
10.OS	0.44	0.33	0.78	0.66	0.46	0.48	0.77	0.61	0.91	1.00			
11.WM	0.35	0.34	0.77	0.67	0.43	0.49	0.82	0.56	0.86	0.89	1.00		
12.REV	0.32	0.36	0.71	0.65	0.46	0.48	0.80	0.58	0.83	0.84	0.91	1.00	
13.WILL	0.22	0.48	0.47	0.53	0.37	0.51	0.60	0.49	0.57	0.58	0.65	0.76	1.00

N = 376, MA = Attraction, MB = Opportunity, MC = Benefit, DA = Medical image, DB = Accessibility image, DC = Safety image, PQA = Medical staff, PQB = Supporting services, PV = Perceived value, OS = Overall satisfaction, WM = Word of mouth, REV = Repeat visit, WILL = Willingness to pay more

Assessment of the Structural Model

The Structural Equation Modeling (SEM) was conducted to assess the structural model of the study. The total samples of 376 observations were used in the analysis. Finally, the total of 35 items were used in SEM with motivation (9 items), perceived medical image (3 items), perceived quality (10 items), perceived value (3 items), overall satisfaction (3 items), word of mouth (2 items), repeat visit (3 items), and willingness to pay more (2items). After the overall structural model was evaluated, the individual parameter estimates were examined. The hypotheses were tested by evaluating the relationships between the endogenous and exogenous variables. The structural model fit indices with df = 541, χ^2 = 2471.23, GFI = 0.74, NFI = 0.95, REMSEA = 0.09, CFI = 0.96, and REMSEA = 0.09. The total 10 hypotheses were tested and discussed as follows.

Hypothesis 1: The motivation factor positively influence international medical tourists' perceived destination image

This hypothesis posits that the motivational factors of international medical tourists positively influence their perceived destination image of medical destination. After data analysis, there are further three sub-hypotheses (H1a – H1c) that reflect the relationship between motivation factor (attraction, opportunity, and benefit) and perceived medical image. The structural path estimate reveals that motivation factor (benefit) did not have a significant positive influence on perceived medical image with $\gamma 1, 3 = 0.04$ (t = 0.58). However, motivation factor (attraction and opportunity) has a

significant influence on perceived medical image with $\gamma 1, 1 = 0.81$ ($t = 9.18$), $\gamma 1, 2 = 0.24$ ($t = 4.73$) respectively. Therefore, hypotheses H1a and H1b were supported.

These findings supported that motivation of medical tourists (attraction and opportunity) positively influence their perceived medical image of medical tourism destinations. Further benefit motivation also showed no positive influence on accessibility image. The results of supported hypotheses reveled that those medical tourists who motivated by the attraction was based on pull motivation of destination. Therefore the motivation of this group has the strongest positively influence perceived medical image. For the opportunity motivation, even though the group was motivated by push factor from themselves, the opportunity motivation also positively influence perceived medical image. On the other hand, the results of hypotheses that not supported can be implied that specific group of medical tourists who were motivated to travel for medical treatment by benefit (shorter waiting time or less expensive) might also perceived that medical treatment in other countries were inferior to their own countries. They might persuade to travel solely by the urgent need or expenses of the medical treatment and do not concern about the medical image. This in turn could further support the result that benefit also showed no positive influence of their perception on medical image.

Hypothesis 2: International medical tourists' perceived destination image positively influences their perceived quality of medical treatment.

Hypothesis 2 was hypothesized as the perceived destination image of international medical tourists positively influences their perceived quality of medical treatment. The

data analysis results in further two sub-hypotheses (H2a-H2b) of relationship between perceived medical image and perceived quality (medical staff, supporting services). The medical image were found to significantly influence perceived quality of medical staff and supporting services with $\beta 2, 1 = 0.78$ ($t = 15.26$), $\beta 3, 1 = 0.79$ ($t = 13.57$) respectively. Hence, hypotheses H2a and H2b were supported.

Hypothesis 3: International medical tourists' perceived quality positively influences their perceived value of medical treatment.

Hypothesis 3 was supported in both two sub-hypotheses (H3a-H3b) that international medical tourists' perceived quality (medical staff and supporting services) positively influence their perceived value of medical treatment. These two sub-hypotheses were supported with $\beta 4, 2 = 0.70$ ($t = 13.34$) and $\beta 4, 3 = 0.15$ ($t = 3.05$) respectively.

Both medical staff quality and additional services quality were found to positively influence the perceived value of medical tourists. These findings confirmed that the customer perceived quality has the strong effect on customer perceived value. Therefore, medical tourists who perceived that medical services have high quality were more likely to have high perceived value towards such medical services.

Hypothesis 4: International medical tourists' perceived quality positively influences their overall satisfaction of medical treatment

The result of hypothesis H4a was supported as international medical tourists' perceived quality (medical staff) positively influence their overall satisfaction of medical

treatment with β5, 2 = 0.11 (t = 2.15). However, hypothesis H4b was not supported as international medical tourists' perceived quality (supporting services) was found to has no significance influence on their overall satisfaction of medical treatment with β5,3 = 0.06 (t = 1.55).

Perceived quality of medical staff was found to positively influence medical tourists overall satisfaction. Conversely, perceived quality of supporting services has not positively influence medical tourists overall satisfaction. These results may be related to the unique nature of medical services which primarily concern is treatment of illness. The physicians and other medical staff were directly delivered the service quality and directly interact with the patients. Whereas, the additional services which can be classified as supporting factors and might not be the main focus of perceived medical quality. Therefore, it might not positively influence medical tourist satisfaction.

Hypothesis 5: International medical tourists' perceived quality positively influences their word of mouth recommendation of medical treatment

The results of hypothesis 5 were similar to those of hypothesis 4. Hypothesis H5a, international medical tourists' perceived quality (medical staff) was found to positively influence their word of mouth recommendation of medical treatment with β6, 2 0.34 (t = 6.99). In contrast to Hypothesis H5b, international medical tourists' perceived quality (supporting services) did not has a significant influence their word of mouth recommendation with β6, 3 = -0.05 (t = -1.25).

The findings indicated that perceived quality of medical staff was found to positively influence medical tourists' word of mouth. On the contrary, perceived quality

of supporting services was not positive influence word of mouth recommendation of medical tourists. Similar to the reason of hypothesis 4, the most important of medical treatment is physicians and medical staff who perform medical services. For example, diseases diagnosis skills, patients attention and consideration, communication skills were also essential of the medical staff quality. The perceived quality of supporting services was the subordinate factor as compare to medical staff quality. Again it was not positively influence word of mouth of medical tourists.

Hypothesis 6: International medical tourists' perceived value positively influences their overall satisfaction of medical treatment

Hypothesis 6 was supported as international medical tourists' perceived value positively influence their overall satisfaction of medical treatment with $\beta 5, 4 = 0.79$ ($t = 15.07$). The findings implied that medical tourists who have high level of perceived value of medical treatment were more likely to have high level of satisfaction on medical treatment, hospital services, and medical trip as well.

Hypothesis 7: International medical tourists' perceived value positively influences their word of mouth recommendation of medical treatment

Hypothesis 7 was supported as international medical tourists' perceived value positively influence their word of mouth recommendation of medical treatment. This hypothesis was supported with standardized coefficients for path between perceived value and word of mouth $\beta 6, 4 = 0.16$ ($t = 2.01$). The result of this hypothesis further revealed that medical tourists who perceived that the medical treatments they obtained

was delivered with superior value, reasonable price, and good value of money were likely to recommend such treatments to other people. As they perceived the value in the medical treatments, they were willing to say positive things and recommend to relatives or close friends.

Hypothesis 8: International medical tourists' overall satisfaction positively influences their word of mouth recommendation

Hypothesis 8 was also supported as international medical tourists' overall satisfaction positively influences their word of mouth recommendation of medical treatment. This hypothesis was supported with standardized coefficients for path between perceived value and word of mouth $\beta 6, 5 = 0.50$ ($t = 6.20$).

Similar to perceived value, medical tourists who satisfied with medical treatment, hospital services, and medical trip were likely to share their positive experience by saying positive things and recommending it to other people. Therefore, medical tourists' overall satisfaction was significantly influence their word of mouth recommendation.

Hypothesis 9: International medical tourists' word of mouth recommendation positively influences their repeat visit

Hypothesis 9, International medical tourists' word of mouth recommendation positively influences their repeat visit was supported with $\beta 7, 6 = 0.92$ ($t = 23.27$). The finding signified that once medical tourists recommend the medical services to other people, they themselves also willing revisit such medical services if obligatory. The

repeat visit can be in the type of continue using or obtain further treatment at the same hospital.

Hypothesis 10: International medical tourist repeat visit positively influences their willingness to pay more

Hypothesis 10, International medical tourists' repeat visitation positively influence their willingness to pay more was supported with β8, 7 = 0.74 (t = 18.05). This finding implied that the repeat visitation in terms of continue using or obtain further treatment at the same hospital, and consider the destination as the first choice for medical tourism. Positively influence their consideration to continue using the hospital even if the price had increased and higher than other destination.

The summary of hypotheses testing and structural path estimates was reported in table 4.12.

Table 4.12: Structural Path Estimates

Path Coefficients		Standard-ized Loading	*t*-value	Hypotheses
The motivation factors positively influence international medical tourists' perceived destination image				H1
Attraction ⟶ Medical image	$\gamma_{1,1}$	0.81	9.18*	H1a: supported
Opportunity ⟶ Medical image	$\gamma_{1,2}$	0.24	4.73*	H1b: supported
Benefit ⟶ Medical image	$\gamma_{1,3}$	0.04	0.58	H1c: not supported
International medical tourists' perceived destination image positively influences their perceived quality of medical treatment				H2
Medical image ⟶ Medical staff quality	$\beta_{2,1}$	0.78	15.26*	H2a: supported
Medical image ⟶ Supporting service quality	$\beta_{3,1}$	0.79	13.57*	H2b: supported
International medical tourists' perceived quality positively influences their perceived value of medical treatment				H3
Medical staff quality ⟶ Perceived value	$\beta_{4,2}$	0.70	13.34*	H3a: supported
Supporting service quality ⟶ Perceived value	$\beta_{4,3}$	0.15	3.05*	H3b: supported
International medical tourists' perceived quality positively influences their overall satisfaction of medical treatment				H4
Medical staff quality ⟶ Overall satisfaction	$\beta_{5,2}$	0.11	2.15*	H4a: supported
Supporting service quality ⟶ Overall satisfaction	$\beta_{5,3}$	0.06	1.55	H4b: not supported
International medical tourists' perceived quality positively influences their word of mouth recommendation of medical treatment				H5
Medical staff quality ⟶ Word of mouth	$\beta_{6,2}$	0.34	6.99*	H5a: supported
Supporting service quality ⟶ Word of mouth	$\beta_{6,3}$	-0.05	-1.25	H5b: not supported
International medical tourists' perceived value positively influences their overall satisfaction of medical treatment				H6:
Perceived value ⟶ Overall satisfaction	$\beta_{5,4}$	0.79	15.07*	H6: supported
International medical tourists' perceived value positively influences their word of mouth recommendation of medical treatment				H7:
Perceived value ⟶ Word of mouth	$\beta_{6,4}$	0.16	2.01*	H7: supported
International medical tourists' overall satisfaction positively influences their word of mouth recommendation				H8:
Overall satisfaction ⟶ Word of mouth	$\beta_{6,5}$	0.50	6.20*	H8: supported
International medical tourists' word of mouth recommendation positively influences their repeat visit				H9
Word of mouth ⟶ Repeat Visit	$\beta_{7,6}$	0.92	23.27*	H9: supported
International medical tourists' repeat visits positively influences their willingness to Pay more				H10
Repeat Visit ⟶ Willingness to Pay More	$\beta_{8,7}$	0.74	18.05*	H10: supported

Model Modification

The initial model was modified to improve the model fit. Each modification involved the additional of one or more path as suggested by the modification indices. Table 4.13 provided the fit statistics for the initial and alternative model.

Based on the structural model and fit indices, Model 1 was the initial model proposed in this study. Model 2 had the additional path from "overall satisfaction" to "revisit intention." The newly added path led to an increase in χ^2/df. The fit indices remained the same as Model 1. Model 3 included the additional path from "overall satisfaction" to "willingness to pay more." This specific path however was led to an increase in SRMR and showed no improvement in fit indices. Model 4 the addition path of "overall satisfaction" to "revisit intention." Again the newly added paths showed no improvement in fit indices.

In summary, all alternative models did not provided substantial improvement in the model fit over the initial model. As a result, the initial model was retained based on the fit indices.

Table 4.13: Fit statistics for the structural models

Model	χ^2	df	χ^2/df	RMSEA	SRMR	CFI	IFI	NFI	RFI
M1	2471.23	541	4.57	0.09	0.08	0.96	0.96	0.95	0.95
M2	2515.33	542	4.64	0.09	0.08	0.96	0.96	0.95	0.95
M3	2514.32	542	4.64	0.09	0.09	0.96	0.96	0.95	0.95
M4	2511.08	541	4.64	0.09	0.09	0.96	0.96	0.95	0.95

Note: M1 = Initial model
M2 = Initial model plus a path from "overall satisfaction" to "revisit intention"
M3 = Initial model plus a path from "overall satisfaction" to "willingness to pay more"
M4 = Initial model plus paths from "overall satisfaction" to "revisit intention" and "overall satisfaction" to "willingness to pay more"

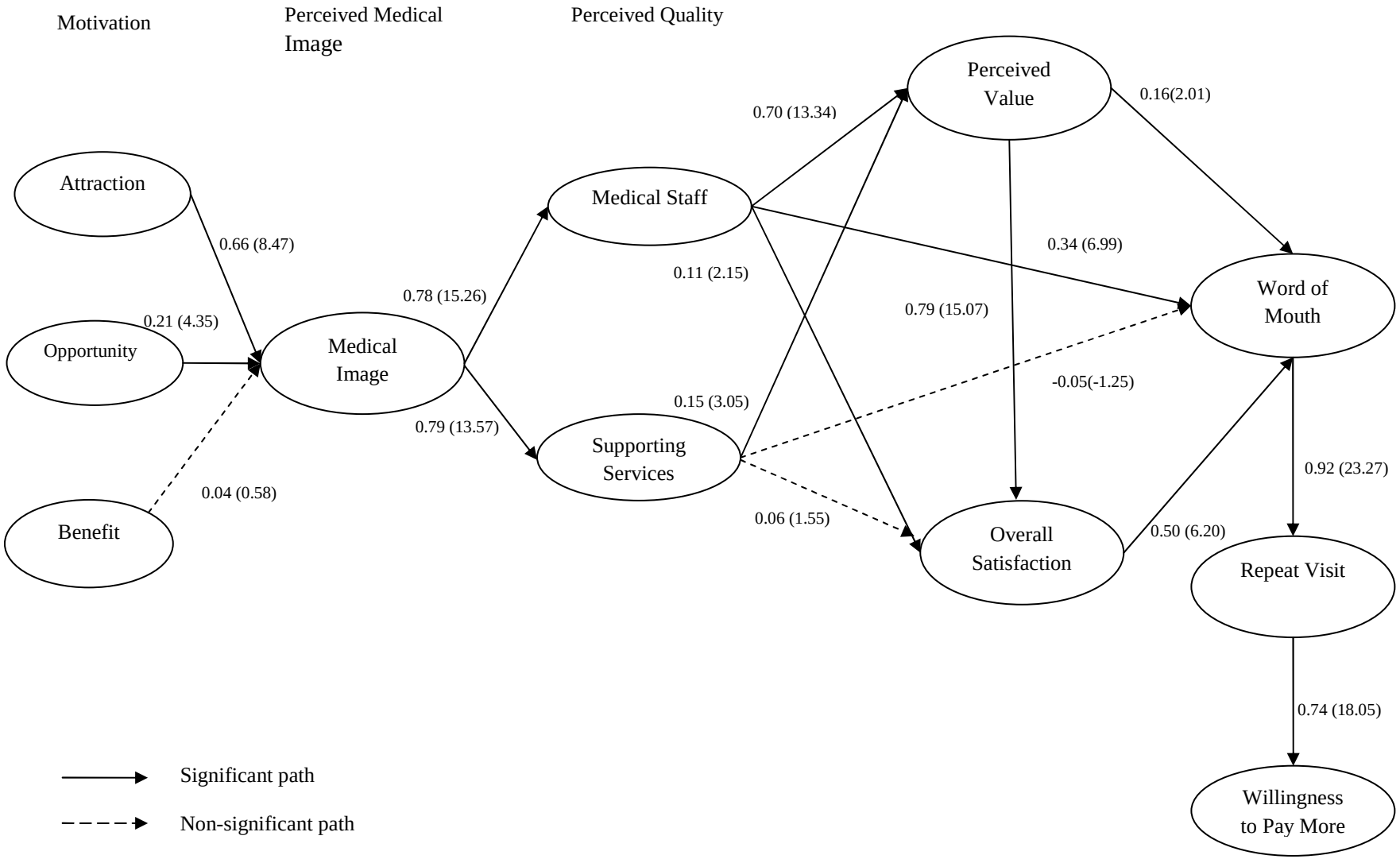


Figure 4.1: Structural Model of International Medical Tourists Motivational Behavior and Perception

Moderating Effect of Frequent Visit

The Relationship between Motivation and Medical Image

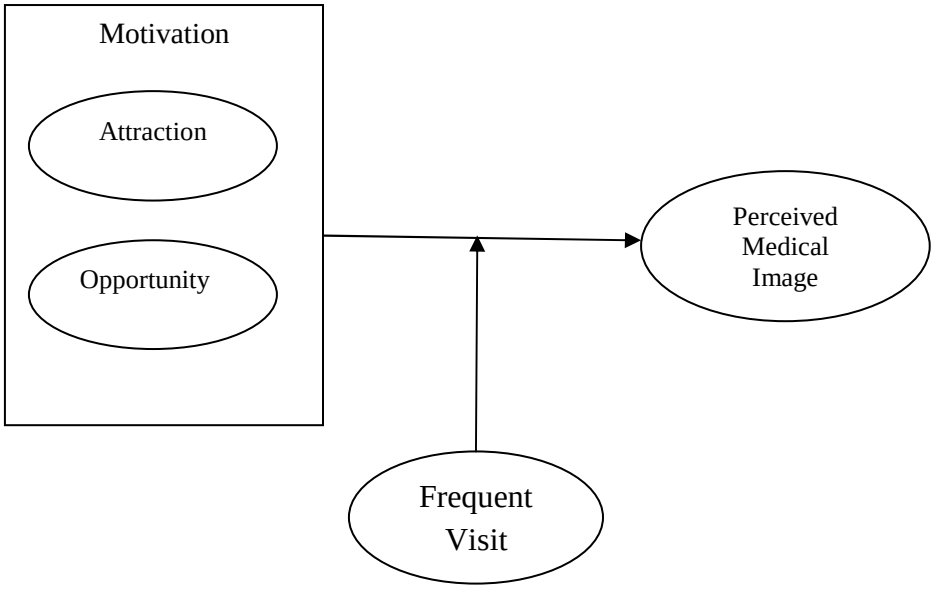


Figure 4.2: Moderating role of Frequent Visit on Motivation and Perceived Medical Image

In moderating effect testing, only the cases that respondents completed answering these item questions were selected for the investigation. Therefore, there are only 338 samples remaining. The frequent visit is categorized into first time visitor (N=217) and repeat visitor (N=121). Because the samples sizes of the two groups were largely different (217 versus 121), a series of hierarchical regression analyses was implemented to indentify the moderating effect of frequent visit. The dummy code is adopted for

frequent visit variable. The first time traveling to Thailand was recoded as “0” and the repeat visitor was recoded as “1.”

The motivation variable is measured by using the mean of each motivation (attraction and opportunity). The interaction effect variable is calculated by multiplying the motivation variable and frequent visit variable. The dependent variable, perceived medical image, was measured by the mean of perceived medical image. The main effects – motivation (attraction and opportunity) and frequent visit were entered as the first block, followed by the interaction terms (motivation*frequent visit) as the second block.

The perceived quality is also measured by using the mean of each quality (medical staff and supporting services). The interaction effect variable is calculated by multiplying the perceived quality variable and frequent visit variable. The dependent variable, perceived value, was measured by the mean of perceived value. The main effects – perceived quality (medical staff and supporting services) and frequent visit were entered as the first block, followed by the interaction terms (medical staff*frequent visit, supporting services*frequent visit) as the second block.

The perceived quality is also measured by using the mean of each quality (medical staff and supporting services). The interaction effect variable is calculated by multiplying the perceived quality variable and frequent visit variable. The dependent variable, overall satisfaction, was measured by the mean of overall satisfaction. The main effects – perceived quality (medical staff and supporting services) and frequent visit were entered as the first block, followed by the interaction terms (medical staff*frequent visit) as the second block.

The R^2 difference between the models with-and without-moderating effect variables show the moderating effect significance.

The Relationship between Motivation and Medical Image

H11a and H11b proposed the moderating role of frequent visit on the effect of motivation (attraction and opportunity) on medical image of medical tourists. Model 1 indicated the main effects of tourism motivation, opportunity motivation, value motivation, and familiarity with destination. Similarity, Model 2 applied the same main effect from model 1 including with the moderating effect of these three motivations and familiarity with destination. The results showed no significant interaction between motivation and familiarity as a determinant of medical image, thus, H11a and H11b were not supported. Since there is no interaction effect between frequent visit and tourism motivation on medical image, only direct effects of independent variables were taking into the consideration. For the direct effect of independent variables, there is also no significant influence of frequent visit on medical image (b = 0.05, *t*-value = 0.79, $p > 0.05$). Only the motivation has an impact on medical image (H11a: b = 0.50, *t*-value = 11.11, $p = 0.001$; H11b: b = 0.26, *t*-value = 5.67, $p = 0.001$). Table 4.14 indicated the results that medical tourist's frequent visit with has no moderating role on the relationship between motivation (attraction and opportunity) and perceived medical image.

Table 4.14: Moderating Effect of Familiarity on the Relationship between Motivation and Medical Image

Variables	Medical Image				Hypothesis
	Model 1		Model 2		
	b	*t*-value	b	*t*-value	
Constant		4.34**		3.97**	
Main Effect					
Attraction	0.50	11.11***	0.46	8.23***	
Opportunity	0.26	5.67***	0.29	5.39***	
Frequent Visit	0.05	0.79	-0.12	-0.44	
Moderating Effect					
Attraction*Frequent Visit			0.37	1.40	H11a: not supported
Opportunity*Frequent Visit			-0.22	-1.05	H11b: not supported
$\boldsymbol{R^2}$	0.39		0.40		
F-Model	73.53***		44.63***		
Δ $\boldsymbol{R^2}$			0.01		
Δ **F-Model**			1.17		

*$p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

The Relationship between Perceived Quality and Perceived Value

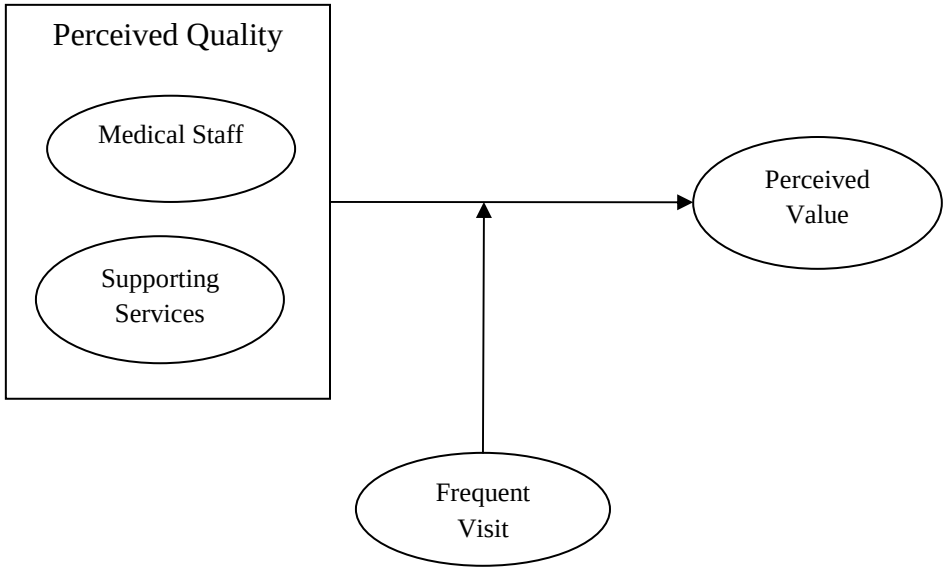


Figure 4.3: Moderating role of Frequent Visit on Perceived Quality and Perceived Value

H12a, b proposed the moderating role of frequent Visit on the effect of perceived quality (medical staff, and supporting services) on perceived value of medical tourists. From table 4.15, Model 1 indicated the main effects of medical staff, supporting services, and frequent visit. Similarity, Model 2 applied the same main effect from model 1 including with the moderating effect of these two perceived quality and frequent visit. The results showed a statistical significance on the moderating effect of frequent visit on the relationship between medical staff and perceived value (b= 0.35 *t*-value = 2.31 *p* = 0.01). Further, the results also indicated that there is a statistical significance on the moderating effect of frequent visit on the relationship between supporting services and perceived value (b= -0.63 *t*-value = -2.68*p* = 0.001). This supported H12a, b that there is

a moderating effect of frequent visit on the relationship between perceived quality and perceived value.

Table 4.15: Moderating Effect of Frequent Visit on the Relationship between Perceived Quality and Perceived Value

Variables	Perceived Value				Hypothesis
	Model 1		Model 2		
	b	*t*-value	b	*t*-value	
Constant		5.35***		3.50**	
Main Effect					
Medical Staff	0.64	13.95***	0.64	14.04***	
Supporting Services	0.16	3.50***	0.21	4.11***	
Frequent Visit	0.02	0.62	0.30	1.30	
Moderating Effect					
Medical Staff* Frequent Visit			0.35	2.31*	H12a: supported
Supporting Services* Frequent Visit			-0.63	-2.68**	H12b: supported
$\boldsymbol{R^2}$	0.56		0.57		
F-Model	142.44***		89.26***		
$\Delta\ \boldsymbol{R^2}$			0.01		
Δ **F-Model**			4.73		

*$p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

From the Model 1 and Model 2, the significant moderating effect of perceived quality and frequent visit was further examined by using graph in figure 4.4. Simple slope analysis was used to identify the moderating effect of frequent visit on the relationship between medical staff quality and perceived value. The results indicated that medical staff quality is more strongly associated with perceived value for the repeat visitors than the first time visitors.

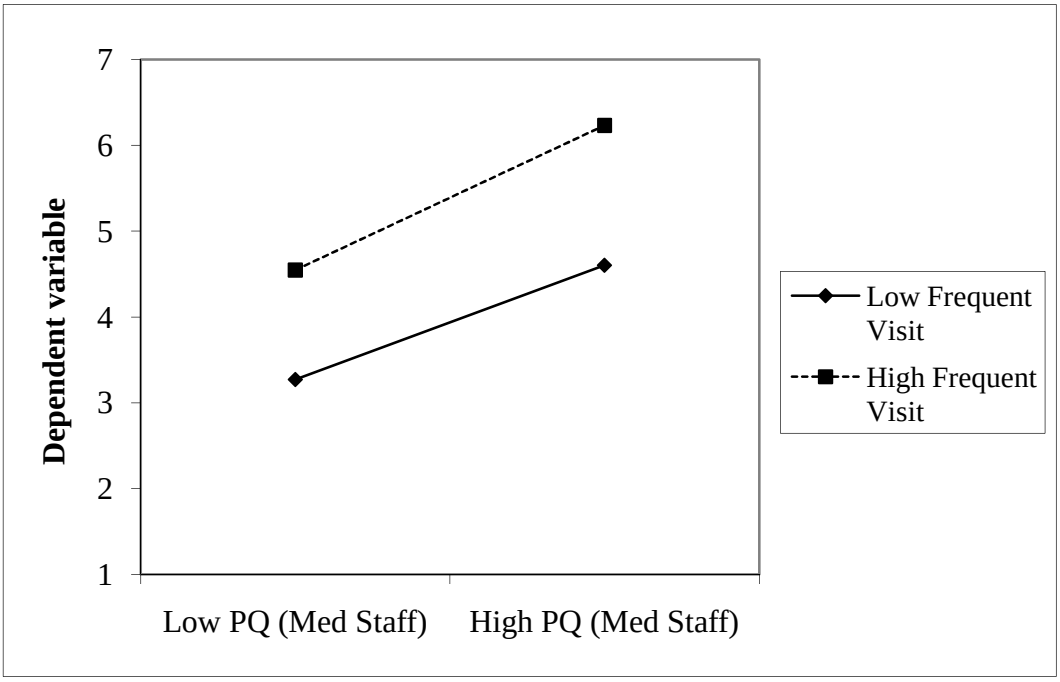


Figure 4.4 Moderating Effect of Frequent Visit on the Relationship between Medical Staff and Perceived Value

Results of the significant moderating effect of perceived quality and frequent visit was further examined by using graph in figure 4.5. Simple slope analysis was used to identify the moderating effect of frequent visit on the relationship between supporting services quality and perceived value. The results indicated that supporting services quality is more strongly associated with perceived value for the first time visitors than the repeat visitors.

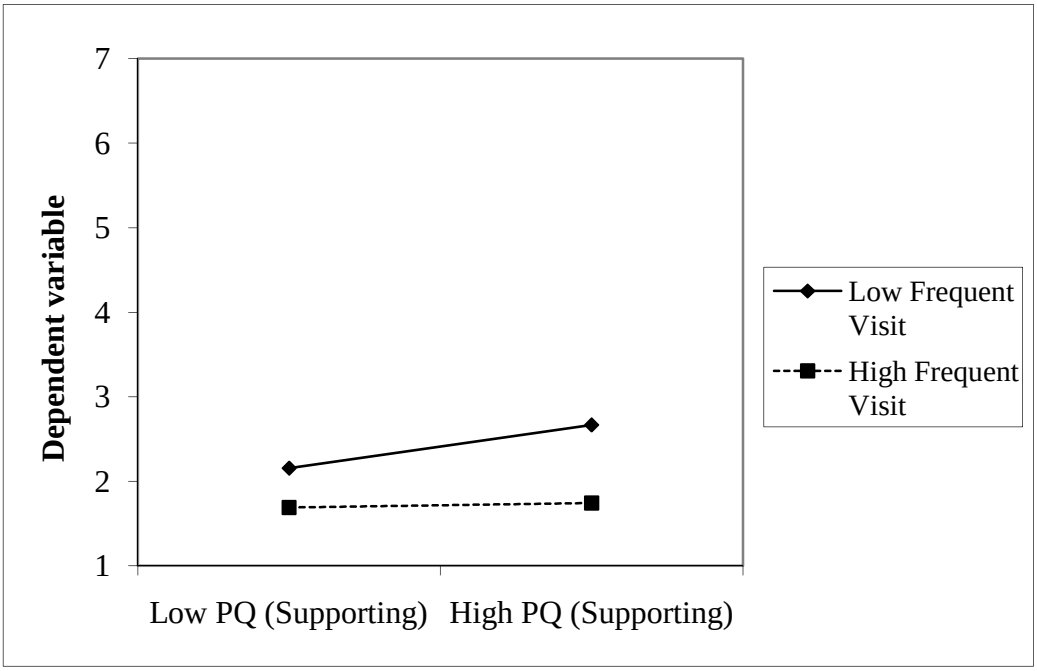


Figure 4.5: Moderating Effect of Frequent Visit on the Relationship between Supporting Services and Perceived Value

The Relationship between Perceived Medical Staff Quality and Overall Satisfaction

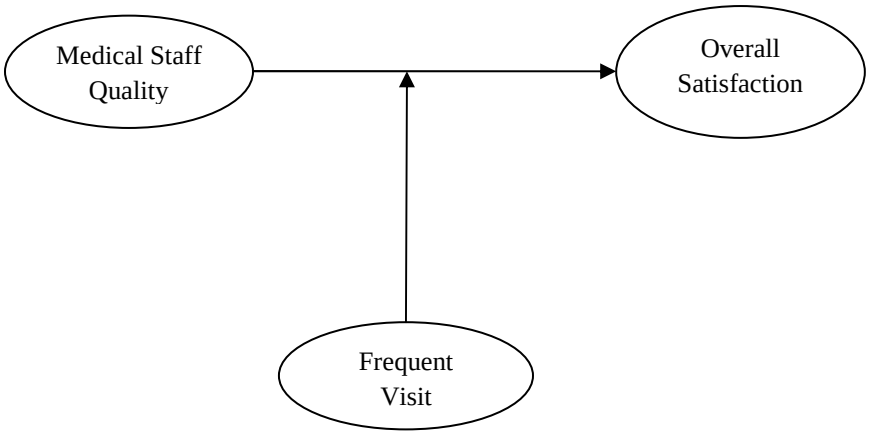


Figure 4.6: Moderating role of Frequent Visit on Perceived Medical Staff Quality and Satisfaction

H13 proposed the moderating role of frequent visit on the effect of perceived medical staff quality on overall satisfaction of medical tourists. Model 1 indicated the main effects of perceived medical staff quality and frequent visit. Similarity, model 2 applied the same main effect from model 1 including with the moderating effect of perceived medical staff quality and frequent visit.

However, there was no statistically significant on the moderating effect of familiarity on the relationship between perceived medical staff quality and overall satisfaction; which did not support H13: there is a moderating effect of frequent visit on the relationship between perceived medical staff quality and overall satisfaction. The results indicated in table 4.16.

Table 4.16: Moderating Effect of Frequent Visit on the Relationship between Perceived Medical Staff Quality and Overall Satisfaction

Variables	Overall Satisfaction				Hypothesis
	Model 1		Model 2		
	b	*t*-value	b	*t*-value	
Constant		9.93***		10.05***	
Main Effect					
Medical Staff	0.71	18.54***	0.71	18.17***	
Frequent Visit	-0.41	-1.08	-0.25	-1.65	
Moderating Effect					
Medical Staff* Frequent Visit			0.26	1.42	H13: not supported
$\boldsymbol{R^2}$	0.51		0.51		
F-Model	172.14***		115.78***		
Δ $\boldsymbol{R^2}$			0.01		
Δ **F-Model**			2.01		

*$p \leq 0.05$, ** $p \leq 0.01$, *** $p \leq 0.001$

In conclusion, the results of hypotheses testing of this study were summarized in table 4.17: as follows:

Table 4.17: Hypothesis Testing Results

Hypothesis	Results
H1: The motivation factors positively influence international medical tourists' perceived destination image	H1
Attraction ⟶ Medical image	H1a: supported
Opportunity ⟶ Medical image	H1b: supported
Benefit ⟶ Medical image	H1c: supported
H2: International medical tourists' perceived destination image positively influences their perceived quality of medical treatment	H2
Medical image ⟶ Medical staff quality	H2a: supported
Medical image ⟶ Supporting service quality	H2b: supported
H3: International medical tourists' perceived quality positively influences their perceived value of medical treatment	H3
Medical staff quality ⟶ Perceived value	H3a: supported
Supporting service quality ⟶ Perceived value	H3b: supported
H4: International medical tourists' perceived quality positively influences their overall satisfaction of medical treatment	H4
Medical staff quality ⟶ Overall satisfaction	H4a: supported
Supporting service quality⟶ Overall satisfaction	H4b: not supported
H5: International medical tourists' perceived quality positively influences their word of mouth recommendation of medical treatment	H5
Medical staff quality ⟶ Word of mouth	H5a: supported
Supporting service quality ⟶ Word of mouth	H5b: not supported
H6: International medical tourists' perceived value positively influences their overall satisfaction of medical treatment	H6
Perceived value ⟶ Overall satisfaction	H6: supported
H7: International medical tourists' perceived value positively influences their word of mouth recommendation of medical treatment	H7
Perceived value ⟶ Word of mouth	H7: supported

H8: International medical tourists' overall satisfaction positively influences their word of mouth recommendation Overall satisfaction ⟶ Word of mouth	H8 H8: supported
H9: International medical tourists' word of mouth recommendation positively influences their repeat visit Word of mouth ⟶ Repeat Visit	H9 H9: supported
H10: International medical tourists' repeat visits positively influences their willingness to pay more Repeat Visit ⟶ Willingness to Pay More	H10 H10: supported
H11: The international medical tourists' frequent visit has a moderating effect on the relationship between tourists' motivation and tourists' perceived destination image.	H11
H11a-b: The international medical tourists' frequent visit has a moderating effect on the relationship between tourists' motivation (a) attraction and (b) opportunity, and perceived medical image	H11a: not supported H11b: not supported
H12: The international medical tourists' frequent visit has a moderating effect on the relationship between perceived quality and perceived value	H12
H12a-b: The international medical tourists' frequent visit has a moderating effect on the relationship between perceived quality (a) medical staff, (b) supporting services, and perceived value	H12a: supported H12b: supported
H13: The international medical tourists' frequent visit has a moderating effect on the relationship between perceived quality and overall satisfaction	H13
H13: The international medical tourists' frequent visit has a moderating effect on the relationship between perceived medical staff quality and overall satisfaction	H13: not supported

Medical Tourists Demo – Socio Graphic and Motivational Behavior

The results of this part is to examine the relationship between international medical tourists' demographic profiles and behavior on motivation factors, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, commitment and loyalty with their medical experience in Thailand. The descriptive statistics of each dimension were analyzed and reported in table 4.18.

For the motivational factors, value had the highest rating with mean of 5.50, followed by attraction with mean of 5.33, and opportunity with mean of 4.72 respectively. In terms of perceived destination image, the highest mean was medical image with the value of 5.14, accessibility image had mean of 5.03, and safety image with mean of 4.69. For perceived quality dimensions, medical staff quality had the highest rating with mean of 5.15, followed by additional service quality with mean of 5.11.

Table 4.18: Mean of All Dimensions

Dimension	Mean (scale of 1 to 7)	SD
Motivational Factor		
Factor 1 Attraction	**5.33**	
Opportunity to combine medical service with a vacation	5.40	1.11
Great place for relaxation after medical treatment	5.36	1.14
Variety of existing tourist attractions for recapturing patients	5.19	1.20
Reasonable price and significant amount of money saving	5.38	1.15
Factor 2 Opportunity	**4.72**	
Type of medical treatments that are not allowed in your country	4.59	1.44
Type of medical treatments not covered by medical insurance in your country	4.72	1.37
Preference of privacy and confidentiality	4.85	1.17
Factor 3 Benefit	**5.50**	
Shorter waiting time for medical service than in your country	5.34	1.29
Less expensive medical treatment than in your country	5.65	1.15
Perceived Destination Image		
Factor 1 Medical Image	**5.14**	
International hospital accreditation	5.09	1.07
High standard level of medical facilities	5.16	1.13
High standard level of medical staff	5.16	1.11
Factor 2 Accessibility Image	**5.03**	
Ease of accessibility from your country	5.01	1.23
Ease of travel arrangement	5.00	1.21
Ease of visa and immigration procedures	5.07	1.26
Factor 3 Safety Image	**4.69**	
No language barriers in traveling in Thailand	4.56	1.46
Tourists safety from crime and terrorist attack	4.89	1.17
Political stability	4.62	1.32
Perceived Quality		
Factor 1 Medical Staff	**5.15**	
The Physicians paid enough attention to my concerns in deciding on the medical procedure	5.04	1.26
The physicians adequately explained my condition, examination results and medical process	5.12	1.28
The Physicians allowed me to ask many questions, enough to	5.09	1.33

clarify everything		
The medical staff has good communication skill	5.11	1.27
Medical staff was polite and friendly	5.40	1.16
Factor 2 Supporting Services	**5.11**	
The hospital amenities (cafeteria, public phone) were conveniently located	5.04	1.12
The hospital has a strong concern of patient safety	5.20	1.07
The hospital's attention to patient's privacy, confidentiality and disclosure	5.18	1.08
The hospital has acceptable protection against medical malpractice and disclosure	4.96	1.06
Package pricing with price transparency	5.15	1.11
Perceived Value	**5.49**	
I received a quality medical treatment with a reasonable price	5.47	1.14
This medical Treatment delivered superior value	5.49	1.11
This medical treatment was a good value for money	5.51	1.17
Overall Satisfaction	**5.50**	
Overall, I was satisfied with my medical treatment in Thailand	5.40	1.28
Overall, I was satisfied with my hospital services in Thailand	5.52	1.14
Overall, I was satisfied with my medical trip to Thailand	5.57	1.16
Word of Mouth	**5.43**	
I would say positive things about this medical treatment in Thailand to my relatives and close friends	5.47	1.13
I would be willing to recommend this medical treatment in Thailand to my relatives and close friends	5.38	1.35
Repeat Visit	**5.31**	
I will continue to use this hospital service in Thailand in the future	5.29	1.21
I would be willing to do further medical treatment at this hospital in Thailand	5.32	1.18
I would consider Thailand as my first choice for medical tourism	5.32	1.18
Willingness to Pay More	**4.96**	
I would continue to use this hospital service in Thailand even if the cost was higher than other destinations	4.94	1.27
I would be willing to spend more money on the medical treatment in Thailand even if the price increased	4.97	1.10

Analysis of Variance (ANOVA) and independent sample t- test were implement to examine the differences of international medical tourists' demographic profiles on motivation factors, perceived risk, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more.

The medical tourists were grouped by gender: male (n = 208) and female (n = 168). The t-test was used to test whether there is a significant difference between gender and their motivation and perception as presented in table 4.19.

The results indicated that the two gender of medical tourists differed in their mean scores with the significant difference existed on perceived quality (medical staff), word of mouth, and repeat visit. However, the results indicated that there was no significant differences exists on motivational factors, perceived destination image, perceived value, overall satisfaction, and willingness to pay more for male and female medical tourists.

Table 4.19: Comparison by Gender

Dimension	Male (n = 208)		Female (n = 168)		t-value	Sig
	Mean	SD	Mean	SD		
Motivational Factors						
Attraction	5.30	0.93	5.38	0.93	-0.83	0.41
Opportunity	4.67	1.11	4.77	1.15	-0.92	0.36
Benefit	5.53	1.09	5.45	1.07	0.73	0.47
Perceived Destination Image						
Medical Image	5.07	0.94	5.21	1.01	-1.42	0.16
Accessibility Image	4.99	1.10	5.07	1.02	-0.73	0.46
Safety Image	4.64	1.11	4.76	1.07	-1.06	0.29
Perceived Quality						
Medical Staff	5.03	1.14	5.30	1.04	-2.31	0.02*
Supporting service	5.06	0.56	5.16	0.84	-1.06	0.29
Perceived Value	5.41	1.11	5.59	1.02	-1.64	0.10
Overall Satisfaction	5.47	1.10	5.53	1.09	-0.37	0.71
Word of Mouth	5.30	1.20	5.57	1.09	-2.20	0.03*
Repeat Visit	5.19	1.14	5.45	1.00	-2.33	0.02*
Willingness to Pay More	4.87	1.14	5.07	1.01	-1.73	0.08

*$p \leq 0.05$

In terms of age, medical tourists were divided into three age groups as 18 – 35 years old (n = 176), 36 – 55 years old (n = 124), and above 55 years old (n = 75). The ANOVA were implemented to test whether their motivational behavior and perception were significantly different. Table 4.20 presented that there was a significant difference on motivational factor (opportunity), perceived destination image (medical image, safety image), perceived quality (medical staff), perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more among their age group.

The Tukey Post Hoc test was further implemented to identify which group were significant differences. On motivation dimension, the significant difference was found between the group of 18 – 35 years old and 36 - 55 years old at opportunity. The medical tourists with 36 – 55 years of age were significantly higher motivated to travel by opportunity. On perceived destination image dimension, significant differences were found at medical image among these three age groups. The medical tourist with 36 – 55 years old and above 55 years old was found to have significantly higher perceived medical image than the 18 – 35 years old. For the safety image, the result was also found that the 36 – 55 years old group score significantly higher than the 18 – 35 years old. For perceived quality dimension, the medical tourists with above 55 years of age were found to have significantly higher perceived medical quality than the 18 – 35 years old group.

The Tukey Post Hoc analysis also further indicated that the statistical significant different existed among medical tourists in different age group in their perceived value, overall satisfaction, word of mouth, repeat purchase, and willingness to pay more. For perceived value dimension, the medical tourists with above 55 years of age were found to have significantly higher than the 18 – 35 years old group. For the overall satisfaction

and word of mouth dimensions, the medical tourists with above 55 years of age were found to have significantly higher than both 18 – 35 years old and 36 – 55 years old. For repeat visit and willingness to pay more dimensions, again the above 55 years old group was found to have significantly higher than the 18 – 35 years old.

Table 4.20: Comparison by Age

Dimension	18 – 35 years old (n = 176)		36 – 55 years old (n = 124)		Above 55 years old (n = 75)		F-value	Sig
	Mean	SD	Mean	SD	Mean	SD		
Motivational Factors								
Attraction	5.30	0.84	5.25	0.92	5.54	1.08	2.422	0.090
Opportunity	4.57	1.08	4.95	1.02	4.66	1.35	4.267	0.015*
Benefit	5.42	1.15	5.51	0.97	5.62	1.08	0.911	0.403
Perceived Destination Image								
Medical Image	4.96	1.04	5.27	0.90	5.28	0.90	4.767	0.009*
Accessibility Image	4.89	1.04	5.13	1.00	5.15	1.21	2.495	0.084
Safety Image	4.54	1.06	4.86	1.04	4.78	1.20	3.488	0.032*
Perceived Quality								
Medical Staff	4.94	1.10	5.21	1.07	5.54	1.05	8.276	0.000*
Supporting service	5.02	0.83	5.19	0.86	5.18	0.86	1.936	0.146
Perceived Value	5.35	1.07	5.49	1.07	5.81	1.04	4.887	0.008*
Overall Satisfaction	5.32	1.10	5.49	1.08	5.91	1.01	7.771	0.000*
Word of Mouth	5.24	1.18	5.41	1.16	5.86	0.98	7.899	0.000*
Repeat Visit	5.15	1.07	5.34	1.09	5.64	1.09	5.527	0.004*
Willingness to Pay More	4.81	1.10	5.04	1.07	5.17	1.05	3.338	0.037*

*$p \leq 0.05$

A significant difference was also test with the medical tourists by their frequent of visit to Thailand by using t-test. The medical tourists were divided into two groups as first time visitors (n = 217) and repeat visitors (n = 121). Table 4.21 presented that there was no significant difference on motivational factor (attraction, and opportunity), perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more between medical tourists by their frequent of visit. However, the two groups of medical tourists differed in their mean scores with the significant difference existed on motivation factors (benefit).

Table 4.21: Comparison by Frequent of Visit

Dimension	First Time (n = 217)		Repeat Visit (n = 121)		t-value	sig
	Mean	SD	Mean	SD		
Motivational Factors						
Attraction	5.38	0.95	5.23	0.92	1.37	0.17
Opportunity	4.71	1.21	4.67	1.01	0.32	0.76
Benefit	5.59	1.07	5.35	1.02	2.08	0.04*
Perceived Destination Image						
Medical Image	5.10	1.03	5.09	0.95	0.14	0.89
Accessibility Image	5.03	1.12	5.06	0.98	-0.25	0.81
Safety Image	4.64	1.14	4.73	1.01	-0.74	0.46
Perceived Quality						
Medical Staff	5.10	1.16	5.14	1.06	-0.35	0.73
Supporting service	5.14	0.91	5.04	0.80	1.02	0.31
Perceived Value	5.45	1.14	5.51	0.98	-0.48	0.63
Overall Satisfaction	5.50	1.12	5.43	1.06	0.52	0.60
Word of Mouth	5.35	1.21	5.38	1.04	-0.26	0.79
Repeat Visit	5.23	1.15	5.33	0.94	-0.84	0.40
Willingness to Pay More	5.89	1.13	5.01	0.94	-0.98	0.33

*$p \leq 0.05$

Regarding to the visiting purpose, the medical tourists were divided into 2 groups: pleasure visitors (n = 216) and others visitors (n = 157). The results in table 4.22 indicated that there was no significant difference on motivational factor, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more between medical tourists by their purpose of visit.

Table 4.22: Comparison by Purpose of Visit

Dimension	Pleasure (n = 216)		Others** (n = 157)		t-value	sig
	Mean	SD	Mean	SD		
Motivational Factors						
Attraction	5.38	0.93	5.26	0.92	1.18	0.24
Opportunity	4.73	1.10	4.70	1.17	0.24	0.81
Benefit	5.54	1.11	5.43	1.03	0.95	0.34
Perceived Destination Image						
Medical Image	5.08	1.00	5.20	0.94	-1.23	0.22
Accessibility Image	5.04	1.04	4.99	1.11	0.44	0.66
Safety Image	4.65	1.12	4.76	1.04	-0.91	0.37
Perceived Quality						
Medical Staff	5.12	1.14	5.19	1.04	-0.57	0.57
Supporting service	5.13	0.88	5.06	0.80	0.91	0.36
Perceived Value	5.55	1.12	5.41	1.01	1.29	0.20
Overall Satisfaction	5.56	1.09	5.41	1.10	1.30	0.20
Word of Mouth	5.41	1.19	5.43	1.12	-0.18	0.86
Repeat Visit	5.31	1.10	5.31	1.06	0.05	0.96
Willingness to Pay More	4.93	1.12	4.99	1.05	-0.56	0.57

*$p \leq 0.05$

**Others consisted of business/work, medical treatment, visit friend and relatives, convention/exhibition

When the medical tourists were group according to travel companion as individual (n = 171) and with others (n = 184), the two groups of medical tourists differed in their mean scores with the significant difference existed. As shown in table 4.23 there was a significant difference on motivational factor (attraction), perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit , and willingness to pay more when they were group according to their travel companion.

Table 4.23: Comparison by Travel Companion

Dimension	Individual (n = 171)		With Others (n = 184)		t-value	sig
	Mean	SD	Mean	SD		
Motivational Factors						
Attraction	5.20	0.90	5.49	0.93	-2.93	.004*
Opportunity	4.65	1.02	4.78	1.23	-1.09	.276
Benefit	5.34	1.00	5.58	1.14	-2.05	.041
Perceived Destination Image						
Medical Image	5.06	0.88	5.21	1.07	-1.36	.176
Accessibility Image	4.94	1.02	5.08	1.12	-1.15	.251
Safety Image	4.71	1.01	4.68	1.16	0.20	.843
Perceived Quality						
Medical Staff	5.01	1.06	5.35	1.07	-3.01	.003*
Supporting service	4.99	0.78	5.20	0.91	-2.39	.017*
Perceived Value	5.37	1.03	5.66	1.06	-2.58	.010*
Overall Satisfaction	5.39	1.02	5.66	1.10	-2.47	.014*
Word of Mouth	5.35	1.09	5.59	1.11	-2.12	.035*
Repeat Visit	5.24	1.04	5.45	1.06	-1.87	.062
Willingness to Pay More	4.95	1.04	5.04	1.09	-0.75	.456

*$p \leq 0.05$

CHAPTER V

CONCLUSIONS

This final chapter discussed the results and the implications of the study. This chapter is composed of three sections. The first section explains and discusses the results related to the objectives of the study. The second section addresses the conclusions and recommendations including the academic and managerial implication. Finally, the limitation of the study and future research are also presented in this chapter.

DISCUSSION

The purpose of this study was twofold. They were 1) to develop a theoretical structural model of medical tourists motivational behavior and perception; and 2) to empirically test the conceptual model of relationships among the constructs. Objectives for the study were to (1) examine the structural relationship of medical tourists motivational behavior and perception model; (2) assess the moderating effect of international medical tourists' familiarities with the destination on relationship between perceived destination image on a medical tourist destination;

(3) examine the differences between international medical tourists' demographic profiles on motivation factors, perceived risk, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more; and (4) recommend medical tourism strategies to Thailand in order to facilitate the medical tourist expectations and strengthen the services for future competition.

Structural relationship of medical tourists motivational behavior and perception

This study combined the theory of motivation, perception, and behavioral intention as a theoretical model. Medical tourist's motivation occurred prior to receiving services. Medical tourist's perception occurred during and after they received the specific services. This study included customer perceptions based on destination image, quality, value, and satisfaction which occurred during services. Further, behavioral of medical tourist after the services also examine as their future intention which included word of mouth, repeat visit, and willingness to pay more. The results show the appropriate measurement model from confirmatory factor analysis and structural model from structural equation model. In addition, causal linked between constructs indicated some significant relationships as well.

Motivation and Perceived Destination Image

As previous literature discussed, tourists travel based on push and pull motivation. Push motivation factors originate from the intangible or intrinsic desires of human beings including the desire for escape, novelty seeking, adventure seeking, dream fulfillment, self exploration, rest and relaxation, health and fitness, prestige, and socialization (Chon, 1989; Lam & Hsu, 2006; Uysal & Jurowski, 1994; Yuan & McDonald, 1990).

Meanwhile, pull motivation factors have been characterized in terms of both tangible and intangible features such as natural and historical attractions, physical environment, infrastructure, sport and recreation facilities, food, people and the marketed image of the destination (Kim, Crompton, & Botha, 2000; Klenosky, 2002; Uysal & Hagan, 1993). Further, previous literature also suggested that push and pull motivation factors were related to each other. As it has been noted that the internal forces push people to travel, the external forces of the destination itself simultaneously pull them to choose that particular destination (Cha, McCleary & Uysal, 1995; Uysal & Jurowski, 1994; Kim, Lee & Klenosky., 2003). Although this study combined and analyzed push and pull motivation together as previous literature suggested, the study specifically found that motivation factors were grouped into three groups – attraction, opportunity, and benefit. These results of three motivational factors further indicated that medical tourists were persuading to travel by either push or pull factor separately. The opportunity and benefit motivation group were motivate to travel by their push factors. On the other hand, the attraction group was combine push and pull together but the majority factors were pull motivation of the destination. On one aspect, the results of this study similar to previous findings of Chen, Prebensen, and Huan (2008) as they explored that relaxation, pursuing multiple activities, recreation, and enjoying nature are primary motivations of tourists travel to a wellness destination. On another aspect, this study was focus on medical tourism which related on treatment of illness instead of wellness. The results therefore differ from Chen, Prebensen, and Huan (2008).

The previous literature defined destination image as a sum total of images of individual elements or attributes that make up the tourism experience (Milman & Pizam,

1995). As discussed by Beeerli and Martin (2004) destination image included natural resources, general infratructure, tourist infrastructure, political and economic factors, social environment etc. The results of this study categorized perceived destination image into three groups as medical, accessibility, and safety image.

The structural model only tested motivation and perceived medical image. Only two motivations (attraction and opportunity) were found to positively influence international tourists' perceived medical image. Surprisingly, benefit motivation showed no positive influence on medical image. The results might due to the reasons medical travel is a specific segment of tourism with initial purpose of medical tourists is medical treatment. The specific group of medical tourists who were motivated to travel for medical treatment by benefit (shorter waiting time or less expensive) might also perceived that medical treatment in other countries were inferior to their own countries. However, they might persuade to travel solely by the urgent need or expenses of the medical treatment and do not consider the medical image.

Perceived Destination Image and Perceived Quality

As previously discussed, the perceived destination image was categorized into three factors including medical image, accessibility image, and safety image. For the perceived quality, the result of this study classified two perceived qualities as medical staff quality and additional services quality.

The results indicated that medical image had a positively significant influence both medical staff quality and additional services quality as expected. Similarly, Bigne et al. (2001) stated that tourism image is a direct antecedent of perceived quality. The

finding of this study also supported the previous studies found that tourism image exercises a positive influence on perceived quality and satisfaction, because it creates the expectations that the individual forms before the visit, and these variables depend on the comparison of such expectations with experience (Font, 1997; Phelps, 1986, Bigne et al, 2001). Therefore, it is suggested that destinations that wishing to create a reputation on quality of medical services would also need to simultaneously develop destination image as well.

The Mediating Role of Perceived Value and Overall Satisfaction

The objective of this study was to identify the mediating role of perceived value and overall satisfaction between perceived quality and word of mouth. The results suggested perceived value plays a mediating role in the relationship between perceived quality (medical staff quality and supporting services quality) and future intention (word of mouth).

When medical tourists perceived the high quality of medical staff, they are likely to recommend the services via word of mouth both directly and indirectly. These findings were similar to the previous study as stated that customer perceptions of superior product quality better than expected may be necessary to produce favorable word of mouth communication (Woodside & Moore, 1987). It is noteworthy in this study that the indirect effect of medical staff quality through perceived value on word of mouth was much larger than the direct effects of medical staff quality on word of mouth. However, if medical tourists perceived high quality supporting services, they are likely to have a perceived value and give recommendations through word of mouth. Interestingly,

supporting services quality was not directly influence word of mouth. Although perceived value has mediating role in the relationship between perceived quality (medical quality and supporting service quality) and word of mouth, the indirect effect of perceived value on medical staff quality is much stronger than on additional services quality. The findings implied that medical tourists are more likely to recommend the overall quality of medical services if they perceived that the medical services have value rather than the qualities themselves.

The results also suggested that overall satisfaction plays a mediating role in the relationship between perceived quality (medical staff quality and supporting services quality) and future intention (word of mouth). Conversely, overall satisfaction has no direct effect and only partially mediated role between additional services quality and word of mouth. The findings stated that medical tourists are more likely to use word of mouth on the medical staff quality when they have overall satisfaction toward medical staff quality not supporting quality. Surprisingly, when medical tourists perceived high additional services quality they are unlikely to increased word of mouth both directly or indirectly through their overall satisfaction. Although, the supporting services quality revealed no positively influence overall satisfaction, and word of mouth of medical tourists, these factors still essential overall medical quality because its role act as basic supporting factors to medical staff quality.

These results supported the findings of Heiller et al. (2003) that perceived quality of the service has a direct positive effect on the perceived value of the services. However, the findings of Heiller et al (2003) also concluded that the perceived quality of service has no direct positive effect on customer satisfaction which is differ from this study.

Further, the results of this study also confirmed the study of Lee, Graefe and Burns (2003) which suggested that satisfaction has a mediating role between service quality and behavioral intention.

Future Behavioral Intention

The future behavioral intention of medical tourists can be classified as word of mouth recommendation, repeat visit, and willingness to pay more.

Word of mouth recommendation was found to positively influence their repeat visit of medical destinations. The finding signified that once medical tourists recommend the medical services to other people, they also are willing to revisit such medical services even if obligated. The repeat visit can be in the form of continue usage or obtain additional treatment at the same hospital.

The repeat visit of medical tourist was found to positively influence their willingness to pay more for further medical services. This finding implied that the repeat visitation in terms of continue usage or obtaining additional treatment at the same hospital, and consider the destination as the first choice for medical tourism positively influence their consideration to continue using the hospital even if the price had increased and higher than other destination.

The Moderating Role of Frequent visit

There was no interaction effect between frequent visit and motivation (attraction and opportunity) on perceived medical image, only direct effects of independent variables were taken into the consideration. For the direct effect of independent variables, there

was also no significant influence of frequent visit with destination on perceived destination image. Therefore, only the motivation had an impact on perceived medical image. Surprisingly for this study with specific to the medical tourism, there was no moderating effect of familiarity on relationship between most motivation factors and destination image. Only attraction motivation was found to have moderating effect on accessibility image. The results differed from the study of Milman and Pizam (1995) which indicated that tourist who had previously visited destination had more positive image of the destination. Different from previous literatures, the results of this study probably due to the differ of specific motivation to travel. For general tourists, the motivation might be for pleasure purpose. Then the previous experience at destination and destination image also include in their decisions. However, for medical tourists whether they were motivated by attraction, opportunity, or benefit. The primary motivation to travel is the need to relief from sickness or illness. Therefore, the familiarity with destination was not the main focus on perceived medical image. However, frequent visit found to have a moderating effect on the relationship of perceived quality (medical staff and supporting services) and perceived value. Surprisingly, the frequent visit was found to have no moderating effect on the relationship of perceived quality (medical staff) and overall satisfaction.

Medical Tourists Demographic Profiles and Motivational Behavior and Perception

Medical tourist with different socio demographic and travel behaviors reported differences in their motivational behavior and perception.

The results indicated that opposite genders of medical tourists differed in their mean scores with the significant difference existing on perceived quality (medical staff), word of mouth, and repeat visit. However, the results indicated that no significant differences existed on motivational factors, perceived destination image, perceived value, overall satisfaction, and willingness to pay more for male and female medical tourists.

In terms of age, medical tourists were divided into three age groups as 18 – 35 years old, 36 – 55 years old, and above 55 years old. Respondents in different age groups show a significant difference on motivational factor (opportunity), perceived destination image (medical image, safety image), perceived quality (medical staff), perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more .

When medical tourists were grouped according to the frequent visit as first time visitors and repeat visitors, there was no significant difference on motivational factor (atrraction and opportunity), perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more. However, the two groups of medical tourists differed in their mean scores with the significant difference existing on motivation factors (benefit). The reason first time visitors to Thailand have higher mean score on benefit might due to no experience about medical treatment in Thailand. Conversely, repeat visitors already have experience in Thailand, so they no longer perceive that benefit as their motivation.

Respondents were also grouped by their purpose of their visit as pleasure visitors and visitors with other purposes. The visitors with other purposes comprised of business, medical, visit friend and relatives, and convention or exhibition. Respondents with different visitation purpose were found to have no significant difference on motivational factor, perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more.

The medical tourists were grouped according to travel companion as individual travelers and travel with others. There was a significant difference were found on motivational factor (attraction), perceived destination image, perceived quality, perceived value, overall satisfaction, word of mouth, repeat visit, and willingness to pay more. Respondents who travel with others were found to have higher mean scores than respondents who travel individually. This may be because when people travel to foreign countries especially for medical purpose, having companion make them feel more secure.

Implications

Several useful implications can be drawn from the findings of this study.

Theoretical Implication

The findings of the study provided major contributions to the existing theory for several reasons. First, findings identified and categorized motivation factors, perceived destination image, and perceived quality specifically to the medical tourism sector. Second, the study established a theoretical model to explain medical tourists' motivation behaviors and perceptions by incorporated motivation, perceived destination image, perceived quality, perceived value, overall satisfaction, and future behavioral intention. Third, the results of measuring a moderate effect in this study, which specific to medical tourists, can be used to theoretically compare to tourists in other tourism sectors. In conclusion, the findings of this study have theoretical implications in terms of developing a framework for identifying the antecedents of medical motivation and conceptualizing medical tourism motivational behavior and perception.

Managerial Implications

The result of this study can be implemented in both macro and micro perspectives. The macro perspectives involved the factors on perceived destination image of medical destination that hospitals cannot control – accessibility and safety image. These two images involved general image of the country such as visa procedures, safety, and political stability. These factors should be governed by the government to promote the country's image as medical destination.

The micro perspectives involved medical image, perceived quality, perceived value, and satisfaction which the hospital can control. Medical tourists' experiences play a greater part in creating future behavioral intentions. The hospitals have control over service delivery. Perceived value and satisfaction are supported as a mediating role between service quality and behavioral intention. Thus providing high service quality may increase perceived value, overall satisfaction and positive behavioral consequences. However, increasing medical tourists perceived value and satisfaction is not an easy task because they can be influenced by many variables such as competitors or time period. Therefore, managers of the hospital should conduct regular service quality surveys. A study about understanding customers' needs and expectations should also be conducted. Then all medical staff and employees directly interacting with customers should be informed and trained to meet services expectation.

Limitations and Suggestions for Future Research

Limitations

Several limitations were unavoidably inherent with this study. The first limitation is only an English language questionnaire was used as the survey instrument of the study. Even though the majority of respondents could read English, some respondents may have not clearly understand the questions due to English being a second language.

The second limitation is self –reported bias. It is important to consider that the analyses conducted in this study were primarily based on self-reported data. Thus under or over reporting, unfavorable or favorable experiences due to poor memory recall might introduce bias.

Low response rate is also considered as a limitation. Though the data collection time frame was extended and an incentive was offered, the response rate was small. The low response rate is directly related to non response error and non response bias. Therefore, the collected responses may not represent the characteristics and perceptions of those who did not participate in the survey.

The location, Thailand as a medical tourism destination, represents the last limitation.. Hence, it is necessary to remind the reader that results may not be generalizable to other populations or destinations that were not included in the study

Future Research

Although not included in this study, one of the attributes that probably plays an important role in medical travel is perceived risk. Further research should consider incorporating perceived risk to test the structural model.

As medical tourism has gained popularity and there are increasing number of third party in medical travel, Further medical travel study should focus on the role of medical intermediaries on medical tourism.

Since the healthcare expense in developed countries has increased steadily, corporations or organizations in those countries started to outsource the medical treatment for their employees. Study emphasis on factors that corporations take into consideration when choosing medical tourism is viable future research. The comparison between motivations of medical treatment for individual versus corporate buyers presents research opportunities.

Cross-cultural study comparison of countries' ethnicity could be done to investigate the medical tourist motivation, perception and behavior. Longitudinal studies of medical tourism in Thailand or any given destination would allow for in-depth analysis.

For macro perspective, medical tourism has the effects on both tourists' native countries and medical tourism hub countries. Future research should focus on economic impact of both tourists' native countries and medical tourism hub countries. Finally, most of the countries who are promoted as a medical hub are underdeveloped or developing countries. Future research should emphasize the effect of medical tourism on healthcare policy development of medical hub nations.

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APPPENDICES

APPENDIX A

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL

Oklahoma State University Institutional Review Board

Date:	Wednesday, May 27, 2009
IRB Application No	HE0936
Proposal Title:	An Examination of the Medical Tourist's Motivational Behavior and Perception: A Structural Model
Reviewed and Processed as:	Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 5/26/2010

Principal Investigator(s):

Walanai Saiprasert
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Stillwater, OK 74075

Hailin Qu
220 HES
Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

X The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

Sheila Kennison, Chair
Institutional Review Board

APPENDIX B

SURVEY QUESTIONNAIRE

Questionnaire Survey 

Greeting and Welcome to Thailand

Dear Respondents,

My name is Wanlanai Saiprasert, a Ph.D. student in the School of Hotel and Restaurant Administration at Oklahoma State University, USA. I am conducting a research to have a better understanding of medical tourists' motivation and satisfaction levels in order to improve and provide better quality services to you and other medical tourists. This research is being conducted as partial fulfillment of academic requirements for my doctoral degree in Hospitality Administration at Oklahoma State University.

Your participation in this research is completely voluntary and should take only 10 – 15 minutes. Please respond to all of the questions on the survey and return the completed questionnaire in the enclosed postage – paid envelope provided with the survey. The results of the research will be presented in an aggregate format and no information will be reported in any way that will identify you. There are no known risks associated with this research which are greater than those ordinarily encountered in daily life. However, if you wish to withdraw your participation, you may do so at any time.

This instrument has been approved by the Institution Review Board at Oklahoma State University (irb@okstate.edu) and has met all the human subjects and ethical requirements. Please contact the researchers if you have any questions concerning this research. Our contact information is provided below. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu.

Thank you in advance for your time, cooperation and participation in this study.

Sincerely,

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Questionnaire # _____

<u>Part 1</u>: Basic Information of Medical Travel

Please respond the following questions by checking (✓) the number that corresponds to your answer

1. **How many times have you traveled on a medical trip to Thailand including this trip?**
   - ① First time
   - ② 2 times
   - ③ 3 times
   - ④ 4 times or more

2. **Your primary purpose of this visit to Thailand (Select only one)**
   - ① Pleasure/vacation
   - ② Business/work
   - ③ Medical treatment
   - ④ Visit friend and relatives
   - ⑤ Convention/Exhibition
   - ⑥ Other (please specify)_____

3. **Type of medical service you are seeking for this medical trip (please check all apply)**
   - ① Dental surgery/treatment
   - ② Cosmetic/plastic/reconstructive surgery
   - ③ Sight treatment/lasik
   - ④ Heart surgery
   - ⑤ Comprehensive medical checkup
   - ⑥ Other (please specify)_____ _____

4. **Do you have any health or medical insurance coverage on this type of medical treatment?**
   - **a. In your country :** ① Yes (with full or partial coverage) ② No
   - **b. In Thailand:** ① Yes (with full or partial coverage) ② No

5. **Please rank the <u>TOP THREE</u> sources of information you sought before making the decision to embark on this medical trip (1, 2, 3)**
   - _____ Advice of doctor/physician in your country
   - _____ Word-of- mouth from friends or relatives
   - _____Medical tourism intermediary's website
   - _____Website of hospital in Thailand
   - _____Online medical communities
   - _____Medical tourism weblog (blog)
   - _____Reading the testimonies of other patients who had surgery abroad
   - _____ Other (please specify)_____

6. **How long did it take for you to make the final decision for this medical trip?**
   - ① 1 – 4 weeks ② 5 – 8 weeks ③ More than 8 weeks
   - ④ Specify lengths_____

7. Besides Thailand, have you considered other countries for this medical treatment?

① Yes ② No

If yes, please list the <u>TOP TWO</u> countries you considered

1._____ 2._____

8. How did you arrange for this medical treatment?

① Directly with the hospital

② Through medical travel intermediaries' websites

③ Other (please specify)_____

9. Travel companion?

① Individual (none) ② Spouse/family/relatives/friends

③ Others (please specify)_____

10. Besides the medical treatment, do you plan to do any type of traveling in Thailand?

① Yes What type?_____Where?_____

② No Why?_____

Part 2: Perceptions of Thailand and Medical Tourism in Thailand

Please indicate your level of agreement for the following statements by circling the appropriate number from 1 "strongly disagree" to 7 "strongly agree"

When it comes to medical treatment, Thailand offers:	AGREEMENT						
	STRONGLY DISAGREE →						STRONGLY AGREE
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Shorter waiting time for medical service than in your country	1	2	3	4	5	6	7
2. Less expensive medical treatment than in your country	1	2	3	4	5	6	7
3. Opportunity to combine medical service with a vacation	1	2	3	4	5	6	7
4. Type of medical treatments that are not allowed in your country	1	2	3	4	5	6	7
5. Type of medical treatments not covered by medical insurance in your country	1	2	3	4	5	6	7
6. Preference of privacy and confidentiality	1	2	3	4	5	6	7
7. Great place for relaxation after medical treatment	1	2	3	4	5	6	7
8. Variety of existing tourist attractions for recapturing patients	1	2	3	4	5	6	7
9. Reasonable price and significant amount of money savings	1	2	3	4	5	6	7
10. Opportunity for person who has no or limited medical insurance in his/her country	1	2	3	4	5	6	7
11. Various types and availability of medical services	1	2	3	4	5	6	7
12. Ease of accessibility from your country	1	2	3	4	5	6	7
13. Ease of travel arrangements	1	2	3	4	5	6	7
14. Ease of visa and immigration procedures	1	2	3	4	5	6	7
15. Friendliness and helpfulness of the local people	1	2	3	4	5	6	7
16. No language barriers in traveling in Thailand	1	2	3	4	5	6	7
17. Tourists safety from crime and terrorist attack	1	2	3	4	5	6	7
18. Political stability	1	2	3	4	5	6	7
19. Well-reputed as a tourist destination	1	2	3	4	5	6	7
20. Recognized hospital reputation	1	2	3	4	5	6	7
21. International hospital accreditation	1	2	3	4	5	6	7
22. High standard level of medical facilities	1	2	3	4	5	6	7
23. High standard level of medical staff	1	2	3	4	5	6	7
24. Recognized reputation of physicians	1	2	3	4	5	6	7
25. Western experienced/trained physicians	1	2	3	4	5	6	7
26. Ease of medical treatment arrangements	1	2	3	4	5	6	7

<u>Part 3</u>: Perceived Quality of Medical Treatment

Please indicate your level of agreement for the following statements by circling the appropriate number from 1 "strongly disagree" to 7 "strongly agree"

PERCEIVED QUALITY	AGREEMENT						
	STRONGLY DISAGREE →						STRONGLY AGREE
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1.The process for setting up the medical procedure appointment was simple and easy	1	2	3	4	5	6	7
2.Ease of assembled and transmitted of medical record/information	1	2	3	4	5	6	7
3. Short waiting time for the medical examination from the physicians	1	2	3	4	5	6	7
4. The physicians paid enough attention to my concerns in deciding on a medical procedure	1	2	3	4	5	6	7
5. The physicians adequately explained my condition, examination results and medical process	1	2	3	4	5	6	7
6. The physicians allowed me to ask many questions, enough to clarify everything	1	2	3	4	5	6	7
7. The medical staff has good communication skill	1	2	3	4	5	6	7
8. Medical staff was polite and friendly	1	2	3	4	5	6	7
9.The hospital has state -of –the-art facilities and equipments	1	2	3	4	5	6	7
10.Hospital care facilities (laboratory, doctors' office) were easy to find	1	2	3	4	5	6	7
11.The hospital amenities (cafeteria, public telephone) were conveniently located	1	2	3	4	5	6	7
12.The hospital has a strong concern of patient safety	1	2	3	4	5	6	7
13.The hospital's attention to patient' s privacy, confidentiality and disclosure	1	2	3	4	5	6	7
14. The hospital has acceptable protection against medical malpractice and liability	1	2	3	4	5	6	7
15. The payment procedure was quick and simple	1	2	3	4	5	6	7
16. Package pricing with price transparency	1	2	3	4	5	6	7
17. Assistance with financial arrangements including advance estimates for fees, deposits, and payments	1	2	3	4	5	6	7
18. Convenient hospital transportation arrangement	1	2	3	4	5	6	7
19. Arrangement for language interpretation service	1	2	3	4	5	6	7
20. Coordination of arrangements between the patient, hospital, third party insurance companies, embassies and other businesses	1	2	3	4	5	6	7

<u>Part 4:</u> Perceived Value, Overall satisfaction and Future intention

Please indicate your level of agreement for the following statement by circling an appropriate number from 1 "strongly disagree" to 7 "strongly agree"

PERCEIVED VALUE	AGREEMENT						
	STRONGLY DISAGREE → STRONGLY AGREE						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I received a quality medical treatment with a reasonable price	1	2	3	4	5	6	7
2. This medical treatment delivered superior value	1	2	3	4	5	6	7
3. This medical treatment was a good value for money	1	2	3	4	5	6	7

OVERALL SATISFACTION	AGREEMENT						
	STRONGLY DISAGREE → STRONGLY AGREE						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. Overall, I was satisfied with my medical treatment in Thailand	1	2	3	4	5	6	7
2. Overall, I was satisfied with my hospital services in Thailand	1	2	3	4	5	6	7
3. Overall, I was satisfied with my medical trip to Thailand	1	2	3	4	5	6	7

FUTURE INTENTION	AGREEMENT						
	STRONGLY DISAGREE → STRONGLY AGREE						
	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Somewhat Agree	Agree	Strongly Agree
1. I would say positive things about this medical treatment in Thailand to my relatives and close friends	1	2	3	4	5	6	7
2. I would be willing to recommend this medical treatment in Thailand to my relatives and close friends	1	2	3	4	5	6	7
3. I will continue to use this hospital service in Thailand in the future	1	2	3	4	5	6	7
4. I would be willing to do further medical treatment at this hospital in Thailand	1	2	3	4	5	6	7
5. I would consider Thailand as my first choice for medical tourism	1	2	3	4	5	6	7
6. I would continue to use this hospital service in Thailand even if the cost was higher than other destination	1	2	3	4	5	6	7
7. I would be willing to spend more money on the medical treatment in Thailand even if the price increased	1	2	3	4	5	6	7

<u>Part 5</u>: General Information

Please respond the following questions by checking (✓) the number that corresponds to your answer

1. What is your gender?

① Male ② Female

2. What is your marital status?

① Single ② Married ③ Divorced/Widowed/Separated

④ Other (please specify)_____

3. What is your age group?

① 18 – 25 years old ② 26 – 35 years old ③ 36 – 45 years old

④ 46 – 55 years old ⑤ 56 – 65 years old ⑥ Above 65 years old

4. What is your highest educational level?

① High school or below ② Associate college degree/High diploma (2 years)

③ Bachelor degree (4 years) ④ Post graduate education

⑤ Professional certificate ⑥ Other (please specify)_____

5. What is your current occupation?

① Government Official/Military ② Teacher/Instructor/Professor

③ Executive/Managerial positions ④ Clerical/Administrative/Secretarial

⑤ Professional/Technical positions ⑥ Production/Manufacturing

⑦ Self-employed ⑧ Retiree/Not in the work force

⑨ Others (please specify)_____

6. What is your nationality_____

7. What is your country of residence?_____

Comments and suggestion regarding medical tourism

_____

_____

_____

Thank you for your time, cooperation and participation in this research study.

----------Enjoy your stay in Thailand ----------

VITA

Wanlanai Saiprasert

Candidate for the Degree of

Doctor of Philosophy

Thesis: AN EXAMINATION OF THE MEDICAL TOURISTS MOTIVATIONAL BEHAVIOR AND PERCEPTION: A STRUCTURAL MODEL

Major Field: Human Environmental Sciences

Biographical:

Education:

Received Bachelor of Arts in Business Administration at Chiang Mai University, Chiangmai, Thailand in February, 1993.

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Name: Wanlanai Saiprasert Date of Degree: May, 2011

Institution: Oklahoma State University Location: Stillwater, Oklahoma

Title of Study: AN EXAMINATION OF THE MEDICAL TOURISTS MOTIVATIONAL BEHAVIOR AND PERCEPTION: A STRUCTURAL MODEL

Pages in Study: 164 Candidate for the Degree of Doctor of Philosophy

Major Field: Human Environmental Sciences

Scope and Method of Study: The objectives of this study were to (1) examine the structural relationship of medical tourists motivational behavior and perception model; (2) assess the moderating effect of repeat visit on relationship between motivation and perceived destination image, perceived quality and perceived value, perceived quality and overall satisfaction; (3) examine the differences between international medical tourists' profiles on motivational behavior and perception; and (4) recommend medical tourism strategies in order to facilitate the medical tourist expectations and strengthen services for future competition. Respondents were international medical tourists travelled to Thailand. The total of 376 medical tourists participated in this study. ANOVA and independent sample T-Test were applied for the significant difference on medical tourist motivational behavior and perception. Structural equation modeling by LISREL 8.80 and hierarchical multiple regression were used to examined the causal links among constructs.

Findings and Conclusions: Results revealed that international medical tourist motivation (attraction and opportunity) positively influence the perceived medical image. The perceived medical image also positively influence perceived quality on both medical staff and supporting services. Furthermore, medical staff quality also positively influences the perceived value and overall satisfaction of international medical tourists. Finally, the perceived value and overall satisfaction also positively influence the behavioral intention by word of mouth recommendation, repeat visit, and willingness to pay more. This study further found the moderating effect of frequent visit on perceived quality of and perceived value. Moreover, the results indicated that international medical tourists were significant difference on their motivational behavior and perception. This study suggested that the corporation between hospitals and government should be implemented in order to be successful as medical tourism destination.

ADVISER'S APPROVAL: Dr. Hailin Qu