

2010

Salient factors influencing medical tourism destination choice

Nuttapong Jotikasthira
Southern Cross University

Publication details

Jotikasthira, N 2010, 'Salient factors influencing medical tourism destination choice', DBA thesis, Southern Cross University, Lismore, NSW.

Copyright N Jotikasthira 2010

ePublications@SCU is an electronic repository administered by Southern Cross University Library. Its goal is to capture and preserve the intellectual output of Southern Cross University authors and researchers, and to increase visibility and impact through open access to researchers around the world. For further information please contact epubs@scu.edu.au.

**Salient Factors Influencing Medical Tourism
Destination Choice**

Nuttapong Jotikasthira

**A RESEARCH THESIS SUBMITTED IN PARTIAL
FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE
OF DOCTOR OF BUSINESS ADMINISTRATION
SOUTHERN CROSS UNIVERSITY, AUSTRALIA**

2010

Declaration

I certify that the substance of this Thesis has not been submitted for any degree and is currently being submitted for any other degrees. I certify that to the best of my knowledge any help received in preparing this work, and all sources used, have been acknowledged in this thesis

.....

Nuttapong Jotikasthira

March 2010

Acknowledgments

I express my gratitude to several people who have provided valuable assistance in the course of my studies in general and this research project in particular.

First, I express sincere thanks to my research supervisor, Dr Carmen Cox, who has worked patiently with me throughout the development and completion of this research project. The intellectual stimulation and wise guidance offered by Dr Cox have been invaluable in maintaining my motivation and persistence throughout this long project.

Secondly, I express my deep appreciation of the assistance provided by Dr Arthit Ourairat, President of Rangsit University, and Mr Seree Wangpaichitr, Dean of the Faculty of Tourism and Hospitality Industry, Rangsit University, who have provided valuable support in the form of a full scholarship, much encouragement, and helpful coordination with several government agencies. I also thank Mrs Pornsiri Manoharn, former governor of the Tourism Authority of Thailand (TAT), who kindly agreed to facilitate the collection of data through TAT's international offices.

Thirdly, I express my profound gratitude to the members of my family, who have always supported me in everything I have undertaken in my life. I especially thank my parents, who not only raised me so well by instilling positive personal values but also provided me with every opportunity in my education and career. I also express the gratitude I owe to my late uncle, Mr Roberto Jotikasthira, founder of Turismo Asia Co. Ltd., who broadened my vision of the world of tourism, and to my brother, Associate Professor Chotibhak, who has always provided moral support in my life and been an admirable role model in every respect

Finally, my experience at Southern Cross University has been made much easier as a result of the assistance provided by the DBA administrative staff, especially Ms Sue White and Ms Susan Riordan, who have invariably provided me with very useful information and great moral support.

Abstract

The aim of this research is to analyse the factors that determine the motivation and behaviour of potential medical tourists in choosing a destination, with particular emphasis on the role played by destination image in the case of Thailand. In pursuit of this objective, the study examines the motivation of individuals to engage in medical tourism, their information search behaviour, their reliance on various information sources, and the salient criteria they use in evaluating alternative medical-tourism destinations.

These issues are worthy of detailed study for several reasons. First, medical tourism has the potential to be an important factor in sustaining the competitive advantage of Thailand in the tourism market in general, while also being a significant revenue-generating sector in its own right; indeed, the policy of the Thai government envisages Thailand as both a tourism and medical hub of Asia. Secondly, contemporary medical tourism, which typically involves patients from developed countries being attracted to developing countries for quality medical services at cheaper prices, is a relatively new phenomenon that has received very little research attention. As a consequence, decision-makers in this field are forced to make marketing decisions on the basis of intuition and/or relatively unreliable non-research literature. A thorough research-based understanding of consumer behaviour in the context of medical tourism is still lacking. It is therefore important for decision-makers to have access to a thorough research-based analysis of the salient factors that determine the choice of a medical-tourism destination.

To address the substantive research question of identifying the salient factors that influence the choice of a medical-tourism destination, the present study primarily collects data from an online survey of potential medical tourists, complemented with data from a hardcopy written survey. The population from which the sample is drawn for these surveys includes individuals who: (i) have expressed an interest in medical tourism; and (ii) are proficient in English. Respondents in the final research sample are asked to answer questions that seek to measure their attitudes, opinions, and intentions with regard to: (i) their health behaviours; (ii) the costs and waiting times of

medical treatment provided in their home countries; (iii) their perceptions of risk; (iv) their familiarity with medical procedures and with Thailand as a medical-tourism destination; (v) their assessment of destination attributes; (vi) the image of Thailand (and its three competing destinations) as a medical-tourism destination; and (vii) their intentions to visit Thailand (and/or its three competing destinations) for the purpose of medical tourism.

Following analysis of the collected data, the study finds that individuals who are more inclined to undertake medical tourism are those who: (i) have an internal health locus of control; (ii) consider the cost of health-care services in their home countries to be financially unaffordable; and (iii) consider that the waiting time to receive desired treatment in their home countries is too long (Wallston et al., 1994, Awadzi and Panda, 2005).

The study also finds that there is a negative relationship between the information-search behaviour of potential medical tourists and their familiarity with medical procedures and/or alternative destinations (Gursoy and McCleary, 2004, Wirtz and Mattila, 2003). In contrast, perceptions of risk, which might have been expected to have a positive effect on external information search, is not found to exert an influence in this study; this finding probably reflects the complexity of the issues involved and respondents' relative inability to process the relevant information (Hawkin et al., 2001).

Information from autonomous image agents and organic image agents is found to be more important than information from induced image agents; nonetheless, all three types of information sources are found to have a significant influence on respondents' choosing Thailand as a final medical-tourism destination (Tasci and Gartner, 2007). However, prospective medical tourists who perceive certain types of risk are found to rely more on information from particular organic image agents (such as personal doctors and insurance companies)(Beerli and Martin, 2004).

The study also finds that prospective medical tourists are particularly motivated to consider four destination attributes in choosing a medical-tourism destination: (i)

saving potential; (ii) quality of care; (iii) hygiene issues; and (iv) safety and security (Marlowe and Sullivan, 2007). In contrast, general tourism opportunities, which have been promoted in the past in seeking to attract medical tourists, appear to be neither important nor unimportant to the respondents in the present study.

When evaluating alternative destinations, medical tourists reject destinations that they perceive as providing an inadequate quality of care. However, the provision of medical care that exceeds this threshold level of quality does not necessarily enhance the appeal of a destination (Mansfeld, 1992, Marlowe and Sullivan, 2007). Indeed, the study finds that medical tourists are prepared to sacrifice some attributes (such as quality of care above the threshold level) for greater saving potential (Marlowe and Sullivan, 2007, Mansfeld, 1992). In this regard, the study finds that price-sensitive medical tourists consider Thailand more appealing than Singapore. Taken together, these findings suggest that Thailand should therefore optimise its appeal to prospective medical tourists by ensuring that there is an appropriate balance between the provision of a quality of care that meets threshold levels and prices that maximise saving potential.

Apart from quality of care and cost saving, the study also finds that the image of a destination with regard to hygiene and its image with regard to safety are also important in choosing a medical-tourism destination (York, 2008). Thailand should therefore take steps to ameliorate any negative aspects of its image with regard to safety and/or hygiene.

From the finding of this research, implications can be drawn for both theory and practitioners. The first implication for theory is about the information search behaviour, prospective tourists with high inherent risks tend to engage more in external information search as to minimise the perceived risks (Gursoy, 2003). Insignificant relationships between perceived risk and intention to engage in external information search suggest that there are other factors (such as complexity of the issues) that serve as antecedent of external information search behaviour as well. Therefore, when presenting complex information such as medical procedures,

healthcare service providers and medical tourism promotional agents should use presentation cues instead of core contents about the procedures.

The second implication for theory is about reliance of information sources of medical tourists, the finding suggests that prospective medical tourists rely on all three types of information sources, induced, autonomous, and organic image agents, in combination. In medical tourism destination choice situation which is considered a risky decision, prospective medical tourists tend to rely on information from particular sources including personal doctor and insurance companies.

The third implication for theory concerns destination attributes salient to medical tourism destination choice. Quality of medical care, the most important criterion, is a non-compensatory decision rule meaning that destinations that are perceived as failing to deliver care of an expected level tend to be rejected. Saving potential, the second most important criterion, is a compensatory decision rule meaning that prospective medical tourists find a destination more appealing as it offer a greater saving potential and vice versa. Other criteria that are salient to medical tourism destination choice are hygiene level of a destination as well as its safety and security.

The first implication for practitioners is related to the use of information source to promote a destination for its medical tourism sector. The finding suggests that tourism promotion practitioners should engage in both overt and covert marketing communication activities. Besides, as medical tourists tend to rely on information from personal doctors and insurance companies, promotional schemes that can provide insightful product information about medical services offered in the destinations such as familiarization trips.

The second implication for practitioners is related leverage points for promotional message. Tourism practitioners leverage the quality of care according to the acceptable standard of developed countries, as well as saving potential while communicating that the destinations are hygienic and safe.

There are also a number of limitations pertained to this research. First limitation concerns access to respondents. Due to the sensitive nature of the information and ethical concerns, the recruitment of respondents has been done with the assistance for gatekeepers who often choose not to cooperate. The second limitation concerns the potential bias from respondents who were approached by Tourism Authority of Thailand and Thai healthcare providers. Therefore, they are those who are already aware of Thailand as a potential medical tourism destination. The third limitation concerns that data collection period which took place well before the political instability. Therefore, the country's image about safety and security as well as the intention to visit might have been changed.

For those who would like to conduct the research in the area of medical tourism should conduct the research on each source markets as each of them has their own healthcare system. The future research should explore the images of Thailand in regards of the six studied attributes while comparing such images with other competing destinations. Besides, actual destination choice behaviour should also be observed if time and resource permit.

Table of contents

Declaration	I
Acknowledgement	II
Abstract	III
Table of Contents.....	VI
List of Tables.....	IX
List of Figures.....	X

Table of contents

Chapter 1: Introduction	I
1.1 Background to the study.....	2
1.2 Research question, theoretical framework, and hypotheses	6
1.2.1 Research question.....	6
1.2.2 Research objectives	7
1.2.3 Theoretical framework.....	7
1.2.3.1 Medical tourism	7
1.2.3.2 Destination choice.....	8
1.2.3.3 Destination image.....	9
1.2.4 Hypotheses.....	11
1.3 Justification for the study	12
1.3.1 Potential economic significance of medical tourism to Thailand.....	13
1.3.2 Lack of research into the whole destination choice profess of medical tourists	14
1.4 Methodology.....	14
1.4.1 Population for the study.....	14
1.4.2 Preliminary assessments of survey instrument.....	15
1.4.3 Data collection and sample.....	15
1.4.4 Data processing.....	16
1.5 Definition of terms.....	16
1.5.1 Health locus of control.....	16
1.5.2 Product familiarity.....	16
1.5.3 Perceived risks.....	17
1.5.4 Destination image.....	17
1.6 Delimitation of the study.....	17
1.7 Outlines of the thesis.....	18
1.8 Conclusion.....	19
Chapter 2: Review of the literature.....	21
2.1 Introduction.....	21
2.2 Medical tourism.....	23
2.2.1 Definition and nature of medical tourism.....	23
2.2.2 Demand and supply factors in medical tourism.....	24
2.2.3 Motivations of prospective medical tourists.....	27
2.2.4 Marketing of medical tourism.....	29
2.2.5 Concerns about medical tourism.....	33
2.2.6 Medical tourism in Thailand.....	37
2.3 Destination Choice.....	40
2.3.1 Involvement and destination choice.....	40
2.3.2 Motivation and destination choice.....	43
2.3.3 Information search and destination choice.....	45
2.3.4 Evaluation of alternative destinations.....	50
2.4 Destination image.....	56
2.4.1 Definition of destination image.....	56
2.4.2 Role of destination image in choice of destination.....	57

2.4.3 General Characteristics of a destination image.....	60
2.4.3.1 Complex nature.....	60
2.4.3.2 Multiple nature.....	61
2.4.3.3 Relativistic nature.....	61
2.4.3.4 Dynamic nature.....	61
2.4.4 Components of destination image.....	62
2.4.4.1 Induced components of destination image.....	64
2.4.4.2 Organic components of destination image.....	66
2.4.4.3 Autonomous components of destination image.....	67
2.4.4.4 Influence of various image agents.....	67
2.4.5 Influence of recipient's characteristics.....	68
2.5 Summary of medical tourism, destination image, and destination choice.....	69
2.5.1 Motivation of medical tourists.....	70
2.5.2 Information search by medical tourists.....	70
2.5.3 Destination image formation by medical tourists.....	71
2.5.4 Evaluation of alternative medical tourism destinations.....	72
2.6 Research questions and hypotheses.....	75
Chapter 3: Research Methodology.....	77
3.1 Introduction.....	77
3.2 Overview and justification of research paradigm.....	77
3.3 Research Design.....	80
3.3.1 Definition and types of research design.....	80
3.3.2 Survey as major data-collection method.....	82
3.3.3 Survey design.....	82
3.3.3.1 Types of variables and variables.....	83
3.3.3.2 Individual variables.....	85
3.3.3.3 Validity and reliability of scales.....	101
3.4 Survey administration and sampling methods.....	102
3.4.1 Target population.....	103
3.4.2 Sampling frame.....	103
3.4.3 Sampling methods.....	104
3.4.4 Sampling size.....	106
3.4.5 Survey administration.....	107
3.5 Data analysis.....	110
3.5.1 Data preparation and coding.....	110
3.5.2 Selection of statistical technique.....	111
3.6 Ethical Considerations.....	111
3.6.1 Principle 1: Dignity and respect.....	112
3.6.2 Principle 2: Literature review.....	112
3.6.3 Principle 3: Benefits and risks.....	112
3.6.4 Principle 4: Voluntary and informed participation.....	113
3.6.5 Principle 5: Public and informative research.....	114
3.7 Conclusion.....	114
Chapter 4: Data analysis.....	115
4.1 Introduction.....	115
4.2 Data collection process.....	116
4.2.1 Pilot study.....	116
4.2.2 Data collection for the main study.....	119
4.3 Profiles of respondents.....	119
4.4 Descriptive analysis of variables.....	122
4.4.1 Health locus of control.....	123
4.4.1.1 Internal health locus of control.....	123
4.4.1.2 Chance locus of control.....	124
4.4.1.3 People health locus of control.....	125
4.4.2 Attitude towards health-care system in home country.....	126

4.4.2.1 Attitude towards cost of medical care.....	126
4.4.2.2 Attitude towards waiting time and procedure.....	127
4.4.3 Availability of desired medical treatment in home country.....	128
4.4.4 Motivation to engage in medical tourism.....	128
4.4.5 Medical tourism destination attributes.....	129
4.4.5.1 Quality of care.....	129
4.4.5.2 Saving potential.....	130
4.4.5.3 Safety and security issues.....	131
4.4.5.4 Tourism Opportunity.....	132
4.4.5.5 Hygiene issues.....	133
4.4.5.6 Accessibility of destination.....	134
4.4.6 Level of product familiarity.....	135
4.4.6.1 Familiarity with procedures.....	135
4.4.6.2 Familiarity with Thailand as a medical tourism destination.....	135
4.4.7 Search behaviour.....	136
4.4.8 Information sources.....	136
4.4.8.1 Induced image agents.....	136
4.4.8.2 Autonomous image agents.....	137
4.4.8.3 Organic image agents.....	138
4.4.9 Perceived risk.....	139
4.4.9.1 Functional risk.....	139
4.4.9.2 Financial risk.....	139
4.4.9.3 Health risk.....	140
4.4.9.4 Physical risk.....	140
4.4.9.5 Satisfaction risk.....	140
4.4.9.6 Psychological risk.....	141
4.4.9.7 Political risk.....	141
4.4.9.8 Social risk.....	141
4.4.9.9 Time risk.....	141
4.4.10 Consideration set.....	142
4.4.11 Images of hygiene level of potential destinations.....	142
4.4.11.1 Image of hygiene level of Thailand.....	143
4.4.11.2 Image of hygiene level of Malaysia.....	143
4.4.11.3 Image of hygiene level of Singapore.....	143
4.4.11.4 Image of hygiene level of India.....	143
4.4.12 Image of safety and security of potential destinations.....	144
4.4.12.1 Image of safety and security of Thailand.....	144
4.4.12.2 Image of safety and security of Malaysia.....	144
4.4.12.3 Image of safety and security of Singapore.....	144
4.4.12.4 Image of safety and security of India.....	145
4.4.13 Intention to visit.....	145
4.4.13.1 Visit intention to Thailand.....	145
4.4.13.2 Visit intention to Malaysia.....	146
4.4.13.3 Visit intention to Singapore.....	146
4.4.13.4 Visit intention to India.....	146
4.5 Hypothesis testing.....	147
4.5.1 Subsidiary research question 1.1.....	147
4.5.2 Subsidiary research question 1.2.....	151
4.5.3 Subsidiary research question 1.3.....	158
4.5.4 Summary of hypothesis testing.....	163
4.6 Conclusion.....	165
Chapter 5: Conclusion and Implication.....	166
5.1 Introduction.....	166
5.2 Research questions and hypotheses.....	166
5.2.1 Subsidiary research question 1.1.....	167

5.2.2 Subsidiary research question 1.2	170
5.2.3 Subsidiary research question 1.3.....	174
5.2.4 Restatement of the research question.....	177
5.3 Implications for theory.....	181
5.3.1 Tourists' external information search behaviour.....	181
5.3.2 Tourists' reliance on information source.....	182
5.3.3 Evaluation of alternative destinations.....	183
5.4 Implications for practitioners.....	185
5.4.1 Use of information sources.....	185
5.4.2 Leverage points for promotional message.....	186
5.5 Limitations of the study and implications for future research.....	187
5.5.1 Limitation to the study.....	187
5.5.2 Implications for future research.....	188
5.6 Conclusion.....	189
References.....	190
Appendix 1: Information sheet and survey questionnaire.....	199
Appendix 2: Item-to-total and inter-item correlations of composite variables.....	209

List of Tables

Table 1.1: Tourism arrivals in Thailand (2006-2007).....	3
Table 1.2: Number of international patients receiving services from Thai private hospitals (2001-2005).....	4
Table 1.3: Comparison of medical costs provided in Thailand, Singapore, India, and the USA.....	5
Table 1.4: Extensiveness of Healthcare Systems in Developed Countries.....	5
Table 2.1: Price comparison of surgical procedures in Malaysia and Australia.....	35
Table 3.1: Ontology, epistemology, and methodology of three research paradigms.....	80
Table 3.2: Summary of variables and measurement scales.....	84
Table 3.3: Items used to measure variable 1 (Health locus of control).....	86
Table 3.4: Items used to measure variable 2 (Attitude towards healthcare system in home country).....	87
Table 3.5: Questions asked to assess variable 3 (Available of desired medical treatment in home country).....	88
Table 3.6: Questions asked to assess variable 4 (Motivation to engage in medical tourism)...	90
Table 3.7: Items used to measure variable 5 (Importance of destination attributes).....	92
Table 3.8: Questions used to assess variable 6 (Product familiarity).....	94
Table 3.9: Items used to measure variable 8 (Importance of information sources).....	97
Table 3.10: Items used to measure variable 9 (Perceived risk).....	98
Table 3.11: Minimum and typical sample sizes for market research.....	107
Table 3.12: Advantages and disadvantages of modes of survey administration.....	109
Table 4.1: Modifications to questionnaire as a result of pilot study.....	118
Table 4.2: Demographic profile of respondents.....	120
Table 4.3: Objective(s) of travelling abroad for medical reasons.....	121
Table 4.4: Summary of descriptive analysis of composite variables.....	122
Table 4.5: Descriptive analysis of non-composite variable.....	123
Table 4.6: Medical tourism destinations of which respondents were aware.....	142
Table4.7: Factors that influence level of motivation of individuals to engage in medical tourism.....	148
Table 4.8: ANOVA of availability of desired medical treatment and motivation to engage in medical tourism.....	150
Table 4.9: Multiple linear regression of factors influencing motivation to engage in medical tourism.....	150
Table 4.10: Medical tourism destination attributes.....	152

Table 4.11: Analysis of variance of familiarity with medical procedures and confidence in choosing a medical tourism destination.....	153
Table 4.12: Kruskal-Wallis and Mann-Whitney U Test of confidence in choosing a destination and familiarity with Thailand as a medical tourism.....	154
Table 4.13: ANOVA of perceived risk and confidence in choosing a medical tourism destination.....	155
Table 4.14: Kruskal-Wallis test of perceived risk and confidence in choosing a medical tourism destination.....	155
Table 4.15: Correlations between perceived risk and information from insurance companies and personal doctors.....	156
Table 4.16: Mean scores of three image agents.....	157
Table 4.17: Correlations between information from medical tourism authorities and intention to visit Thailand.....	158
Table 4.18: Correlations between destination attributes and visit intentions.....	159
Table 4.19: Correlations between image of hygiene level and intention to visit.....	161
Table 4.20: Correlations between image of safety and security and intention to visit.....	162
Table 4.21: Summary of testing of hypotheses.....	163

List of figures

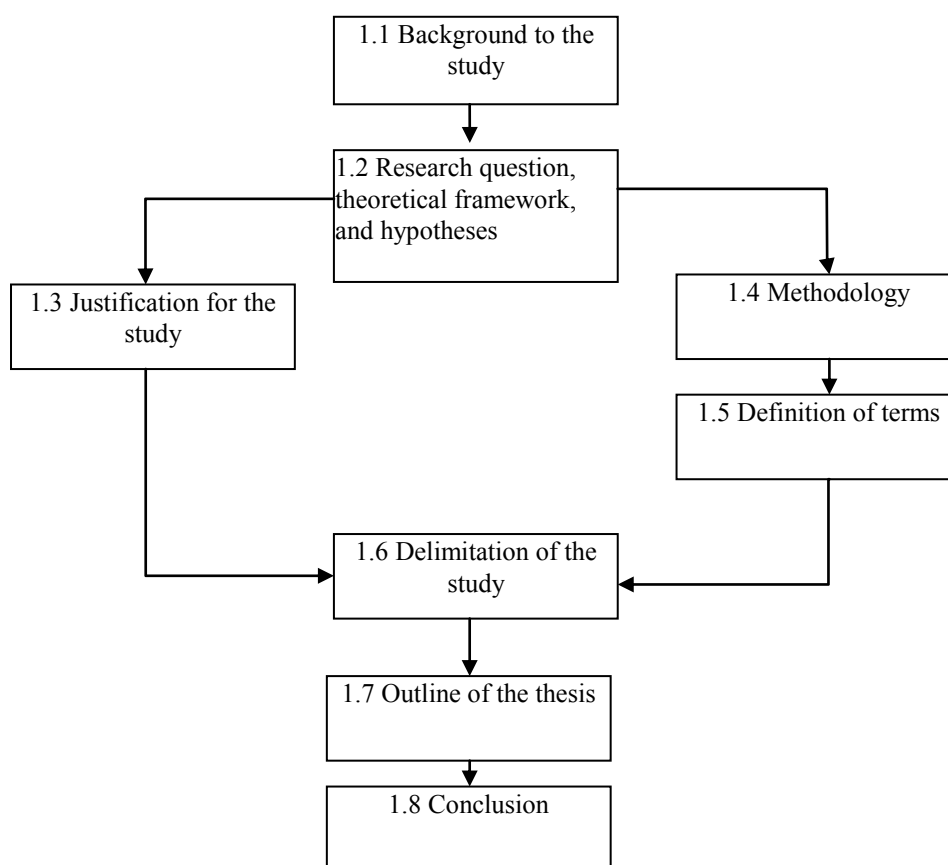
Figure 1.1: Structure of Chapter 1.....	1
Figure 1.2: Outline of the thesis.....	19
Figure 2.1: Outline of Chapter 2.....	22
Figure 2.2: Conceptual model of tourism destination choice.....	42
Figure 2.3: General model of traveller's leisure destination awareness and choice.....	55
Figure 2.4: Salient factors influencing medical tourism destination choice.....	74
Figure 4.1: Structure of Chapter 4.....	115
Figure 4.2: Medical tourism destination choice process model.....	163
Figure 5.1: Structure of Chapter 5.....	166

Chapter 1

Introduction

This study examines the tourism industry in Thailand, with particular emphasis on the role of medical tourism in sustaining growth in tourism despite a decline in the competitive edge previously enjoyed by Thailand in the leisure tourism market. Chapter 1 introduces the research question, theoretical framework, and hypotheses for the present study. In doing so, the chapter presents a synopsis of the relevant literature and a preliminary conceptual model for the study. The chapter also provides a justification of the research topic and an overview of the methodology. Finally, the chapter delimits the research temporally, geographically, and theoretically. The structure of the chapter is illustrated in Figure 1.1.

Figure 1.1: Structure of Chapter 1



1.1 Background to the study

Thailand has been one of the most popular tourism destinations in Asia for many years, with most tourists coming from East Asia and Europe (Monetary Policy Group, 2009). In 2008 the country received 14.6 million international tourists who generated AUD\$18,259.4 million in revenue to the Thai economy (Tourism_Authority_of_Thailand, 2008). Tourism has thus played a major role in the social and economic development of Thailand over several decades; indeed, during this period, the tourist sector has been the third-largest contributor to the gross domestic product (GDP) of Thailand, accounting for 17.1% of revenue and 15.3% of employment (Wangpaichitr, Jotikasthira, Atchariyapotha, Shoowong, Triamnak, Liammanee, and Tongjerm 2004)

Thailand has actively marketed itself as a destination in the leisure tourism market. The two major public agencies that are responsible for tourism promotion are the Tourism Authority of Thailand and the newly established Ministry of Tourism and Sports (Wangpaichitr et al., 2004). As a result of this active promotion, Thailand has established itself as a preferred destination in both the leisure market and the business travel market. For example, in 2007 it was ranked eighth in the world in terms of tourists' awareness of potential destinations, fourth as a nightlife destination, seventh as a beach destination, eighth as a family destination, and tenth as a destination for meeting and conferences (Future_Brand_Index, 2007).

Despite this success, Thai tourism has been negatively affected in recent years by several adverse factors—including internal political instability, disease epidemics, natural disasters, and international conflicts with neighbouring countries (Monetary Policy Group, 2009). In particular, internal political tensions led to a blockade of the Suvarnabhumi and Don Muang airports, which resulted in a significant contraction in tourist numbers in the second half of 2008 (Monetary Policy Group, 2009). In response to these developments, the Thai government has sought to sustain tourism by actively working with the private sector to promote domestic tourism to compensate for the loss of revenue that has resulted from a sharp drop in international arrivals (Monetary Policy Group, 2009).

Coincidentally, these difficulties in attracting tourists have caused Thailand to lose its competitive edge as an increasing number of emerging destinations have stimulated intense

competition among potential destinations (Wangpaichitr et al., 2007). Against this background, Table 1.1 reports tourism arrivals in Thailand for the years 2006 and 2007.

Table 1.1: Tourism arrivals in Thailand (2006 and 2007)

Countries of residence	Tourism arrivals (tourists)			Length of stay		
	2006	2007	Percentage change (2006 to 2007)	2006	2007	Change in length of stay (2006 to 2007)
East Asia	7,942,143	7,981,205	+0.49	5.70	6.02	+0.32
ASEAN	3,556,359	3,755,554	+5.60	5.26	5.45	+0.19
Europe	3,321,795	3,689,770	+11.08	14.30	14.86	+0.56
North America	825,118	817,564	-0.92	13.07	13.76	+0.69
South Asia	605,236	685,574	+13.27	7.10	6.94	-0.16
Oceania	627,246	731,283	+16.59	11.01	11.97	+0.96
Middle East	405,856	453,891	+11.84	8.62	9.48	+0.86
Africa	94,408	1,4,941	+11.16	8.83	8.93	+0.10
Total	13,821,802	14,464,288	+4.65	8.62	9.19	+0.57

Source: (Office of Tourism Development, 2009)

As can be seen from Table 1.1, Thailand managed to increase both the number of tourists and their average length of stay from 2006 to 2007. However, the increase in revenue was only 1.80%, compared with a 4.65% increase in the absolute number of tourists. This can be taken as a sign of a ‘mature destination’, which typically attracts lower-paying tourists (Plog, 1974, Monetary Policy Group, 2009). Thailand has therefore sought to enhance both numbers and revenue by reducing its dependence on leisure tourism and diversifying its tourist market to include other types of travellers—such as business travellers (including convention and exhibition travel), as well as medical tourism. The latter is the subject of interest for the present study.

Thailand has noted the increasing number of people from developed countries who seek to receive medical treatment abroad because medical expenses in their home countries are so high and waiting lists are often long (Awadzi and Panda, 2005). As a consequence, many developing countries, including Thailand, have recognised the potential of this market and are seeking to capitalise on advances in their own medical services and their inherent cost advantages compared with developed economies. Thailand has thus envisaged itself as a medical tourism hub of Asia and has officially placed this aspiration on its national agenda

(Office of the Economic and Social Development Board, 2006). In this regard, various government entities have been increasingly cooperating with private health-care providers to promote the country in the international medical tourism market.

As a consequence of these developments, the number of foreign patients being treated by Thai health-care providers has increased steadily in recent years. As can be seen from Table 1.2, the number of foreign patients who received treatment in Thai private hospitals increased significantly every year from 2001 to 2005. This increase has been attributed to the high quality of care offered by highly trained doctors and nurses, the use of sophisticated medical technologies, and a high level of hospitality offered to clients (Ramirez de Arellano, 2007). In addition, the cost of medical treatment in Thailand is significantly lower than the cost of similar treatment in developed economies. As a consequence, individuals from developed countries who are uninsured, underinsured, or wish to receive uninsurable medical procedures have been actively seeking opportunities to receive medical treatment overseas where the cost is lower and the waiting time is significantly shorter (Moody, 2007, Awadzi and Panda, 2005). Table 1.3 compares the cost of medical treatment provided in Thailand, Singapore, and the USA while Table 1.4 reports the extensiveness of healthcare systems in a range of developed countries.

Table 1.2: Number of international patients receiving service from Thai private hospitals (2001–2005)

Nationality	Number of international patients					Expansion rate (%)			
	2001	2002	2003	2004	2005	2001/02	2002/03	2003/04	2004/05
Japan	118,170	131,584	162,909	247,238	185,616	11.35	23.81	51.76	-24.92
USA	49,253	59,402	85,292	118,771	132,239	20.61	43.58	20.61	43.58
South Asia	34,857	47,555	69,574	107,627	98,308	34.43	46.30	54.69	-8.66
Britain	36,778	41,599	74,856	95,941	108,156	13.11	79.95	28.17	12.73
Middle East	N/A	20,004	34,704	71,704	98,451	N/A	73.49	104.73	38.56
ASEAN	N/A	N/A	36,708	93,516	74,178	N/A	N/A	154.76	-20.68
Taiwan/China	26,893	27,438	46,624	57,051	57,279	2.03	69.92	22.36	0.40
Germany	19,057	18,923	37,055	40,180	42,180	-0.70	95.82	8.43	6.52
Australia	14,265	16,479	24,228	35,092	40,161	15.52	47.02	44.84	14.44
France	16,102	17,679	25,582	32,409	36,117	9.79	44.70	26.69	11.62
South Korea	14,419	14,887	19,588	31,303	26,517	3.18	31.67	59.81	-15.12
Scandinavia	N/A	N/A	19,851	20,990	22,921	N/A	N/A	5.74	9.20
Canada	N/A	N/A	12,909	18,188	8,177	N/A	N/A	40.55	0.18
Eastern Europe	N/A	N/A	8,634	6,728	6,120	N/A	N/A	-22.08	-9.04
Others*	220,367	234,460	315,018	127,054	302,834	6.40	34.36	-59.67	138.25
TOTAL	550,161	630,973	973,532	1,103,095	1,249,984	14.51	54.53	13.31	13.21

Adapted from Department of Export Promotion, Ministry of Commerce, Thailand

* Some private hospitals did not collect data by nationality

Table 1.3: Comparison of medical treatment costs provided in Thailand, Singapore, India, and the USA

Procedure	USA insurer's cost	USA retail price	India	Thailand	Singapore
Angioplasty	28,058.10– 40,528.37	57,262– 62,506.34	12,007.43	14,190.60	14,190.60
Gastric bypass	30,255.46– 43,701.60	52,382.98– 75,664.30	12,007.43	16,373.77	16,373.77
Heart bypass	59,754– 86,312.71	133,630.20– 193,030.43	10,915.85	13,099.02	21,831.70
Heart valve replacement	77,940.26– 112,581.71	173,917.86– 251,215.18	10,370.06	11,461.64	14,190.60
Hip replacement	19,995.26– 28,825.48	47,789.59– 69,029.65	9,824.26	11,461.64	14,190.60
Hysterectomy	10,469.36– 15,122.82	22,285.80– 32,189.75	3,165.60	4,912.13	N/A
Knee replacement	19,241.37– 27,793.94	44,326.01– 64,078.22	9,278.47	10,915.85	14,190.60
Mastectomy	10,669.15– 15,411	25,880.39– 37,382.42	8,186.89	9,824.26	13,535.65

Note: All costs expressed in Australian dollars (AUD\$) converted from USD\$ at rate of AUD\$1.09158 per USD\$1.00

Source: (Unmesh, Baker, Montlake, Daniels, and Holmes, 2006)

Table 1.4: Extensiveness of Healthcare Systems in Developed Countries

Country	Life Expectancy	Infant Mortality	Physician per 1000 people	Nurses per 1000 people	Per capita expenditure on health (USD)	Healthcare costs as a percent of GDP	% of government revenue spent on health	% of health costs paid by government
Australia	80.5	5.0	2.47	9.71	2,519	9.5	17.7	67.5
Canada	80.5	5.0	2.14	9.95	2,669	9.9	16.7	69.9
France	79.5	4.0	3.37	7.24	2,981	10.1	14.2	76.3
Germany	80.0	4.0	3.37	9.72	3,204	11.1	17.6	78.2
Japan	82.5	3.0	1.98	7.79	2,662	7.9	16.8	81.0
Sweden	80.5	3.0	3.28	10.24	3,149	9.4	13.6	85.2
UK	79.5	5.0	2.30	12.12	2,428	8.0	15.8	85.7
USA	77.5	6.0	2.56	9.37	5,711	15.2	18.5	44.6

Source: (Canadian Institute for Health Information, 2007)

Despite these impressive statistics, attracting medical tourists to developing countries is not without its challenges. Studies have suggested that the majority of people in many developed countries tend to perceive that developing countries do not have high standards of medical care and hygiene (Marlowe and Sullivan, 2007, Smith and Forgione, 2007). However, there has been little published research on the specific question of consumer behaviour in the context of medical tourism. As a consequence, managerial decisions on

medical tourism in host countries tend to be made on the basis of intuition and/or information from relatively unreliable non-research literature. Some reliable research literature has focused on the apparent motives of medical tourists in departing abroad for medical treatment—such as financial reasons, waiting times, and the unavailability of desired treatment in the prospective medical tourists' own countries of residence (Awadzi and Panda, 2005, Connell, 2006). However, these studies have not explored the *whole decision-making process* of prospective medical tourists.

Against this background, the present study examines the image of Thailand as a medical destination compared with its major competitors in the medical tourism market. In doing so, the study explores the various steps of the process of choosing a destination and the intentions of medical tourists in choosing Thailand as their proposed destination among its major competitors.

1.2 Research question, theoretical framework, and hypotheses

1.2.1 Research question

As discussed in Section 1.1, Thailand is seeking to utilise medical tourism to sustain its tourism industry and to realise its vision of becoming the 'medical hub' of Asia (Office of the Economic and Social Development Board, 2006). To do so, it has to attract as many medical tourists as possible by establishing a new image that is attractive to medical tourists, whose decision-making process regarding travel destinations is presumably somewhat different from that of leisure tourists.

Given that the current literature on medical tourism has focused only on certain aspects of the motivation of people regarding their desired medical treatment abroad and/or the capacity of destinations and foreign health-care providers to cater for their needs as medical tourists, it is apparent that Thailand requires a thorough understanding of the *whole process* by which medical tourists choose their destinations. The fundamental research question to be addressed by this study can therefore be posed as follows:

** What are the salient factors that influence the destination choice of medical tourists?*

This fundamental research question is addressed in detail by this study. The aim of the study is thus to identify the factors that influence the decision of prospective medical tourists regarding their choice of destination. The purpose of identifying these factors is to assist decision-makers in developing policies that will be successful in promoting medical tourism in Thailand. Subsidiary research questions to be addressed thus include:

- * How do people choose a destination to receive their desired medical treatment?
- * How do they perceive Thailand as a medical tourism destination?
- * What kind of information do they seek when deciding on their choice of destination?

In summary, this study is mainly concerned with the process of choosing a destination and the associated issue of destination image.

It is anticipated that the findings of this study will assist both the management of Thai health-care providers and government entities (such as the Tourism Authority of Thailand, the Ministry of Tourism and Sports, and the Department of Export Promotion) in promoting the country to international medical tourists. Given that destination marketing is a complex undertaking that involves a vast array of actors and influential factors (Hosany, Ekinici, and Uysal, 2007), the study will provide valuable insights into the consumer behaviour of medical tourists with regard to destination choice and destination image.

The study focuses only on Thailand, rather than its three main Asian competitors—Malaysia, India, and Singapore (Choo, 2002)—for two main reasons. First, the researcher is Thai, which provides obvious advantages in terms of personal knowledge of the issues involved and ease of access to relevant data. Secondly, because every destination has a distinct and established image, research on destination choice should always be destination-specific (Huybers, 2005).

1.2.2 Research objectives

In addressing the above research questions, the objectives of this research can be stated as follows:

- * to determine the salient factors that motivate people to engage in medical tourism;
- * to determine the factors that influence the information search of prospective medical tourists; and

* to specify criteria that prospective medical tourists use to evaluate alternative medical tourism destinations.

1.2.3 Theoretical framework

Full details of the theoretical framework of the study are provided in Chapter 2. For the present introductory purposes, the three main theoretical concepts relevant to the theoretical framework of this study are briefly introduced. These three concepts are: (i) *medical tourism*; (ii) *destination choice*; and (iii) *destination image*. Each of these is introduced (in brief) below; a fuller exploration of these concepts can be found in Chapter 2.

1.2.3.1 Medical tourism

According to Awadzi and Panda (2005), the term ‘_medical tourism’ refers to the offshore provision of medical services in combination with the other tourism opportunities by using comparative cost advantage as the leverage point. This definition of medical tourism assumes that prospective medical tourists are motivated by economic reasons in choosing to receive their desired medical treatment (both obligatory and elective) in overseas countries (Jones and Keith, 2006).

The trend towards such medical tourism has been made possible by the significant improvements that have occurred in the medical services of many developing countries in terms of facilities, equipment, and human resources; these developments have, in turn, been accelerated by the privatisation of the health-care sectors in these developing countries (Garcia-Altes, 2004, Awadzi and Panda, 2005).

According to Awadzi and Panda (2005), prospective medical tourists include: (i) the uninsured (those who choose not to insure against health-care costs because they perceive insurance policies to be too high); (ii) the underinsured (those whose insurance policies do not cover the expenses that they actually incur); and (iii) the uninsurable (those whose health conditions and therapies do not meet the criteria for insurance policies in their country of residence). People in these three categories are more likely to search for alternatives in countries where costs are lower (Awadzi and Panda, 2005, Marlowe and Sullivan, 2007).

1.2.3.2 Destination choice

The choice of a destination is a ‘high-involvement’ decision associated with a high level of risk (Jang and Cai, 2002). Prospective tourists typically apply significant mental effort in making a destination decision in order to reduce the level of perceived risk (Zaichkowsky, 1985, Hawkin et al., 2001).

Several authors have noted that the choice of a destination is primarily determined by the tourist’s *motivation* to travel; in other words, a destination is chosen to satisfy the particular motivation of a given tourist (Mansfeld, 1992, Um and Crompton, 1990). In the case of medical tourists, the motivation is to find the desired medical treatment of requisite quality at lower cost. The whole destination choice process in medical tourism is therefore determined by these two parameters of *quality* and *cost*.

In evaluating alternative destinations, prospective tourists utilise certain so-called ‘decision rules’ (Hanlan et al., 2006, Mansfeld, 1992). Such ‘decision rules’ can be categorised into two types: (i) compensatory rules; and (ii) non-compensatory rules (Mansfeld, 1992, Purdue and Meng, 2006). In the case of medical tourists, the first parameter noted above (quality of care) can be classed as a ‘non-compensatory rule’, whereas the second parameter (lower costs) can be categorised as a ‘compensatory rule’.

To reduce the level of perceived risk, prospective tourists engage in both an *internal* information search and an *external* information search (Gursoy, 2003). An internal information search is based on prior knowledge of alternative destinations (Gursoy and McCleary, 2004); if such prior knowledge enables prospective tourists to make a decision on a destination with confidence, they tend not to engage in an external information search (Wirtz and Mattila, 2003, Gursoy, 2003). External sources of information can be broadly categorised into four groups: (i) travel professionals; (ii) word-of-mouth information; (iii) marketing communication; and (iv) destination-specific literature (Baloglu and McCleary, 1999). According to Bieger and Laesser (2004), prospective tourists who are making a riskier destination choice tend to rely on information from travel professionals. However, in the case of medical tourists, it is more likely that they would tend to rely on word-of-mouth information from doctors and insurance companies, rather than information from other external sources.

1.2.3.3 Destination image

The third theoretical concept of importance to this study is *destination image*, which refers to the attitudes, impressions, beliefs, knowledge, prejudices, imagination, and thoughts that potential tourists hold with respect to destinations (Echtner and Ritchie, 1993, Reynold, 1965, Hawkin et al., 2001, Belch and Belch, 2001, Gallarza et al., 2002).

Destination image can be understood as a holistic image of a destination's attributes as determined by the prospective tourists' motivation to travel (Chon, 1991, Purdue, 2000). Such a destination image plays a critical role in destination choice; indeed, several authors have contended that, given a certain motivation to travel, the chosen destination is likely to be the one that portrays the most positive image with regard to the tourist's activities of interest (given equivalent levels of facilitating elements) (Purdue and Meng, 2006, Tasci and Gartner, 2007).

Because motivation determines the formation of a destination image, any inconsistencies between the elements of a destination image and the tourist's desires creates difficulties for the marketing of a given destination. In the case of medical tourism, if Thailand is to be successful as a preferred destination, it must be perceived: (i) as being advanced in medical technologies; and: (ii) as offering value for money. Any elements of the destination image that are not consistent with these parameters are unlikely to project a positive influence on the destination choice of prospect medical tourists.

Destination image is formed from the information that prospective tourists receive from a variety of information sources. According to Tasci and Gartner (2007), these sources can be categorised into three types: (i) induced image agents; (ii) autonomous image agents; and (iii) organic image agents. The first type of information utilised in forming a destination image—that provided by induced image agents—refers to the marketing communication activities (both overt and covert) of destinations or service providers (Beerli and Martin, 2004). Although induced images can suffer from distortion and a lack of credibility, they do play a role in influencing or confirming previously held images in the long-term memories of prospective tourists as they actively seek external information in the high-level mental effort

required to evaluate destinations (Um and Crompton, 1990, Zaichkowsky, 1985, Sonmez and Graefe, 1998).

The second type of information utilised in forming a destination image—that provided by organic image agents—refers to social channels that provide information about a destination on an informal basis (including idiosyncrasies about the destination) (Beerli and Martin, 2004). In this regard, word-of-mouth communication exerts a strong normative influence through peer pressure and reference groups (Na et al., 2006). Information from organic image agents also includes first-hand experience that makes a previously held image more realistic and nuanced—thus providing the potential tourist with greater confidence in making a destination choice (Tasci and Gartner, 2007).

The third type of information utilised in forming a destination image—that provided by autonomous image agents—refers to information that is outside the control of destinations, including news, documentaries, and guidebooks (Beerli and Martin, 2004). Through random exposures to information about a destination from such autonomous image agents, prospective tourists can actually come to hold an image about a destination long before they are even motivated to travel.

In general, information from organic and autonomous image agents tends to be more credible and trustworthy than information from induced image agents (Hawkin et al., 2001, Tasci and Gartner, 2007). In particular, information from organic and autonomous image agents that refer to the aspects of a destination that are directly relevant to the activities of interest to the prospective tourist exert the strongest influence in image formation (Sonmez and Sirikaya, 2002). In the case of medical tourists, who often lack previous knowledge about a potential medical tourism destination, information from autonomous image agents regarding such matters as political unrest, natural disasters, and hygiene levels can have a strong influence on image formation (Chon, 1991, Beerli and Martin, 2004).

1.2.4 Hypotheses

On the basis of the theoretical framework briefly presented above, twelve hypotheses are proposed by the present study to address the research question posed below:

** What are the salient factors that influence the destination choice of medical tourists?*

The twelve hypotheses that seek to address this research question can be stated as follows. (Please note that certain undefined terms in the hypotheses are explained below in subsection 1.5.)

- * Hypothesis H1:* People who engage in medical tourism tend to possess a high level of internal health locus of control.
- * Hypothesis H2:* People who engage in medical tourism think that medical care in their countries of residence is financially unaffordable.
- * Hypothesis H3:* People engage in medical tourism because they do not want to wait to receive medical treatment in their countries of residence.
- * Hypothesis H4:* People engage in medical tourism because the desired medical treatment is not available in their countries of residence.
- * Hypothesis H5:* When choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential cost saving than attributes about tourism opportunities.
- * Hypothesis H6:* Prospective medical tourists with a low level of familiarity tend to engage in a high level of external search.
- * Hypothesis H7:* Prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies.
- * Hypothesis H8:* Induced image produced by relevant medical tourism authorities is important in choosing a destination for medical tourism.
- * Hypothesis H9:* Quality of care is a non-compensatory rule; that is, prospective medical tourists tend to avoid destinations that are perceived to be inferior in terms of the quality of medical care that they provide.
- * Hypothesis H10:* Potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain attributes for a greater potential for cost saving.
- * Hypothesis H11:* The image of a destination with regard to hygiene has a positive effect on medical tourists' intention to visit.

* *Hypothesis H12*: The image of a destination with regard to safety and security has a positive effect on medical tourists' intention to visit.

These twelve hypotheses are tested according to the methodology described in Chapter 3.

1.3 Justification for the study

Although medical tourism is increasing and has become a significant potential source of foreign revenue to developing countries, the relative newness of the phenomenon means that the number of studies on the topic remains limited. The justification for the present study of medical tourism in the Thai context thus rests on two main reasons: (i) the potential economic significance of medical tourism for Thailand; and (ii) the general lack of research on destination choice in medical tourism.

1.3.1 Potential economic significance of medical tourism to Thailand

As noted above, signs of decline in tourism to Thailand have prompted the country to diversify its market towards alternative forms of tourism other than the leisure market. Table 1.1 shows that Thailand attracted 13.82 million international tourists in 2008, which represented an increase of 4.65% from 2007; moreover, the average length of stay increased by 0.57 days to 9.19 days (Office of the Economic and Social Development Board, 2006). However, in the same period, the increase in revenue from foreign tourists was AUD\$19.19 billion, which represented an increase of only 1.80% compared with 2007 (Tourism_Authority_of_Thailand, 2008). These statistics suggest that the Thai tourism sector is in a state of decline as it is apparently now attracting a lower-paying clientele (Plog, 1974).

Thai medical services are among the most developed in Asia; indeed, continuous development of these services has meant that they are now comparable with the standards of medical services in developed countries (Harryono et al., 2006). An increasing number of Thai private hospitals with sophisticated medical facilities now offer high-quality medical treatment by certified doctors, together with a high nurse-to-patient ratio (Awadzi and Panda, 2005, Harryono et al., 2006, Ramirez de Arellano, 2007). In response to a shrinkage in local demand that resulted from the Asian economic crisis of the late 1990s, these high-quality private hospitals began to shift their focus to medical tourism markets from foreign countries.

As shown in Table 1.2, the number of foreign patients in Thailand has continuously increased until, in 2005, the country received 1.25 million medical tourists. These tourists generated AUD\$1.25 billion in revenue (Service Promotion Department, 2007). Medical tourism has therefore been included in the Thai national agenda as an industry that has the potential to make a significant contribution to national competitiveness (Office of the Economic and Social Development Board, 2006).

To realise the potential of medical tourism in terms of the national agenda, it will be necessary for the government sector and the private sector to work collaboratively in attracting medical tourists by offering the right product and establishing an appealing destination image. A thorough understanding of the behaviour of medical tourists is an indispensable aspect of this endeavour. The findings of the present study will thus assist Thai decision-makers at all levels to fulfil their roles in seeking to outperform competing destinations in attracting medical tourists.

1.3.2 Lack of research into the whole destination choice process of medical tourists

Because the phenomenon of people from developed countries travelling to developing countries for medical reasons is relatively new, no quantitative research has yet been conducted into the destination-choice behaviour of medical tourists. Most of the studies that have been conducted in this area have examined the motivation of medical tourists and/or the capacity of potential destinations (Vadanabha, 2007, Ramirez de Arellano, 2007, Norra, 2007, Harryono et al., 2006). However, no research has covered the *whole decision-making process* of prospective medical tourists in choosing a destination for their medical tourism. The present study, which does cover the whole decision-making process, should therefore prove to be very useful for both destination-promotion organisations and health-care providers in performing their marketing functions in Thailand.

1.4 Methodology

As noted above, the aim of this research was to identify the salient factors that influence the destination choice of prospective medical tourists to Thailand. In pursuit of this objective, a quantitative web-based questionnaire survey, complemented by an optional postal-mail survey, was adopted as the methodology for the study. The methodology is described in full in Chapter 3; for the present introductory purposes, a broad outline of the methodology follows.

1.4.1 Population for the study

It was decided that persons eligible to be participants in this research would be those who: (i) have an interest in travelling abroad for medical reasons; and (ii) are proficient in the English language.

Given that the first criterion—an interest in medical tourism—is not directly observable, it was decided that information-search behaviour about medical tourism would be adopted as a proxy for indicating a person's interest in medical tourism. The first criterion for the population for this study was therefore fulfilled by people who have acquired information about medical tourism from travel agencies specialising in medical tourism and/or the sales offices of Thai medical health-care providers in selected foreign countries.

With regard to the second criterion—proficiency in English—it was decided, for reasons of convenience, to limit the population to only four countries in which large numbers of people are proficient in English (Australia, United Arab Emirates, Singapore, and SAR Hong Kong).

1.4.2 Preliminary assessments of survey instrument

Before administering the main survey, preliminary assessments of the reliability and validity of the proposed questions in the survey were undertaken by;

- * seeking a review of the questionnaire by two experts in medical tourism in Thailand;
- and

- * an online pilot study of 30 people selected by convenience in Australia.

In response to the feedback received from these preliminary assessments, some minor changes were made to the questionnaire.

1.4.3 Data collection and sample

The questionnaires for the actual survey were distributed to eligible respondents with assistance from gatekeepers who did not provide the researcher with the names and/or contact details of potential respondents; the researcher was thus unable to access these people directly.

Online surveys offer advantages in terms of speed and response rate, and it has been argued that such surveys are especially appropriate in developed economies where internet access rate is high (Davis, 2005, Cabanoglu et al., 2001). Once the online survey had been completed, the data were automatically transferred to a database provided by the survey software package. Complementing the internet survey, the same tourism and health-care offices and agencies (noted above) were also provided with hard copies of the written survey, along with pre-paid postage envelopes, for use by any potential respondent who preferred to complete the survey in this format, rather than using the online version.

A sampling size of 300 completed questionnaires was determined to be adequate for all the statistical analyses to be undertaken in this study (Maholtra, 1999, Manning and Munro, 2007). Incomplete questionnaires were assigned with a missing value, but clearly inadequate and/or inconsistent cases were disqualified (Maholtra, 1999).

1.4.4 Data-processing

After coding, outliers were identified by using box-plot and Mahanobis distance to ensure a normal distribution of responses (Manning and Munro, 2007). Scales were then transformed, as appropriate, in accordance with the nature of the items. Composite variables were then computed for further analysis using SPSS statistical software.

Statistical techniques adopted in this study included Pearson's correlation coefficient, analysis of variance, principal component analysis, and multiple linear regression (Manning and Munro, 2007). Full details of the statistical analyses used in the study are reported in Chapter 4.

1.5 Definition of terms

Full explanations of the terminology used in this thesis are provided in Chapter 2. However, for the present introductory purposes, the operational definitions of key terms used in the study are provided below.

1.5.1 Health locus of control

In accordance with Callaghan (1998), the term ‘health locus of control’ is understood in this study to refer to a person’s perception of their capacity to control their own health. The concept is comprised of three sub-concepts: (i) internal health locus of control; (ii) chance health locus of control; and (iii) people health locus of control (Wallston et al., 1994).

The significance of the concept for the present study is that ‘health locus of control’ has been shown to have an influence on the inclination of individuals to adopt certain health-related behaviour, including medical tourism (Moshki et al., 2007).

1.5.2 Product familiarity

In accordance with Gursoy and McClear (2004), ‘product familiarity’ is taken to refer to the perceived knowledge that individuals have about products, services, or destinations. Such product familiarity influences information-search behaviour because individuals who are familiar with activities and destinations tend to rely on the knowledge stored in their long-term memory to support their decision-making (Wirtz and Mattila, 2003).

1.5.3 Perceived risk

The term ‘perceived risk’ is taken to refer to a sense of loss associated with a decision and/or a cognitive conflict between expectation and outcome (Bieger and Laesser, 2004, Mitchell, 1999). The significance of perceived risk for the present study is that the risk inherent in any decision must be handled before the decision can be made (Bettman, 1973). To do so, decision-makers engage in an external information search with a view to reducing the perceived risk to a manageable level (Mitchell, 1999).

1.5.4 Destination image

In accordance with Echtner and Ritchie (1993), a ‘destination image’ is defined as a mental representation of the attributes and potential benefits of a given destination. In other words, a ‘destination image’ refers to what a person knows and feels about the capacity of a

destination to be a solution to a recognised problem (Hawkin et al., 2001, Purdue, 2000). Destinations with a more positive destination image have a greater likelihood of being chosen as a final destination (Purdue and Meng, 2006).

1.6 Delimitations of the study

Like all other research, the present study has certain practical delimitations that must be taken into account in interpreting the findings.

First, because the research is focused on Thailand, respondents are restricted to those who have acquired information about medical tourism in Thailand through offshore offices of the Tourism Authority of Thailand and/or the offices of Thai health-care providers. The study is therefore somewhat biased towards respondents who might have been interested in Thailand as a medical tourism destination.

Secondly, the survey questionnaire is framed with a focus on Thailand and its major competitor destinations. It should therefore be noted that prospective medical tourists might have felt constrained in making observations about other destinations of which they were aware.

Thirdly, the research is a descriptive study in which actual choice behaviour is not observed. The study therefore does not explore the influence of situational factors that might influence decisions about destination choice and intention to visit.

A fourth delimitation concerns access to respondents. Given that the study uses an online survey, the study can claim to reach only a fraction of potential respondents with the desired parameters. That is, not all prospective medical tourists were accessed.

Finally, the above-mentioned delimitations have implications for the development of variable measurement scales. The scales for measuring some variables were self-developed specifically for the unique circumstances of the present study, which might have led to some dimensions of the concepts being inadvertently overlooked.

1.7 Outline of the thesis

In general terms, the structure of this thesis reflects the study's objective of addressing the research question (subsection 1.2.1) through the testing of the hypotheses (subsection 1.2.4). The thesis is therefore structured into five chapters: (i) introduction; (ii) review of the literature; (iii) methodology; (iv) data analysis; and (v) conclusion and implications.

The present chapter has introduced the thesis by providing the background of the research, the research question, and brief descriptions of the theoretical framework, hypotheses, justification for the research, methodology, and delimitations of the study.

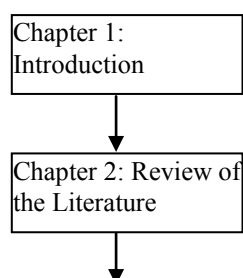
Chapter 2 discusses the concept of medical tourism, which serves as the context of this research, followed by consideration of the other two key theoretical concepts: destination choice and destination image. The chapter also presents the proposed model for the study, other relevant concepts, the research question, and the hypotheses.

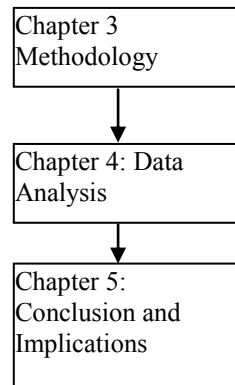
Chapter 3 presents the research methodology of the study. The chapter describes how each variable is measured, how data are collected, and how the sample is determined. The chapter also includes a discussion of the ethical issues associated with the research methodology.

Chapter 4 discusses data analysis. The chapter describes how the data are prepared, modified, and analysed in statistical terms. The results of the testing of the hypotheses are also reported in this chapter.

The final chapter restates the results of hypotheses testing in the context of a literature review. Implications for theory and practitioners are also provided. Finally, the limitations of the research are discussed while providing the implications for future research. Figure 1.2 illustrates the structure of the research.

Figure 1.2: Outline of the thesis





1.8 Conclusion

This chapter has provided the background for the present study by discussing: (i) the significance of tourism in general, and medical tourism in particular, for the Thai economy; and (ii) the need for more knowledge about the consumer behaviour of medical tourists with regard to choice of destination.

Justification for the research has also been provided, the research question to be addressed has been formulated, and the objectives of the study have been stated.

A summary of the major concepts in the theoretical framework of the study has been provided, and the hypotheses to be tested have been presented. The methodology of the study has been described, and the delimitations of the research methodology have been noted.

Finally, the chapter has described and presented the structure of the whole thesis.

Chapter Two

Review of the Literature

2.1 Introduction

Thailand's economy depends largely on tourism and its related industries. In 2006, the tourism sector generated AUD\$16,077 million in revenue from 13.2 million international visitors to Thailand (Tourism_Authority_of_Thailand, 2008). However, as a 'mature' tourist destination Thailand has recently begun to lose its competitiveness against emerging destinations that have more pristine environments and host communities—as shown by the decreasing average daily expenditure of international tourists to Thailand (Tourism_Authority_of_Thailand, 2008). As a consequence, Thailand is now attempting to differentiate itself from competing destinations (without indulging in intense price-cutting competition) by moving into alternative areas of tourism. These alternative areas include medical tourism, to which Thailand is well suited by virtue of its advanced medical services, comparative costs, and traditional Thai hospitality (Strategic and Marketing Magazine, 2007).

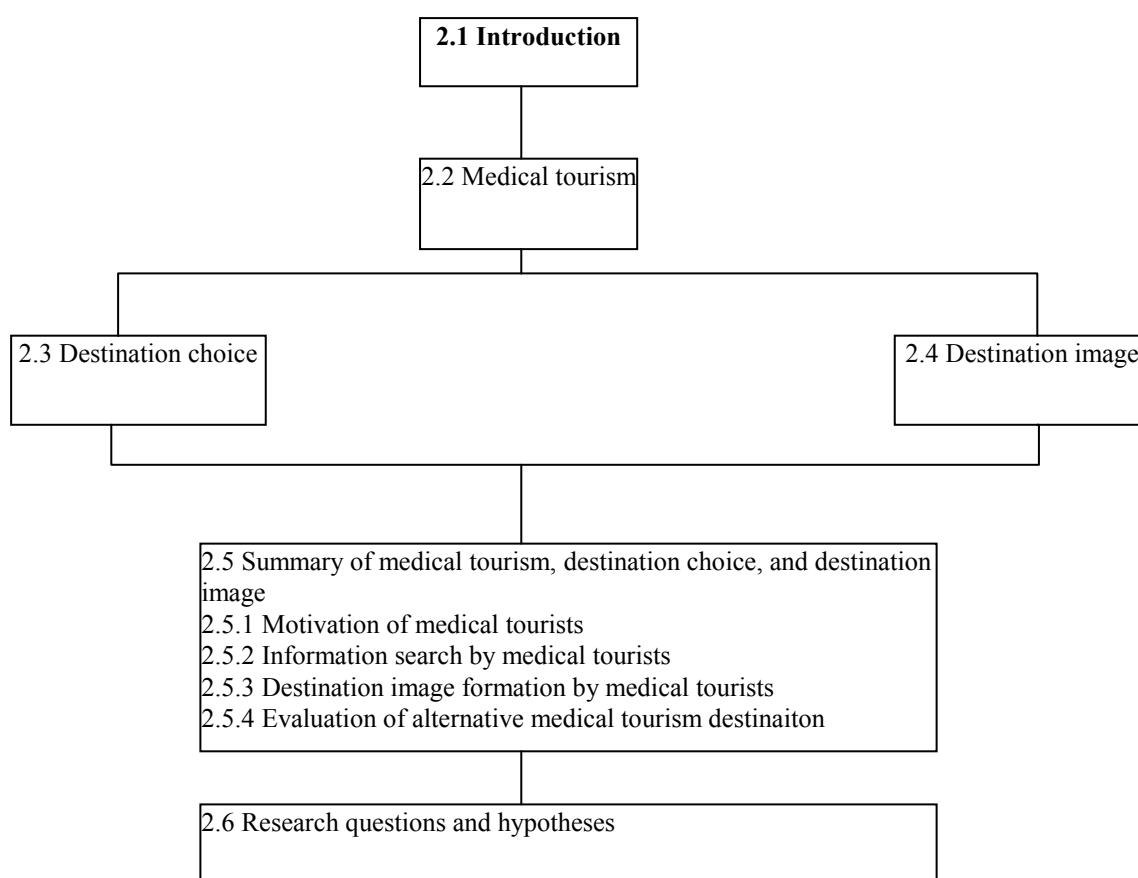
Because medical tourism is a relatively new segment of tourism for Thailand, it still requires considerable development. However, two of the key tourism agencies in Thailand, the Tourism Authority of Thailand and the Ministry of Tourism and Sports, have yet to integrate their efforts to promote the country as a medical tourism destination in the same way that they have successfully done in the past with the business and leisure tourism sectors (Future_Brand_Index, 2007, Rittichainuwat et al., 2001). This is, in large part, because the promotion of the country as a medical tourism destination poses novel challenges in aligning the destination image of Thailand with the motivations and decision-making processes of prospective medical tourists.

To provide a basis for the further development of Thailand as a medical tourism market, it is apparent that there is a need to understand the key behaviours of medical tourists, especially with regard to destination choice, which are likely to be fundamentally different from those of leisure tourists. In response to this need, the present study focuses on the destination choice of medical tourists, especially in terms of the influence of destination

image on that choice. The study thus attempts to identify the factors that determine how medical tourists choose a destination for their offshore medical treatment.

Against this background, Chapter 2 of the thesis presents a review of the literature dealing with the three main theoretical concepts relevant to this research topic: (i) medical tourism; (ii) destination choice; and (iii) destination image. The chapter also explores the relationships that exist among these main theoretical concepts within the context of Thai medical tourism. The outline of the chapter is illustrated in Figure 2.1

Figure 2.1: Outline of Chapter 2



2.2 Medical tourism

2.2.1 Definition and nature of medical tourism

From a destination perspective, medical tourism can be defined as the offshore provision of medical services, in combination with other conventional tourism products, by leveraging a comparative cost advantage (Awadzi and Panda, 2005, Percivil and Bridges, 2006). Destinations or countries that choose to pursue such medical tourism openly promote their health-care services and facilities, in addition to their other conventional tourism attributes (Marlowe and Sullivan, 2007).

From the perspective of the travellers, the aim of engaging in medical tourism is to obtain obligatory or elective medical treatment in a country other than their countries of residence (Connell, 2006, Jones and Keith, 2006, Percivil and Bridges, 2006). The term ‘obligatory treatment’ refers to urgent, unscheduled therapy for serious illnesses, whereas the term ‘elective treatment’ refers to scheduled non-essential therapies; in both cases, medical travellers choose to obtain treatment in a foreign country because the desired therapies are unavailable, illegal, costly, or associated with an unacceptable waiting time in the home countries (Jones and Keith, 2006, Strategic and Marketing Magazine, 2007)

Medical tourism is not a new concept. In ancient times people travelled to various spas, hot springs, and rivers seeking cures and/or rejuvenation (Goodrich, 1994). More recently, people from developing countries have travelled to developed countries seeking more sophisticated medical treatment (Awadzi and Panda, 2005). However, the contemporary trend is now in the opposite direction as an increasing number of patients from developed countries travel to developing countries to receive medical treatment.

This reversal of the older trend is mainly due to the increasing costs and other limitations of the health-care systems in Western countries (Marlowe and Sullivan, 2007, MacReady, 2007, Deloitte, 2008, McDowall, 2006). Moreover, in recent years, many developing countries have made significant advances in their medical services (Vadanabha, 2007). Doctors and nurses in these developing countries are increasingly well trained to international standards as medical education in these countries has adopted the methods and

requirements of Western medical education; in addition, many health professionals in developing countries have been trained abroad in Western universities (Awadzi and Panda, 2005). Another factor of importance in enhancing the standards of medical care in developing countries has been the large number of modern, privately owned facilities that have been established in these countries. These private clinics possess the latest technologies and are able to offer a range of complex medical procedures at lower cost than in developed countries (Garcia-Altes, 2004, M2Presswire, 2008). These developments, together with trade liberalisation and ease of international travel (Fletcher and Brown, 2002), constitute what Awadzi and Panda (2005) have termed the “third world advantage”.

2.2.2 Demand and supply factors in medical tourism

The *demand* for medical tourism comes from people in developed countries seeking medical care in developing countries for reasons of cost and availability (Awadzi and Panda, 2005, Moody, 2007). One of the fundamental reasons for this demand is the existence of regulatory constraints in most developed countries that forbid the presence of foreign operators and investment in the health-care sector, thus limiting the capacity of domestic health-care systems to supply services in terms of both infrastructure and human resources (Garcia-Altes, 2004). Moreover, these regulatory constraints lead to a lack of real competition in the health-care sector in many developed countries—which has the potential to increase the price of medical procedures and insurance premiums, lower the quality of services to consumers, and increase bureaucratic complexity (Connell, 2006, Deloitte, 2008). These capacity constraints and lack of competition cause inconvenience to prospective patients in many developed countries (Delinsky, 2005, Awadzi and Panda, 2005). Long waiting lists, high costs, and excessive bureaucracy tend to make the health-care systems in developed countries inaccessible to many people and increase demand for alternative sources of medical services (Garcia-Altes, 2004, Awadzi and Panda, 2005).

In addition to these restraints on supply in developed countries, there is a demographic trend in virtually all Western countries for people to live longer and seek better health. As a consequence, more people from a range of socio-demographic groups in these countries are actively seeking quality health-care services that are cost-effective and accessible (Caballero-

Danell and Mougomba, 2006, Garcia-Altes, 2004, Awadzi and Panda, 2005, Goulding and Shankar, 2004, Marlowe and Sullivan, 2007, Ramirez de Arellano, 2007). Ageing ‘baby boomers’ (those born soon after the end of World War II) have redefined the conventional view of the ‘elderly’ (Kotler and Keller, 2006). Despite their chronological age, baby boomers still live active lives and care about their appearance. These people, who often have high disposable incomes, are increasingly likely to consume aesthetic products and seek cosmetic services (Garcia-Altes, 2004, Kotler and Keller, 2006, Goulding and Shankar, 2004, Delinsky, 2005). Moreover, the increased demand for cosmetic services in Western countries is not restricted to the older generations; for example, ‘Botox’ injections have now become popular among young adults and teenagers (Healy, 2008). This greater demand for cosmetic surgery now pervades all age cohorts, but meeting such demand is usually outside the scope of government policies and insurance coverage. Prospective medical tourists thus choose to obtain overseas treatment (both obligatory and elective) because such treatments are unavailable or difficult to access (or even illegal) in their countries of residence (Jones and Keith, 2006).

In summary, the demand for medical tourism is driven by changing demographics, economic factors (fees and insurance costs), and the limited availability and accessibility of many medical services in developed countries.

On the *supply* side, the rapid developments in the medical services of various developing countries in terms of human resources and facilities represent an appealing alternative to prospective medical tourists (Connell, 2006). The medical competence of doctors and nurses in many developing countries is now comparable to developed countries as a result of ‘Westernised’ medical education in developing countries and an increasing trend for health professionals to undertake training abroad (Jones and Keith, 2006). The standards and outcomes of medical procedures offered in developing countries are now comparable to those pertaining in the medical tourists’ countries of residence (Jones and Keith, 2006). Therefore, people from developed countries are more confident in receiving medical treatments in developing countries.

The increasing privatisation of the health-care sector in developing countries has also enhanced the growth of medical tourism as both investment and the employment of highly

trained professionals continues to grow in the private sector (Awadzi and Panda, 2005, Connell, 2006, Ramirez de Arellano, 2007). The emergence of privately owned medical facilities with access to the most sophisticated medical technology has brought about a significant improvement in the standards of facilities (Connell, 2006, Goodrich, 1994, Department of Export Promotion (Jakarta Office), 2007). Although the cost of medical treatment in these privately owned facilities is much higher than the cost of similar treatment charged by state-owned organisations for domestic health-care services in developing countries, the overall lower cost of living in these countries (compared with developed economies) means that the relative costs incurred by medical tourists from developed countries is extremely competitive compared with costs they would incur for the same services in their home countries (Awadzi and Panda, 2005, Connell, 2006). Indeed, the comparative cost advantage in developing countries allows private health-care providers in these countries to design ‘pampering’ services that are very attractive to medical tourists (for example, in terms of relatively high nurse/patient ratios) while still remaining much cheaper compared to similar procedures in developed countries (Connell, 2006).

The effect of these demand-and-supply factors in medical tourism has been *facilitated* by significant changes in the global business environment in recent years. These changes include: increasing globalisation and trade liberalisation, enhanced communication through digital technologies, increasing economic deregulation in developing countries, and a greater propensity for Westerners to travel abroad (Awadzi and Panda, 2005, Fletcher and Brown, 2002).

As the demand for overseas medical treatment has increased, prospective medical tourists no longer perceive difficulties in travelling abroad. Higher levels of education, greater disposable income, and increased media exposure of foreign countries has increased the propensity of Westerners to travel to developing countries (Delinsky, 2005). These lifestyle and demographic changes in developed economies, together with the increasing ease of international air travel, have facilitated the demand for medical tourism.

Digital technology has also played a crucial role in enabling real-time communication and diffusion of information. This has meant that prospective medical tourists are more knowledgeable about medical procedures and the availability of various services to address

the health problems that they are facing (Awadzi and Panda, 2005, Caballero-Danell and Mougomba, 2006, Fletcher and Brown, 2002). In addition, digital technology has facilitated networking among both providers and consumers of health-care services across borders (Jones and Keith, 2006).

Free trade liberalisation and deregulation has also facilitated the flow of production factors across borders—including people, medical supplies, and therapeutic devices (Percivil and Bridges, 2006) (Fletcher and Brown, 2002)). The importation of medical supplies and devices has been facilitated by deregulation, and improved travelling logistics have made transportation of people and equipment quicker and more accessible (Fletcher and Brown, 2002, Lovelock et al., 2001).

In conclusion, significant changes in both demand and supply have created the potential for the development of a burgeoning health-care ‘industry’ in developing countries. This has been facilitated by free trade liberalisation, advances in communication, and more efficient transaction arrangements.

2.2.3 Motivations of prospective medical tourists

Medical tourists include a broad range of people who travel to receive medical treatment abroad. Apart from people from developed economies, medical tourists can also include the so-called ‘elite’ from developing countries and foreign expatriates residing in neighbouring countries (Ramirez de Arellano, 2007).

Prospective medical tourists include: (i) the *uninsured* (people who choose not to insure their health, usually because they cannot afford the insurance policies); (ii) the *underinsured* (those whose insurance policies do not cover the expenses that are really incurred when they receive medical treatment); and (iii) the *uninsurable* (those who do not meet the criteria to buy insurance policies or whose preferred medical treatment is unrecognised or prohibited in their own countries) (Moody, 2007, Awadzi and Panda, 2005, Marlowe and Sullivan, 2007, Connell, 2006, Cosh, 1997). Americans, in particular, are said to be susceptible to unexpected

and excessive medical and dental expenses (Pedersen, 2007, Marlowe and Sullivan, 2007, York, 2008).

Corporations are also one of the targets of medical tourism (Marlowe and Sullivan, 2007, Moody, 2007, Smith and Forgione, 2007). Many of these companies have to pay large medical bills as part of the fringe benefits they provide to their employees. In many cases these involve complicated and costly medical procedures. It can be attractive for these firms to refer employees who require complicated procedures to offshore medical service providers.

Retirees who choose to spend their lives as long-stay tourists in foreign countries can also be targeted as potential customers of medical tourism (Norra, 2007, Pedersen, 2007, Connell, 2006, Business Line (The Hindu), 2009). Some countries, such as Japan and Singapore, actually encourage their citizens to retire abroad, and these retirees often require medical care on a frequent basis (Connell, 2006).

The adoption of medical tourism by these various groups of people can be either preventive behaviour' or protection behaviour'(Carter and Kulbok, 2002). Individuals who engage in such preventive or protective health behaviours are motivated to do so by a variety of environmental factors (Carter and Kulbok, 2002). These include health locus of control , social support, income, education, and health status. In particular, health locus of control—which refers to an individual's perception of personal ability to control his or her health (Wallston et al., 1994, Moshki et al., 2007)—is important in the context of medical tourism. If a person believes that he or she has a high degree of control over personal health, that person is said to possess a high level of internal health locus of control'; such people are more motivated to engage in healthy behaviour (Wallston et al., 1994). Social support is also an important influence on an individual's motivation to engage in healthy behaviour; individuals who are satisfied with their social support are more likely to engage in health-enhancing activities (Callaghan, 1998). In general, the literature suggests that people who have an internal locus of control, good social support, a high level of education, and a large income are more likely to engage in healthy behaviours.

However, a desire to achieve and maintain good health does not fully explain the motivation for a person to engage in medical tourism. As noted above, people seek treatment

overseas for a range of other reasons. These include economic motivations, a desire to minimise the waiting time for treatment, and the availability (and legality) of certain therapies. Other motivations include a desire for anonymity and an agreeable recuperation environment (Business Line, 2009, MacReady, 2007, Deloitte, 2008, Anonymous, 2009, Connell, 2006). Of these, economic factors, availability, and waiting times appear to be the dominant factors in motivating people to adopt medical tourism.

In summary, the target clientele of medical tourism are primarily the uninsured, underinsured, and uninsurable from developed countries. In addition, potential medical tourists include expatriates, long-stay tourists, the so-called ‘elite’ from developing countries, corporate firms, and insurance companies that wish to refer people to foreign countries under the arrangements of their health-care coverage. The motivations for such people seeking medical treatment overseas are primarily economic factors, availability of particular therapies, and a desire to minimise waiting time.

2.2.4 Marketing of medical tourism

Many developing countries, including Thailand, now see medical tourism as a lucrative market and are attempting to attract medical tourists from all over the world (Connell, 2006, Chinai and Goswami, 2007, Chow, 2009). As a result, medical tourism in such countries as Thailand and India has shown two-digit growth per annum in recent years (Connell, 2006). Medical tourism in India is expected to be worth USD\$1 billion by 2012 and revenue from foreign patients to Thailand rose from USD\$900 million in 2004 to USD\$1.25 billion in 2005 (Connell, 2006, Ramirez de Arellano, 2007, Service Promotion Department, 2007). Given the large amounts of money involved, competition among developing countries for medical tourists is expected to intensify (Connell, 2006, Chow, 2009).

In view of the motivations for medical tourism noted above, the two major leverage points for medical tourism destinations in attracting medical tourists are likely to be: (i) price; and (ii) quality of service (Awadzi and Panda, 2005, MacReady, 2007). Prospective destinations are therefore striving to upgrade their medical services and adopt Western protocols to cater to the needs of foreign patients (Connell, 2006, Strategic and Marketing

Magazine, 2007). Some destinations are also attempting to position themselves as specialists in particular technologies and therapies (Connell, 2006, Chow, 2009). South-East Asia has emerged as the region with the greatest potential for medical tourism; indeed, four of the world's main medical tourism destinations (Thailand, Singapore, Malaysia, and the Philippines) are in South-East Asia (M2Presswire, 2008, Department of Export Promotion (Manila Office), 2008).

Some countries, such as Taiwan, Singapore, Iran, and Korea, are not only positioning themselves as medical tourism destinations but are also being targeted by competing destinations as potential sources of medical tourists (Choo, 2002, Department of Export Promotion (Jakarta Office), 2007, Department of Export Promotion (Manila Office), 2008, Korea Health Industry Development Institute, 2007). In the case of Singapore, which is seeking to leverage its internationally accredited infrastructure and resources (Chow, 2009, M2Presswire, 2008), 571,000 medical tourists visited the country in 2007. Singapore expects this number to increase to one million visitors (generating more than USD\$1 billion dollars) per annum by 2012 (Chow, 2009, Choo, 2002). Singapore offers the latest medical technologies (Chow, 2009), but the country's major disadvantage is the cost of its health-care services, which is the highest among Asian medical tourism destinations (Choo, 2002, M2Presswire, 2008).

Taiwan (Chinese Taipei) promotes itself as a medical tourism destination by using small-scale procedures as its main selling point (Department of Export Promotion (Manila Office), 2008). However, Taiwan is also a potential source of medical tourists to other countries. Despite the imposition of a compulsory health insurance plan for all citizens, Taiwanese people are still required to spend large sums of money for procedures that are not covered by the obligatory health plan. There are thus opportunities for other Asian medical tourism destinations, including Thailand, to attract Taiwanese people to visit their countries for medical services (Department of Export Promotion (Manila Office), 2008). However, the two main obstacles to success in promoting Thailand as a potential medical tourism destination for Taiwanese people are the language barrier and the apparently negative perceptions of Thai medical standards held by Taiwanese people (Department of Export Promotion (Manila Office), 2008).

Korea aims to be a preferred medical tourism destination by leveraging its ranking as 14th in the world in terms of the standards of its medical services (Korea Health Industry Development Institute, 2007). Korea receives 30,000 foreign patients per year. These people travel to Korea for therapies that offer a blend Western and Oriental medicine (Korea Health Industry Development Institute, 2007). However, Korea is also a potential source of medical tourists to other countries. Despite the fact that health insurance is obligatory for all Koreans, many Koreans travel overseas for therapies that are outside the scope of coverage of the national insurance policies. In view of the ASEAN–South Korea free trade agreement, Thailand is well placed to compete for these potential medical tourists (Thai News Services, 2009).

Although Iran positions itself as a medical tourism destination, it suffers from certain negative images about the quality of care—such as reports of complications arising from surgeons also giving anaesthetics while simultaneously attempting to perform cosmetic-surgery procedures (McDowall, 2006). In terms of being a potential source of medical tourists to other countries, it is of interest that one-tenth of young Iranian females are reported to have had, or currently be seeking, cosmetic-surgery procedures (McDowall 2006).

The Asian countries that position themselves only as receptive medical tourism destinations include Thailand, India, Malaysia, Indonesia, and the Philippines (Department of Export Promotion (Jakarta Office), 2007, McDowall, 2006, Choo, 2002, M2Presswire, 2008). Although India suffers from an adverse image with respect to sanitation and the standard of its health-care industry, the government has been seriously promoting the country as a medical tourism destination by leveraging its relative cost advantages (M2Presswire, 2008, Chinai and Goswami, 2007); for example, in 2006, the Indian government introduced a specific type of visa for medical tourists and their companions in order to facilitate their visits. Indian health-care providers blend conventional medical therapies with traditional Ayurvedic therapies (Chinai and Goswami, 2007, Business Line, 2009), which has led to some success—as reflected in the high-paying clientele that India has attracted. The average spending per medical tourists in India is approximately USD\$1902, compared with figures of USD\$905 for Indonesia, USD\$835 for Singapore, and USD\$520 for Malaysia (Business Line, 2009).

Malaysia is a relatively new medical tourism destination (M2Presswire, 2008) that has become the preferred Asian destination for Europeans and Americans (Connell, 2006). To induce confidence among medical tourists, the Malaysian government has initiated its own professional accreditation system (Chow, 2009). In particular, with a view to attracting Muslim medical tourists, Malaysia promotes Islamic practices among its health-care providers (Awadzi and Panda, 2005).

In the case of Indonesia, expatriates, diplomats, and the so-called ‘*élite*’ have long been accustomed to travelling to other countries (mainly Singapore) to receive medical treatment because there is no private health care in the country and the standards of medical practice and public health-care facilities are generally poor (Department of Export Promotion (Jakarta Office), 2007). This obviously provides opportunities for other developing countries to offer medical tourism services to certain Indonesians.

Developing countries outside Asia are also active in pursuing this lucrative market. For example, Latin American governments have been courting medical tourists, especially from the USA, by promoting private investment in health-care businesses. Puerto Rico has also been targeting patients from other American countries (McDowall, 2006). In Africa, Uganda has sought to lure medical tourists by capitalising on its advances in medical technologies (especially in fertility medicine and gynaecology), its cost advantages, and the high level of English proficiency in the country (All Africa, 2009).

Developing countries are not alone in pursuing the medical tourism market. While continuing to generate medical tourism for other countries, developed countries (such as Canada and Australia) are simultaneously courting medical tourists (Weaver, 2008, Cosh, 1997, Canadian Institute for Health Information, 2007). Canadians suffer from a heavy financial burden for medical care because its health plans provide only an incomplete contribution to the total cost of medical treatment. Due to a shortage of health professionals, Canadians must also cope with relatively long waiting times (average 7.7 weeks) and a relatively low doctor/patient ratio (1:1000) (Canadian Institute for Health Information, 2007). Canada thus represents a potential target for generating medical tourists. Nevertheless, the

country also courts medical tourists from the United States by leveraging its own relative cost advantages and the short distance between the two countries (Cosh, 1997).

The Australian medical tourism market has also grown significantly within the past five years, despite the fact that an increasing number of Australians are now travelling to developing countries for medical care as a result of the relative cost advantage (Weaver, 2008). The lower cost of surgical procedures in Asian countries, and the relatively cheap travel from Australia to those countries, make medical tourism appealing to Australians despite certain concerns about the quality of care being offered (Weaver, 2008). In particular, cosmetic-surgery procedures are popular among Australian medical tourists (Weaver, 2008).

In terms of marketing, it should not be assumed that one offering appeals equally to all prospective medical tourists. Indeed, prospective medical tourists from different countries tend to have particular preferences for certain destinations; for example, whereas medical tourists from Europe are inclined towards India and Thailand, Westerners who are resident in Asia tend to prefer Malaysia and Singapore over other Asian destinations (Connell, 2006). As with all marketing, the success of a medical tourism destination thus depends on accurate customer segmentation, careful targeting, and adept positioning (Kotler and Keller, 2006, Decrop, 2000). In the case of the medical tourism market, segmentation should primarily be based on: (i) types of health conditions; and (ii) income (Goodrich, 1994). In addition, the marketing of medical tourism should take account of the opportunities provided for corporate firms and insurance companies to offer enhanced benefits to their employees/clients at lower costs (Marlowe and Sullivan, 2007). However, marketers should recognise that insurance companies and corporate firms harbour several concerns about the services being offered. These concerns include quality of care, saving potential, sponsor liability, travel-related exposure, and tax implications (Marlowe and Sullivan, 2007).

2.2.5 Concerns about medical tourism

Destinations that seek to attract medical tourists face certain challenges. In particular, they need to address the concerns that prospective consumers have with regard to: (i) quality of

care; (ii) costs; (iii) legal liability; and (iv) travel. Each of these is discussed in greater detail below.

Quality of care is an issue of primary concern to medical tourists of all types. Health-care providers in developing countries therefore attempt to ensure that the quality of care they provide is comparable to that in developed countries by obtaining accreditation from recognised authorities—such as the Joint Commission for the Accreditation of Healthcare Organisations (JCAHO) or the International Organisation for Standards (ISO) (Chow, 2009, Strategic and Marketing Magazine, 2007, Marlowe and Sullivan, 2007) . In addition, the marketing messages communicated to the market by most providers tend to focus on the qualifications of surgeons (Awadzi and Panda, 2005, McDowall, 2006); for example, one hospital in Thailand advertises itself as having more than 200 American-trained surgeons (as well as providing interpreting services in more than 26 languages) (Awadzi and Panda, 2005, Service Promotion Department, 2007, Ramirez de Arellano, 2007).

Apart from reassurance regarding the quality of care provided by well-qualified surgeons, consumers and insurance companies are also concerned about the possibility of post-operative complications because doctors in the patients' countries of residence might be reluctant to take professional and legal responsibility for any subsequent difficulties that arise (Marlowe and Sullivan, 2007). To provide reassurance on this point, surgeons in developing countries must assume professional and legal responsibility for all patients on whom they operate—including during recuperation periods after surgery.

MacReady (2007) has responded to allegations of post-operative complications by proposing a five-point checklist for prospective medical tourists to evaluate medical tourism destinations: (i) facilities and infrastructure; (ii) qualifications and certifications of doctors; (iii) success and failure rates; (iv) mortality and morbidity rates; and (v) due diligence (whether patients deal with health-care providers directly). The Medical Tourism Association (MTA), which is based in Florida, USA, has also been formed to establish standards for regulating the quality of care and ethical practices in medical tourism destinations (Pedersen, 2007). Another important organisation in the regulation of health-care standards is the Joint Commission on Accreditation of Healthcare Organization (JCHO), which regulates the practice of health-care providers through an accreditation system that requires renewal of

registration every three years through inspection by the staff of JCHO (Pedersen, 2007). Although it is quite costly for health-care providers to obtain accreditation from JCHO, most are willing to bear the additional cost in view of the large number of patients who are willing to pay more for properly accredited care (Pedersen, 2007).

Medical destinations can also seek to allay the safety concerns of potential medical tourists by establishing networking relationships with health-care providers in the countries of origin. For example, some American medical insurance companies, such as Optmed Health Group and Blue Cross/Blue Shield, now provide special programs for self-insured employers and policy holders to receive medical care at Bumrungrad Hospital in Thailand, which is one of the leading international hospitals in the country (Moody, 2007).

The second concern of many prospective medical tourists is the question of *costs*. Given that the primary reason for going abroad for medical treatment is usually economic, the potential for saving on medical expenses is obviously of significance for medical tourists, insurance companies, and corporate firms (Marlowe and Sullivan, 2007, McDowall, 2006). In general terms, research has shown that medical care in developed countries is approximately 6–8 times more expensive than similar care in developing countries as reported in Table 1.3 (Awadzi and Panda, 2005, Moody, 2007).

Despite the apparent attractiveness of these comparative costs, some prospective medical tourists have concerns about postoperative complications and the cost of potential corrective treatment that might be necessary after returning to their home countries (Marlowe and Sullivan, 2007, MacReady, 2007). When coupled with travel expenses, the potential for cost savings might be reduced to as little as 1–2%, which, in the case of insurance companies and corporate firms, might be insufficient to make it worth their while referring their policy holders and employees to developing countries—especially given the potential for adverse publicity that might arise from medical malpractice or difficulties in travelling (Marlowe and Sullivan, 2007).

The third concern of medical tourists, especially insurance companies or corporate firms that refer their policy holders or employees to medical tourism destinations, is that they might find themselves *legally liable* for any adverse consequences of treatment provided abroad (Marlowe and Sullivan, 2007). According to Marlowe and Sullivan (2007), prudent

health-care plan providers should: (i) not overtly convince people to choose the option of travelling offshore to receive medical treatment; and (ii) require offshore health-care services to provide a formal statement of their responsibilities for medical malpractice and evidence of their holding medical malpractice insurance.

The fourth cause for concern among prospective medical tourists relates to *travel*. For insurance companies or corporate firms wishing to refer their policy holders or employees to receive medical treatment abroad, additional travel insurance might need to be provided for patients to cover accidents or difficulties that might occur during their trips (Marlowe and Sullivan, 2007). In addition, by selectively referring health-plan beneficiaries to health providers abroad, insurance companies and corporate firms might expose themselves to legal issues regarding discrimination. It is possible that the selection of particular groups of people, such as the disabled, might be regarded as discriminatory behaviour, which could lead to adverse publicity or legal action (Marlowe and Sullivan, 2007). Moreover, because medical expenses or travel expenses are not tax-exempt for most patients, insurance companies and corporate firms might also find it difficult to convince their employees and/or policyholders to receive their medical treatment abroad (Marlowe and Sullivan, 2007).

In summary, prospective consumers of medical tourism products can be conveniently divided into two categories: (i) individual medical tourists; and (ii) health-care plan sponsors (insurance companies or corporate firms) that refer their plan beneficiaries to medical service providers abroad. The potential benefits to the first group are clear—as long as the desired treatment is outside the ambit of their health-care plans and/or these potential patients are ineligible to benefit from their existing plans. Indeed, there are really only two concerns of significance for this group—the quality of care and the potential for saving. In contrast, the second group of prospective customers, health-care plan sponsors, are not only concerned with the quality of care and the potential for savings, but also with their legal responsibilities for possible post-operative complications and travel issues. For this category of customers, the potential for savings might be offset by financial losses associated with these legal responsibilities. This has consequences for the price of insurance premiums because these potential costs will ultimately be borne by the insurance provider. Finally, because referrals to medical tourism providers must be overtly conducted on an entirely voluntary and non-

discriminatory basis, it might be difficult to convince some insurance beneficiaries to adopt the offshore option.

2.2.6 Medical tourism in Thailand

As previously noted, tourism and its related industries have long been one of Thailand's major revenue-generating sectors. The country has established itself as a destination for international tourists that provides value for money, entertainment, and beaches; in addition, Thailand has become a popular venue for so-called 'MICE' travel (meeting, incentives, convention, and exhibition) (Future_Brand_Index, 2007, Service Promotion Department, 2007). However, one of the country's competitive advantages—leveraging on its natural attractions—is now declining as new destinations emerge with more pristine environments and local communities. Nevertheless, in 2008, Thailand continued to target rising tourist arrivals—with the aim of attracting 15.7 million international tourists to generate more than AUD\$20,000 million (Service Promotion Department, 2007, Tourism_Authority_of_Thailand, 2008). The country thus aimed to continue to position itself as a world-class destination by offering existing and new attractions to a higher paying clientele (Service Promotion Department, 2007).

Alternative forms of tourism—including business and health tourism—were designated as potential growth areas that would enable Thailand to withstand the increasingly intense competition from other destinations selling more conventional tourism products. In this regard, both the volume and revenue generated by foreign medical tourism patients in Thailand had previously shown significant increases; for example two-digit annual growth in revenue was experienced over several years, and in 2005 Thailand generated revenue of AUD\$1100 from 1.28 million foreign patients (Strategic and Marketing Magazine, 2007, Service Promotion Department, 2007).

In recognition of the potential for further growth in medical tourism, Thailand decided to promote this form of tourism in two categories: (i) medical treatment (conventional medical operations and treatment); and (ii) health-and-beauty therapy (traditional therapies for general well-being, such as Thai massages, spa, and yoga) (Strategic and Marketing Magazine, 2007). Thailand has since promoted both categories of health-tourism products aggressively to a range of potential medical tourists—including general tourists, health

tourists, diplomats in Thailand and neighbouring countries, and expatriates in Thailand and neighbouring countries. The country has done this by leveraging its advanced therapeutic technologies, the quality of its medical personnel, its price advantages, and its reduced waiting times (Ramirez de Arellano, 2007).

As a result of these endeavours, the number of foreign patients increased by 11.35% per annum from 2001 to 2004; these visitors generated revenue of approximately USD\$5 million annually (Vadanabha, 2007). In 2006, Thailand attracted 1.40 million foreign patients who generated more than AUD\$ 1200 million while enjoying approximately AUD\$ 1700 million from 13.6 million tourists (Strategic and Marketing Magazine, 2007).

In seeking to raise awareness of the country as a medical tourism destination, the Tourism Authority of Thailand and the Ministry of Commerce have promoted the potential of the country by participating in so-called ‘travel marts’ (with allied hospitals and health-service providers) and by organising familiarisation trips and ‘road shows’. They have also coordinated with government authorities and insurance companies in major tourism markets to increase the likelihood of Thailand being chosen as the destination of choice for offshore medical treatment (Service Promotion Department, 2007).

The Thai health-care industry has expanded rapidly in recent years, thus facilitating the objective of the Thai government in promoting the country as the medical hub of South-East Asia (Vadanabha, 2007). The rapid expansion has led to a proliferation of private hospitals in Thailand, but a recent increase in mergers and acquisitions is likely to result in ten main players dominating the industry (Strategic and Marketing Magazine, 2007). It is expected that the country could attract two million foreign patients within five years, who will generate AUD\$3000 million (Strategic and Marketing Magazine, 2007, Service Promotion Department, 2007).

The Thai medical industry is recognised throughout the world for the expertise of its doctors, its comparative cost advantages, and its congenial Thai hospitality (Service Promotion Department, 2007, Ramirez de Arellano, 2007, Awadzi and Panda, 2005). It has been claimed that the operative success rate of Thai doctors is comparable to that in

developed countries, and that Thai medical services are, along with Singapore, among the most advanced in South-East Asia (Strategic and Marketing Magazine, 2007).

The major markets for Thai medical tourism are the USA, Japan, the UK, and Middle Eastern countries (Strategic and Marketing Magazine, 2007). Medical tourists travel to Thailand for treatment of general medical illnesses, cosmetic surgery, and dentistry (Service Promotion Department, 2007). Such tourists represent a high-spending tourist segment, with each person spending approximately AUD\$1000 per visit (including non operative treatments) (Strategic and Marketing Magazine, 2007).

Thai private hospitals offer ‘one-stop’ services for medical tourists—including immigration services, airport representative offices, foreign market representative offices, and interpreting services (Strategic and Marketing Magazine, 2007). To gain the confidence of medical tourists from developed countries, Thai private hospitals have also affiliated with health-care institutions and medical schools of international repute.

One of the leading Thai private hospitals that competes for foreign patients is the Bangkok General Hospital, which has divided its operations among several hospitals that specialise in various diseases, including cardiology and cancer, by investing considerable resources in sophisticated equipment (Strategic and Marketing Magazine, 2007). Medical schools utilise these hospitals for clinical research, and the name of hospital has thus become associated with significant research work in major academic seminars and publications (Strategic and Marketing Magazine, 2007). Another leading Thai hospital is the Piyavet Hospital, which has established special units that specialise in cardiology, neurology, and gynaecology (Strategic and Marketing Magazine, 2007).

Bumrungrad is, perhaps, the most highly reputed Thai hospital in the international medical tourism market. It has upgraded its operations to international standards by achieving international accreditation (through JCI), and its doctors and surgeons are reputed to be of the highest international calibre (Ramirez de Arellano, 2007); indeed, the hospital claims that it has more than 200 internationally certified doctors (Ramirez de Arellano, 2007, Awadzi and Panda, 2005).

In summary, Thailand has sought to promote medical tourism in the country by capitalising on the high standard of its medical services. The country has embarked on a policy of direct market penetration through the establishment of representative offices in major generating markets. By coordinating with government authorities and insurance companies in the source markets, Thailand has sought to increase the likelihood of the country being chosen as the destination of choice for medical tourists.

2.3 Destination choice

2.3.1 Involvement and destination choice

Choosing a destination is a multi-step decision-making process in which different individuals invest varying levels of effort, depending on their level of ‘involvement’ (Crompton, 1992, Hawkin et al., 2001, Hudson, 1999, Decrop, 2000). The crucial determining factor of a given individual’s mode of decision-making is, therefore, the level of product involvement felt by that individual (Zaichkowsky, 1985, Hawkin et al., 2001, Sheth et al., 1999).

The concept of ‘involvement’ refers to the *personal relevance* of a particular good or service (or a particular purchase situation) to a given individual; this personal relevance is, in turn, determined by personal motivation and interest at a particular point in time (Zaichkowsky, 1985). Such ‘involvement’ is an antecedent for other purchase-related variables—including information search, learning, evaluation of alternatives, perception of brand image, and, ultimately, a decision on brand preference (Swarbrooke and Horner, 2007, Hawkin et al., 2001, Crotts, 2000, Hudson, 1999, Decrop, 2000, Goosens, 2000).

Customers who have *low levels of involvement* engage only in an ‘internal search’ to support their decision-making (Hawkin et al., 2001). This process has been called ‘nominal decision-making’ (Hawkin et al., 2001). Such nominal decision-making is typically applied to three types of purchase: (i) low-involvement purchases; (ii) repeat purchases; and (iii) brand-loyal purchases (Hawkin et al., 2001, Friedrichs and Opp, 2002). Although the choice of medical tourism destination is typically a high-involvement decision, medical tourism destinations and health-care providers can nonetheless benefit from brand-loyal purchasing if

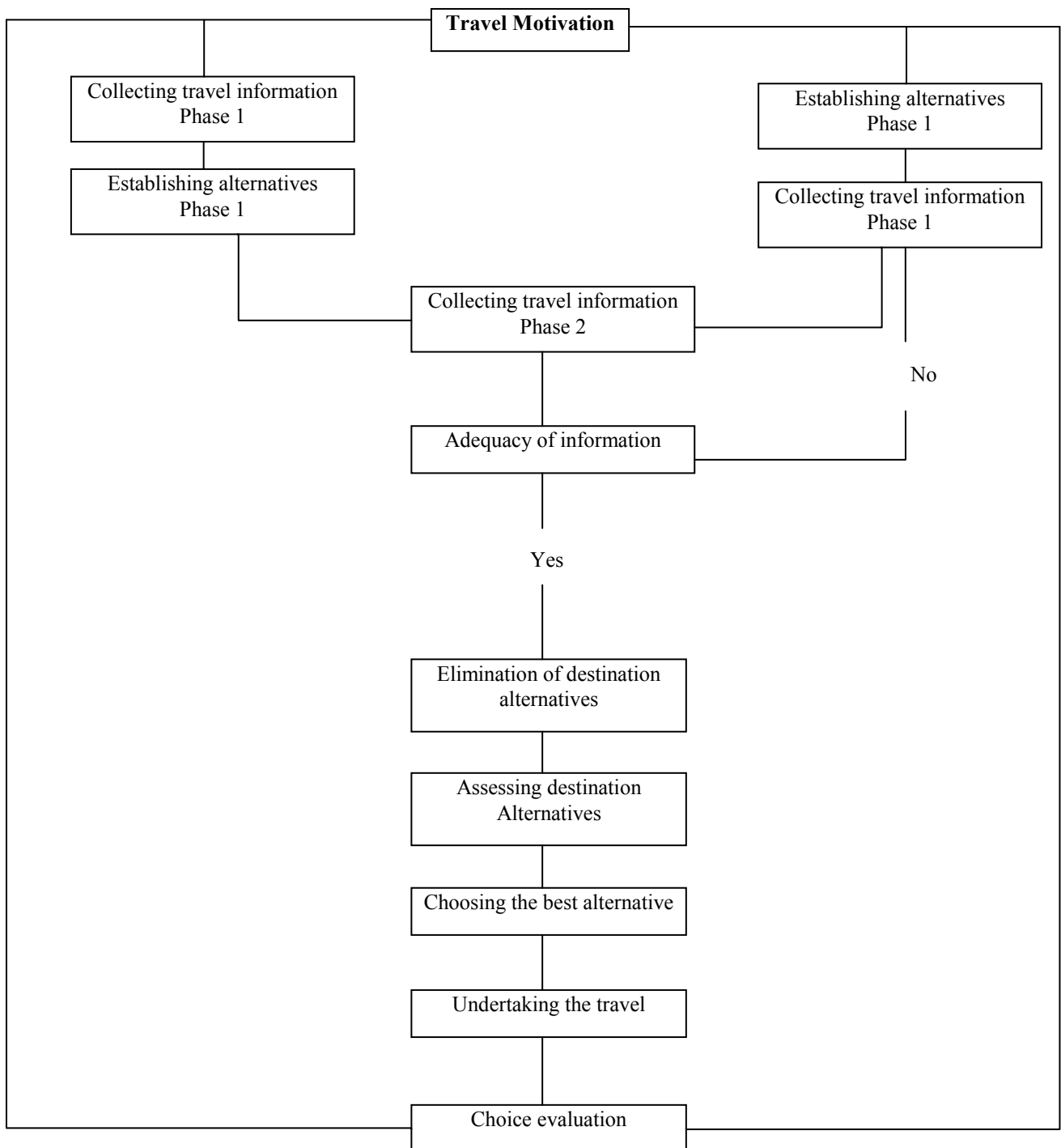
they manage their customer relationships and service encounters effectively (Hawkin et al., 2001, Decrop, 2000).

Customers who have *medium levels of involvement* typically engage in limited external search activities, in addition to the internal search noted above (Hawkin et al., 2001, Sheth et al., 1999). In making their choices, relatively few criteria are taken into consideration and there is typically a low level of post-purchase dissonance. Such ‘*limited decision-making*’ might be employed in making decisions regarding certain emotional or environmental needs—such as a response to boredom or a desire for novelty (Hawkin et al., 2001).

Customers who have *high levels of involvement* engage in so-called ‘*extended decision-making*’ regarding the products or services that they purchase (Hawkin et al., 2001). These high-involvement customers engage in extensive internal and external searches and take many criteria into account in making their decisions (Hanlan et al., 2006, Moutinho, 1987). A high degree of information search typically involves a complex process in which multiple decision rules are applied (at different levels of importance) to evaluate the various alternatives under consideration (Hawkin et al., 2001, Decrop, 2000). After the purchase decision has been made, such customers often still have doubts about the wisdom of their decision, and continue to receive information about the alternatives that they did not choose. Post-purchase dissonance is thus a relatively common occurrence and an important factor to be taken into consideration regarding possible repeat purchases and dissemination of word-of-mouth opinions (Turley and LeBlanc, 1995). Zaichkowsky (1985) noted that high-involvement customers engage in more search activities and extended problem-solving behaviour, whereby they consciously evaluate alternatives, perceive more pronounced brand differences, and have stronger brand preferences within a given product category. In terms of making a destination choice for medical tourism, it can be assumed that the level of involvement will be high and that people will usually engage in extended decision-making to reduce the risk of making a wrong decision about an important personal issue (Goosens, 2000, Prentice, 2006).

Against this background, Figure 2.2 illustrates the decision-making process of a prospective traveller in choosing a destination.

Figure 2.2: Conceptual model of tourism destination choice



Source: (Mansfeld, 1992)

It is apparent from Figure 2.2 that all tourists do not necessarily follow the same sequence of decision-making when choosing a destination. The sequence depends on each individual's particular awareness and knowledge of alternative destinations, which will vary in accordance with that person's motivation to travel (Mansfeld, 1992). In some instances, the knowledge previously stored in long-term memory does not enable a prospective tourist to establish a set of possible destinations for consideration before engaging in information search activities; in other instances, a prospective tourist already has a set of alternative destinations that he or she perceives as possible solutions to their needs (before engaging in information search activities).

It is also apparent from Figure 2.2 that an understanding of the full decision-making process undertaken by a prospective medical tourist requires consideration of: (i) motivation; (ii) information search; and (iii) evaluation and elimination of alternatives. Each of these is discussed in more detail below.

2.3.2 Motivation and destination choice

Motivation, which has a determining role in the whole decision-making process (Hanlan et al., 2006, Moutinho, 1987, Seddighi and Theocharous, 2002), can be defined as the needs and/or desires that induce certain actions and behaviour (Moutinho, 1987, Mansfeld, 1992, Fodness, 1994, Awaritefe, 2004). As such, motivation is the major antecedent factor in making a purchase (Jang and Cai, 2002) and the basis for information search behaviour, evaluation of alternatives, and post-purchase evaluation (Hanlan et al., 2006, Hawkin et al., 2001, Seddighi and Theocharous, 2002).

Motivation can be understood as consisting of push factors and pull factors. Push factors are the intrinsic drivers or goals of making a choice among alternatives, whereas pull factors are the attributes of the various alternatives that are perceived as satisfying the push factors (Jang and Cai, 2002, Dann, 1981, Botha et al., 1999, Mansfeld, 1992, Goosens, 2000). In the case of medical tourism, a thorough understanding of these push factors and pull factors enables destination managers to know: (i) what stimulates the demand for

medical tourism; and (ii) what attracts people to certain destinations (Baloglu and Uysal, 1996, Klenosky, 2002).

McCabe (2000) contended that people travel because of two major motivations: (i) a desire to *escape*; and (ii) a desire to *sæk*. Crompton (1979) identified seven leisure motivations (escape from a mundane environment; exploration for oneself; relaxation; prestige; regression; enhancement of kinship; and social interaction) as *push factors* that internally motivate people to travel. Crompton (1979) also identified two other leisure motivations (novelty and education) as *pull factors*; that is, destination attributes that draw prospective tourists towards certain destinations according to their intrinsic needs.

Although *push factors* can be differentiated from *pull factors*, it has been suggested that they should always be considered together if the whole choice process is to be comprehensively understood (Klenosky, 2002, Baloglu and Uysal, 1996). The relationship between the two types of factors can be explained in terms of so-called *means-and-ends* theory—whereby prospective tourists use destination attributes as a means of achieving their ends (in accordance with intrinsic motivation) or reducing tensions caused by any discrepancy that exists between their actual state and their desired state (Klenosky, 2002, Hawkin et al., 2001, Moutinho, 1987). In summary, it can be argued that a destination is chosen by a prospective tourist only when the individual perceives that its attributes can best satisfy his or her intrinsic needs as compared to other alternative destinations under consideration.

In leisure tourism, a choice of destination involves a twofold decision: (i) a decision as to whether to go on a trip; and (ii) a decision on where to go (Um and Crompton, 1990). The first is largely determined by the *push factors* of motivation whereas the second is largely determined by *pull factors*. Similarly, in the context of medical tourism, prospective tourists have first to decide whether they are willing to travel to other countries to receive the desired medical procedures; only after making this decision do prospective travellers begin the process of selecting a particular medical tourism destination on the basis of whether the attributes of the destination are likely to satisfy their needs (Um and Crompton, 1990).

Like other choices of a tourism destination, a decision on choosing a medical destination is made to satisfy a variety of motivations—although there is usually one

dominant motivation in the case of medical tourism (Hawkin et al., 2001, Swarbrooke and Horner, 2007, Mansfeld, 1992, Awaritefe, 2004). In leisure tourism, these multiple motivations include a desire for various hedonic, emotional, and social benefits (McCabe, 2000, Crompton and McKay, 1997, Mansfeld, 1992, Van Middelkoop et al., 2003, Swarbrooke and Horner, 2007). Although these multiple motivations do exist to some degree in the case of medical tourism, they are nevertheless of secondary importance compared with the major motivation to obtain quality medical treatment in other countries in a cost-efficient manner. Prospective medical tourists therefore exert considerable effort in searching for information about the quality, availability, and cost of the medical services available in different destinations (Um and Crompton, 1990, Mansfeld, 1992, Hyde, 2008). Evaluation of these attributes is clearly more important to medical tourists than other attributes that are essentially irrelevant to their medical needs.

In summary, because the ‘push factors’ of motivation to travel among medical tourists are fundamentally different from those of leisure tourists, the two groups of travellers can be assumed to engage in quite different decision-making processes in choosing a destination. Destinations that wish to pursue prospective medical tourists therefore need to promote destination attributes that are pertinent to the medical needs of their prospective clients. Designing ‘pull factors’ that match the ‘push factors’ of medical tourists is, therefore, the key success factor in ensuring that a destination becomes a preferred medical tourism destination.

2.3.3 Information search and destination choice

The term ‘information search’ refers to a person’s retrieval of the knowledge (either stored in memory or acquired) that is required to make a correct decision (Gursoy, 2003, Gursoy and McCleary, 2004). Once prospective tourists are motivated by ‘push factors’ to make a decision regarding a travel goal, they begin the information-search phase of the decision-making process. They first engage in an internal search of long-term memory, followed by an external search of other sources of information if they feel that the information retrieved from the internal search is insufficient (Um and Crompton, 1990, Hensher et al., 1999, Moutinho, 1987, Gursoy and McCleary, 2004). Because decisions regarding a choice of destination typically involve high involvement, prospective tourists usually engage in an extensive

external search (Mansfeld, 1992, Crotts, 2000, Hawkin et al., 2001, Zaichkowsky, 1985). As a result of such an external search, any previously held image of a destination tends to change as a consequence of exposure to new information and the high level of involvement (Hawkin et al., 2001, Um and Crompton, 1990).

An external search can involve informal and/or formal sources of information. *Informal* information sources typically involve social contacts with friends and family members (Mansfeld, 1992, Belch and Belch, 2001). Although such informal information usually lacks a high level of credibility (due to a lack of expertise in most cases), it is often ranked highly in terms of trustworthiness. Prospective tourists therefore tend to depend on this type of information throughout the decision-making process (Swarebrooke and Horner, 1999, Wirtz and Mattila, 2003, Dholakia, 2000, Molina and Esteban, 2006, Mansfeld, 1992). *Formal* sources of information include a broad range of marketing resources generated by specific destinations and tourism intermediaries (such as travel agencies and tour operators) (Kozak, 2007, Mansfeld, 1992). According to Mansfeld (1992), this type of formal information is ranked highly in terms of both credibility and quality (Mansfeld, 1992).

In making an internal search, prior knowledge about a destination serves as a convenient starting point for prospective travellers (Purdue, 2000). In the context of medical tourism, it can thus be assumed that positive direct experience of a given destination will influence the confidence that a consumer places in the destination, even if the information accumulated from the previous experience might not be directly relevant to medical tourism. In this regard, the concept of ‘product knowledge’ is important. Product knowledge has been posited as a multi-dimensional construct that is comprised of: (i) product familiarity (the degree of experience a prospective tourist has with a destination or a perception of how much they know about the attributes of the destination); and (ii) product expertise (objective knowledge about the ability of a product to perform specific tasks) (Gursoy, 2003, Wirtz and Mattila, 2003, Punj and Srinivasan, 1989).

The relationship of *product familiarity* and external search behaviour is said to be in the form of ‘U-shape’; that is, prospective visitors with either very low or very high familiarity tend to engage more extensively in external search behaviour (Gursoy, 2003). However, these two groups of potential travellers require different types of information (Gursoy, 2003, Wirtz

and Mattila, 2003). Potential visitors with low familiarity require easy-to-understand information that enables comparisons to be made with other alternatives (Gursoy, 2003); in contrast, potential visitors with high familiarity require more detailed information from destination-specific sources that focuses on certain important attributes (according to the motivation to travel) (Gursoy, 2003, Hyde, 2008). In the case of medical tourism, it can therefore be assumed that prospective tourists with different levels of product familiarity will rely on different sources and types of information.

With regard to *product expertise*, a prospective tourist with a high level of such expertise tends to rely on an internal search because he or she is already confident about having the level of knowledge required to make a correct decision (Wirtz and Mattila, 2003).

According to (Bieger and Laesser, 2004), contemporary leisure tourists seeking external information now tend to rely more heavily on information from brochures or Internet websites, rather than the traditional reliance on information from travel agents. However, in the case of potential visits to remote destinations, prospective leisure tourists still tend to rely on travel agents because the tourists have limited product knowledge and perceive that a greater risk is associated with a decision to visit such a location (Bieger and Laesser, 2004, Mansfeld, 1992). Nevertheless, whatever their primary source of information, it has been shown that the majority of prospective tourists do not rely on only one source of information; rather, they use information from various sources in combination (Crotts, 2000, Mansfeld, 1992). The significance of these findings for medical tourism is that prospective medical tourists are typically faced with a scenario similar to a potential visit to a remote location—that is, there is a relatively high perceived risk and limited knowledge about the product (the medical procedures involved and the standards of care in foreign countries). It is therefore reasonable to hypothesise that potential medical tourists will be less likely to rely on information provided by brochures and other marketing materials, and more likely to rely on local experts (doctors and insurance companies). In marketing a destination as a preferred medical tourism destination, it would therefore be reasonable to assume that networking and relationship management will tend to be of great importance.

Information facilitates decision-making because, among other things, it serves to reduce perceptions of risk (Mansfeld, 1992, Hawkin et al., 2001, Crotts, 2000). The higher the risk

perceived by decision-makers, the more likely it is that they will engage in extensive information-search activities (Bieger and Laesser, 2004, Mansfeld, 1992, Gursoy, 2003, Sonmez and Graefe, 1998). Given the high involvement and perceptions of risk associated with medical tourism as compared to leisure tourism, it is therefore reasonable to expect that medical tourists will engage in extensive information-search activities and exert a high level of mental effort in processing information about the procedures involved and the attributes of various medical tourism destinations (Moutinho, 1987, Gursoy and McCleary, 2004, Hanlan et al., 2006). Medical tourism destination marketers therefore need to ensure that adequate information about the costs and standards of care of the medical services being offered is available to prospective visitors. To facilitate their potential clients' search behaviour, this information should be presented in a manner that is accessible and easy to understand.

Destination marketers should also appreciate that the time that elapses between a decision on a destination and the actual travel allows for the possibility of so-called 'post-purchase dissonance' (that is, doubt about the wisdom of the purchase decision) (Crompton, 1992, Hawkin et al., 2001). After a destination has been chosen, prospective tourists continue to be exposed to information about the chosen destination (and those they did not choose), which might make them doubt the wisdom of their choice (Crompton, 1992, Mansfeld, 1992, Purdue and Meng, 2006). Indeed, after the decision has been made, some prospective medical tourists might actively continue to search for even more information about both the procedures that are envisaged and other aspects of the destination to complement the information that they had previously acquired before the decision was made.

Another important concept that is relevant to information search and the evaluation of alternatives is the notion of a so-called 'choice set' (Crompton, 1992, Molina and Esteban, 2006, Crompton and Ankomah, 1993). The formation of a choice set simplifies the decision-making process—especially when the decision is new or when there has been a change in the circumstances of a previous decision (Crompton, 1992, Schwenk, 1984, Woodside and Sherrell, 1977). A choice set thus functions as decision-simplification heuristic (Woodside and Sherrell, 1977, Purdue and Meng, 2006, Belch and Belch, 2001).

A choice set (which is also referred to as a 'consideration set') is shaped by a combination of internal factors (motivation, lifestyle, prior knowledge) and external factors

(marketing efforts through marketing mixes) (Crompton, 1992, Biehal and Chaakravarti, 1986, Um and Crompton, 1990, Sirakaya and Woodside, 2005). Because these internal and external factors can vary, different choice sets are formed for different decisions aimed at solving different problems (Mansfeld, 1992, Turley and LeBlanc, 1995). Indeed, a given individual can form different choice sets to solve the same problem as he or she comes to possess different previous experience and different knowledge about possible destinations and their attributes (Purdue and Meng, 2006, Botha et al., 1999).

The initial choice set is formed soon after an individual is motivated to make a destination choice. All of the known alternatives that might offer potential solutions to the problem at hand form the initial choice set (Mansfeld, 1992, Botha et al., 1999, Huybers, 2005). This initial choice set for consideration is formed as a result of an internal search that excludes alternatives that are perceived to be unable to satisfy the person's needs or are perceived to be outside any economic or time constraints that might apply (Crompton and Ankomah, 1993, Molina and Esteban, 2006, Crompton, 1992). Being included in the initial choice set for consideration obviously plays a crucial role in determining a destination's ultimate likelihood of success. Destinations that are not included in the initial consideration set have little chance of subsequently becoming the ultimate choice (Ankomah et al., 1996, Crompton and Ankomah, 1993, Woodside and Sherrell, 1977). Initial awareness of a destination is thus a crucial factor in achieving success in the decision-making process (Biehal and Chaakravarti, 1986, Woodside and Lysonski, 1989, Millman and Pizam, 1995). Indeed, a positive relationship between the level of awareness of a destination and the intention to visit has been established in empirical studies (Woodside and Lysonski, 1989).

Subsequent choice sets, which are also known as 'evoked sets' or 'late consideration sets', are formed as more information is added as a result of external searching (Prentice, 2006, Moutinho, 1987, Ankomah et al., 1996, Punj and Srinivasan, 1989). Such information helps prospective tourists to filter out alternative destinations based on the three criteria of 'push factors' (motivation), 'pull factors' (destination attributes), and situational constraints (Um and Crompton, 1990, Botha et al., 1999, Lawson and Thyne, 2001). Inclusion in a late consideration set obviously increases the chance of a destination being ultimately selected as the destination of choice (Woodside and Sherrell, 1977). According to Purdue and Meng (2006), for a destination to be included in the evoked (or late consideration) set, prospective

tourists must perceive it as meeting attribute requirements and must form positive attitudes towards it. In contrast, rejected alternatives usually suffer because the consumer has adverse perceptions regarding price, availability, and risks (Purdue and Meng, 2006, Hawkin et al., 2001, Fischhoff et al., 2004).

The concept of a ‘consideration set’ has several pertinent implications for medical tourism. First, it is very important for destination marketers to create awareness of their destination as a viable alternative as the initial consideration set is being formed by internal information search (Crompton and Ankomah, 1993, Turley and LeBlanc, 1995); such initial awareness is closely aligned with the notion of ‘destination image’ (which is discussed in detail later in this literature review). Secondly, destination marketers must appreciate that all consideration sets are dynamic in nature. A destination might belong to one choice set but subsequently move to other sets as further information is added to the decision-making process (Turley and LeBlanc, 1995). In such a dynamic decision-making environment, marketing communication strategies and activities obviously assume great importance.

In summary, information search is an indispensable aspect of rational decision-making (Prentice, 2006). Rational decision-makers search for information about possible alternatives (within an initial choice set) that might satisfy the needs that arise from their respective motivations (Prentice, 2006, Crompton, 1992). Information from a variety of sources is then used to exclude alternatives that are perceived to have inferior attributes and those that lie outside any economic or time constraints that might apply. Decision-makers thus form an evoked (or late) consideration set. The destination that is ultimately chosen is usually the one that provides the highest level of utility in meeting the needs that arise from individual motivation at any given point in time.

2.3.4 Evaluation of alternative destinations

In evaluating alternatives to form a late consideration set, or to make a final destination selection, prospective tourists assign *utility* to various attributes of a destination on the basis of needs, experience, and constraints (Crouch and Louviere, 2004). In the case of medical tourism, the success rate of medical procedures and hygiene factors are likely to be regarded

as having more utility than traditional touristic attractions when making a decision on a choice of destination. Assuming that decision-makers are rational agents, alternatives with the *highest weighted average utility scores* are likely to be chosen (Purdue and Meng, 2006, Erasmus et al., 2001).

From an economic perspective, Papatheodorou (2001) contended that the demand for a destination is a function of several factors—including expenditure impediments, price, consumer preference, quality of services, information (including marketing communication), and the emergence of new destinations. Of these factors, price and expenditure impediment can be objectively measured, whereas the others are rather more intangible in nature (Walker and Ben-Akiwa, 2002). It is thus apparent that any exploration of the notion of comparative utility necessarily involves some concepts that can be directly measured and others that can only be measured indirectly.

The process of choosing a destination can be analysed in terms of so-called ‘*information integration theory*’ (ITT), which postulates that decision-makers proceed through the process of decision-making by making a series of value judgments (Sonmez and Graefe, 1998). These value judgments include perceptions of the physical reality of a destination’s attributes, together with the formation of an overall destination ‘*image*’ (Sonmez and Graefe, 1998). This theoretical framework assumes that a holistic judgment is made about a destination and its image, and that this holistic judgment has a significant influence on the destination choice behaviour of prospective tourists. The concepts pertaining to ITT are thus very relevant to the way in which a *destination image* is formed (which is discussed in greater detail later in this literature review).

As noted above, the choice of a medical tourism destination is associated with a higher degree of perceived risk to personal health and well-being, and hence a higher level of involvement, than that associated with other types of destination choice. As such, decision-makers make more strenuous efforts to make the correct decision, or at least to minimise the risk of making a poor decision (Beatty and Smith, 1987, Moutinho, 1987). The risks to which marketers should pay particular attention, and strive to minimise, are not the objective and measurable risks; rather, the subjective or perceived risks, regardless of whether they

correspond to objective reality, represent the real issues of concern to marketers (Sonmez and Graefe, 1998).

In assessing such risks, a useful approach is offered by so-called ‘protective motivation theory’ (PMT) (Sonmez and Graefe, 1998), which refers to the cognitive processes of a decision-maker in making a risky decision. According to PMT, decision-makers not only apply their mental efforts to seeking information, but also evaluate each alternative in terms of risk-avoidance behaviour (Sonmez and Graefe, 1998, Bieger and Laesser, 2004, Fodness and Murray, 1997, Bell, 1993). Therefore, the extent to which individuals act as rational decision-makers largely depends on the intensity of a threat, the probability of the threat occurring, and the individual’s coping responses (Sonmez and Graefe, 1998).

Risk can be defined as the expectation of loss and/or cognitive conflicts between expectation and possible outcomes (Mitchell, 1999, Bieger and Laesser, 2004). Such risk can be categorised into two types: (i) ‘inherent risk’ (which refers to the intensity of threat that is inherently associated with a given category of service or product); and (ii) ‘handled risk’ (which refers to the probability of threat associated with a particular purchase choice or buying situation) (Mitchell, 1999, Bettman, 1973). In the case of choosing a medical tourism destination, prospective consumers usually perceive that both types of risks are high; that is, they typically perceive that the risk associated with the decision is high in both intensity and probability of occurrence. Moreover, they usually believe that they possess little or no capacity to control or cope with the risk consequences of their decision. Prospective medical tourists therefore tend to exert a high degree of mental effort and personal resources to making the best-possible decision.

Faced with these circumstances, prospective medical tourists typically set ‘decision rules’ (or guidelines) for accepting or rejecting alternatives according to their motivations (Purdue and Meng, 2006, Hanlan et al., 2006). Such decision rules can be broadly categorised into two types: (i) ‘compensatory rules’ (which allow for tradeoffs between different destination attributes); and (ii) ‘non-compensatory rules’ (which do *not* allow for such tradeoffs) (Mansfeld, 1992).

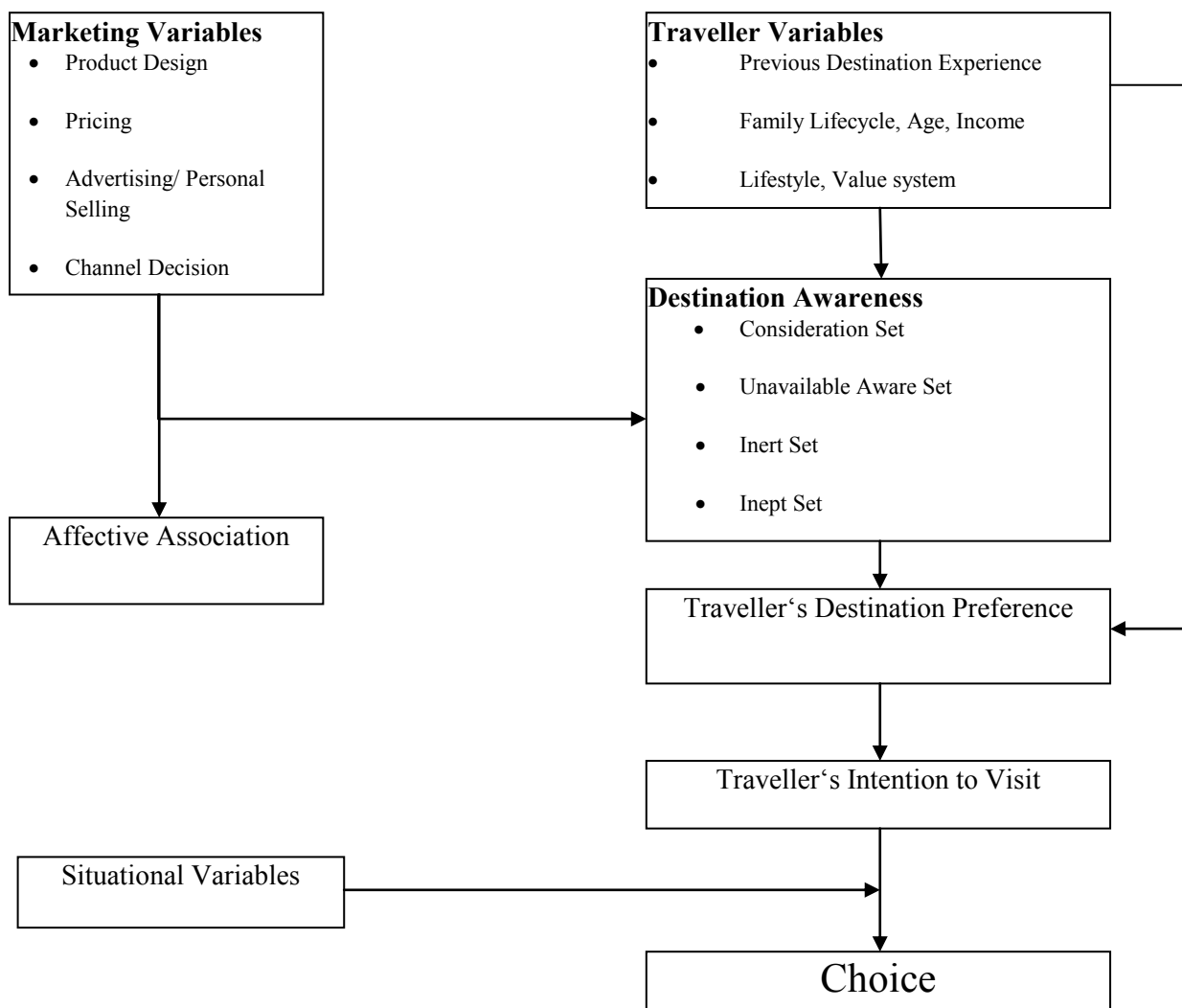
Choices of a leisure destination are usually decided by compensatory rules; that is, the choice is the result of balancing all desirable attributes according to the motivation to travel (Moutinho, 1987). In these cases, the chosen destination is the one that yields the highest weighted average utility level compared with other alternatives in the consideration set (Purdue and Meng, 2006, Mansfeld, 1992). In contrast, non-compensatory rules play a more prominent role in choosing a medical tourism destination; in other words, this decision involves greater weight being given to non-compensatory attributes (about which no trade-off is allowed). Nevertheless, both types of decision rules *are* utilised in performing this choice (Crouch and Louviere, 2004, Mansfeld, 1992). Once alternative destinations have been assessed according to the criteria imposed by the non-compensatory rules, compensatory rules are then applied in the consideration process (Mansfeld, 1992). For example, quality of care, hygiene level, and legal liabilities are typically evaluated first in accordance with non-compensatory rules. If the alternative destinations in the initial consideration set satisfy these non-compensatory rules, the decision-maker then applies compensatory rules (regarding travel or leisure opportunities in those destinations) to the evaluation process.

In addition to the external variables (such as risk assessment) that influence the choice of a destination, internal and situational variables also play a part (Sirakaya and Woodside, 2005, Hanlan et al., 2006, Seddighi and Theocharous, 2002, Lee et al., 2002). These factors include time, demographic variables (such as income and education), actual experience with the destination, and cultural distance (Moshin and Ryan, 2004, Ng et al., 2007, Seddighi and Theocharous, 2002). For example, the effects of demographic factors on destination choice have been studied by Moshin and Ryan (2004), who contended that age, gender, and income all influence the choice of a tourism destination (although it should be noted that the authors were unable to demonstrate statistically significant relationships). Seddighi and Theocharous (2002), who examined several internal factors in their study, reported that age appeared to be the most influential factor in the evaluation of destination attributes and destination choice. With regard to ‘cultural distance’, which refers to the degree of cultural dissimilarity between countries, Ng et al. (2007) found that a negative correlation does exist between cultural distance and an intention to visit. In explaining this negative correlation, it has been argued that a small cultural distance between two countries reduces perceived risk in terms of cultural values and idiosyncrasies (Ng et al., 2007, Fletcher and Brown, 2002). However, studies have shown that this alleged effect of cultural distance does not apply equally to all

groups of travellers; in particular, it would seem that tourists from so-called ‘individualist cultures’ tend to choose to travel to culturally similar destinations, whereas tourists from so-called ‘collectivist cultures’ are more likely to visit culturally distant destinations (Ng et al., 2007). Marketers of medical tourism destinations should therefore be prepared to take a variety of approaches when marketing destinations to prospective tourists from different cultures.

It is apparent from the above discussion that destination marketers (of both leisure destinations and medical tourism destinations) should seek to create an offering that matches both the external factors and internal factors that determine destination choice. In doing so they should take into account such factors as income, age, cultural distance, and the time constraints of target tourists. Figure 2.3 illustrates the whole process of destination choice in the case of leisure tourism, incorporating the concept of awareness set.

Figure 2.3: General model of traveller leisure destination awareness and choice



Source: (cited from, Woodside and Lysonski, 1989, pp.9)

In summary, the choice of a destination begins with a motivation to travel. Prospective tourists then collect information about alternative destinations to assist in making a rational decision about the choice of destination. In the context of medical tourism, the most influential information sought by prospective tourists relates to cost-effective medical care of comparable quality to that which they would receive at home. As the process of information gathering proceeds, the knowledge obtained from various sources enables decision-makers to reduce the risks associated with the ultimate choice. In this process, decision-makers apply both compensatory decision rules and non-compensatory decision rules. In particular, non-compensatory rules are applicable to judgments about alternative medical tourism

destinations because attributes related to personal medical care and procedures are too important to allow for trade-offs; in the case of medical tourism, compensatory rules about leisure-related touristic opportunities are a secondary consideration.

In the ultimate, the choice or rejection of alternative destinations is the result of an evaluative perception that takes account of previously stored memory and information from various sources. In this regard, the concept of ‘destination image’ is a key determinant of the final destination choice.

2.4 Destination image

2.4.1 Definition of destination image

Although the term ‘destination image’ has been defined in various ways and there is no consensus on the details of the concept (Gartner, 1993), most scholars are in general accordance with Hunt’s (1975) description of ‘image’ as being constituted by the perceptions of prospective tourists about the elements—such as climate, people, and culture—that influence the attractiveness of a destination. In a similar vein, Mackay and Fesenmaier (1997) described ‘image’ as a compilation of impressions, and Bojanic (1991) defined ‘destination image’ as the impressions that people hold about a country in which they do not reside. (Echtner and Ritchie, 1993)) described a ‘destination image’ as an impression or perception of a place based on a mental representation of the attributes and potential benefits of the destination. Other authors have emphasised the *selectivity* of the concept. For example, Tasci and Gartner (2007) described ‘image’ as a mental representation of a place on the basis of selected information cues, and Reynold (1965) stated that the ‘image’ of a product or service is formed from inferences as a result of relatively few message elements from a vast amount of information in the message milieu.

All of these definitions and descriptions refer to *perceptions* and *attitudes* about the attributes of a destination. According to Hawkin et al. (2001), perception is formed during the first three steps of the information process: (i) exposure; (ii) attention; and (iii) interpretation.

According to this view, potential consumers who are exposed to many pieces of information in a so-called ‘high-clutter’ environment cannot attend to all of the information that impinges upon them; in these circumstances, they tend to select and retain only the relatively small proportion of information that is directly related to the issues that are of interest to them at a given time, while disregarding other irrelevant information through a process of cognitive and affective interpretation (Hawkin et al., 2001, Belch and Belch, 2001, Leisen, 2001, Reynold, 1965, Ajzen, 2001).

After forming a perception, people then develop a favourable or unfavourable attitude towards the object of their perceptions as a result of various cognitive and affective factors—depending on the level of involvement and the learning situation (Hawkin et al., 2001, Ajzen, 2001). The cognitive components of attitude represent an intellectual evaluation of destination attributes, whereas the affective components are essentially emotional and related to motivation (Sonmez and Sirikaya, 2002). The term ‘conative’ has been coined to refer to the subsequent behaviour as a result of the combined cognitive and affective components of image (Sonmez and Sirikaya, 2002).

In terms of medical tourism, the formation of an attitude involves a prospective medical tourist with a high level of involvement actively searching for information about several potential medical tourism destinations and subsequently making a cognitive and affective evaluation on the basis of personal motives and the information that has been found (Hawkin et al., 2001). A behavioural inclination or conative attitude is then realised in accordance with the attitude that is formed (Hawkin et al., 2001, White, 2005, Um and Crompton, 1990). If the attitude sequence about a medical tourism destination is understood in this way, it is obvious that information about a destination, both intended and unintended, is a critical aspect of image formation and a destination’s ultimate marketing success.

2.4.2 Role of destination image in choice of destination

Like all images, destination images are formed and stored in the memory of prospective tourists as a composite of discursive memories about a stimulus (Philips and Jang, 2007, Boush and Jones, 2006) (Chon, 1990, Echtner and Ritchie, 1993). This destination image is

then utilised when a decision about choosing a destination is to be made (Echtner and Ritchie, 1993, Purdue, 2000). In forming such an holistic attribute-based image, discursive memories are used to evaluate a destination on the criteria of most importance to the consumer in order to form an 'evoked' set of alternatives for consideration (Chon, 1990, Hong et al., 2006) (Chi and Qu, 2008).

A destination must manage the elements of its image well if it is to develop a superior holistic image that is likely to lure a larger number of higher-paying clients (Echtner and Ritchie, 1993, Ibrahim and Gill, 2005). In doing so destinations need to be aware that, although prospective tourists are exposed to a large amount of information about various destinations, a holistic image is actually inferred from small number of attributes that are directly related to the primary motivation to travel (Boush and Jones, 2006, Hankinson, 2005, Purdue, 2000). Moreover, as noted by Chon (1991), the image of a destination determines favourable or unfavourable behaviour irrespective of the objective reality (Chon, 1991). In other words, an adverse (or 'wrong') destination image held by prospective tourists indicates ineffective or inappropriate positioning strategies (Sonmez and Sirikaya, 2002, Kotler and Gartner, 2004, Baloglu and Brinberg, 1997, Hosany et al., 2007).

For prospective tourists without first-hand experience of a particular destination, the image of that destination is formed from various external sources of information, of which marketing communication is arguably the most important (Rittichainuwat et al., 2001, Tasci and Gartner, 2007) (Baloglu and Brinberg, 1997, Sonmez and Sirikaya, 2002). The strategy and materials of marketing communication must therefore be carefully designed to ensure awareness of the destination; however, inclusion in the initial consideration set does not mean that a destination will necessarily be included in the evoked set. This is especially the case with affluent tourists who have more experiences because these people tend to form a much smaller evoked set (Hong et al., 2006, Tasci and Gartner, 2007, Crompton and Ankomah, 1993). In other words, marketing communication can be said to be effective only when it can create a definite preference for a destination, rather than mere awareness of it.

In the case of repeat visitors who already have first-hand experience of a particular destination, the situation is somewhat different from those without first-hand experience (Fakeye and Crompton, 1991). The inclination of such 'repeaters' is heavily dependent on

their previous experience with the destination (Ibrahim and Gill, 2005, Sonmez and Graefe, 1998). As Fakeye and Crompton (1991) have noted, the level of previous first-hand experience has a mutually reciprocal relationship with the image that is held. In general terms, the destination image formed by this group of visitors tends to be more complex, accurate, and favourable than the image formed by prospective visitors with no experience of the destination (Echtner and Ritchie, 1993, Pike, 2005, Tasci, 2006).

According to the ‘disconfirmation paradigm’, the satisfaction of any consumer with a service depends on a comparison of expectation and actual experience; if the actual experience is superior to the *a priori* expectation, satisfaction results (Lovelock et al., 2001, Chon, 1990, Sirgy and Su, 2000). Destination image plays a key role in such expectation. Visitors, especially first-time visitors, largely base their expectations on the destination image that they have previously formed before the actual visit—especially with regard to such attributes as the friendliness of the host population and their attitude towards tourism (Mackay and Fesenmaier, 1997, Beerli and Martin, 2004, Kim and Yoon, 2003, Gallarza et al., 2002). Destination marketers therefore need to portray positive images that are consistent with the actual experience that will be enjoyed by visitors (Britton, 1979). If so, the satisfaction that results is likely to lead to repeat visits and positive word-of-mouth recommendation (Zeithaml et al., 2006).

Given similar motivations among tourists and similar sets of attributes among alternative destinations, the destination that is chosen is likely to be the one that portrays a positive image with regard to the attributes of particular interest to travellers (Purdue and Meng, 2006, Walker and Ben-Akiwa, 2002). In the case of medical tourism, Thailand therefore needs to be perceived as being both advanced in medical technologies *and* offering value for money. Thailand already has a positive image as a result of its natural scenery, variety of attractions, reputation for value for money, and friendliness of the host population; in contrast, negative aspects of its image include crowded cities, heavy pollution, and reputation for sex tourism and related businesses (Rittichainuwat et al., 2001, Henkel et al., 2006). Some aspects of this image pose challenges for the country if it is to position itself as a medical tourism destination—because the positive attributes are not directly relevant to the desirable image of a medical tourism destination, and the negative attributes diminish the likelihood of the country being included in the consideration set of potential medical tourists.

Some modification of the image might thus be required if the country is to achieve the new position that is envisaged.

To change the image held by tourists, marketing strategies must be carefully considered to ensure that convincing positive information is provided through the various marketing channels. Research has shown that the greater the discrepancy between the communicated information and the previously held image, the higher is the probability that such information will actually be remembered (Larsen and George, 2006, Molina and Esteban, 2006, Tasci and Gartner, 2007). However, care should be taken because it has also been shown that information that does not conform to the core beliefs of recipients is likely to produce cognitive dissonance (Kotler and Gartner, 2004, Reynolds, 1965). In such a situation, the new information will fail to change the attitude because it will not be processed and will eventually be forgotten (Tasci and Gartner, 2007, Moutinho, 1987). Marketers must therefore be careful not to communicate things that might contradict the core beliefs of recipients (Moutinho, 1987, Tasci and Gartner, 2007).

2.4.3 General characteristics of a destination image

Gallarza et al. (2002), who conducted a review of the literature on destination image, concluded that all such images can be described as: (i) complex; (ii) multiple; (iii) relative; and (iv) dynamic. Each of these general characteristics is discussed in detail below.

2.4.3.1 Complex nature

In analysing a destination image, it is important to appreciate its complex nature. Because prospective tourists come from different backgrounds and have had different life experiences, they tend to perceive and interpret phenomena, including a destination's image, in different ways (Baloglu and McCleary, 1999). In addition, their motivations will differ, which adds another layer of complexity to a destination image complex (Gallarza et al., 2002, Sirgy and Su, 2000).

In the context of medical tourism, these differences in background and motivation inevitably mean that medical tourists are unlikely to hold the same image of a destination as that held by leisure tourists.

2.4.3.2 Multiple nature

A destination image can be formulated with a variety of objectives in mind—including destination marketing, sustainable development, and destination management (Gallarza et al., 2002). Moreover, any analysis of the construct must take account of the fact that a holistic destination image is derived from the prospective tourist's perception (and discursive memories) of various destination attributes ((Chi and Qu, 2008); (Gallarza et al., 2002). The way in which each individual attribute is portrayed in constituting the composite image must be carefully managed by destination marketers who should be aware of the multiple nature of any destination image (Gallarza et al., 2002, Purdue, 2000).

2.4.3.3 Relative nature

Any destination image is relative because it necessarily stands in comparison to the images of other destinations (Gallarza et al., 2002, Hong et al., 2006). Moreover, no single object (including a destination) is perceived in the same way by everyone because people from different backgrounds and motivations take different attributes of the object into account in forming their perception of it. Prospective visitors with different lifestyles, interests, and opinions are therefore likely to hold different images of the same destination. Image can thus be used for psychographic segmentation (Kotler and Keller, 2006).

Moreover, it has been shown that visitors with different images about a destination use different criteria and exhibit different behaviours in making a destination selection. Destination image can therefore also be used as a basis for behavioural segmentation (Kotler and Keller, 2006).

2.4.3.4 Dynamic nature

Because any destination image is subject to changing influences and circumstances, it should be managed to ensure that it responds appropriately to the changing environment and

competition (Gallarza et al., 2002, Echtner and Ritchie, 1993). Marketers must be aware of these influences and adapt their tactics accordingly (Gallarza et al., 2002).

2.4.4 Components of destination image

Image is a dynamic phenomenon that is developed from the tourist's cognitive and affective impressions of various image elements (Echtner and Ritchie, 1993, Tasci and Gartner, 2007, Walmsley and Young, 1998, Baloglu and McCleary, 1999, Beerli and Martin, 2004, Baloglu and Brinberg, 1997). The term 'cognitive image' refers to objective knowledge about the destination, whereas an 'affective image' refers to a person's feelings about the various attributes of the destination and the destination as a whole (Baloglu and McCleary, 1999, Lin et al., 2007). The two types of image components interact to form a composite overall image of the destination (Beerli and Martin, 2004, Tasci, 2006, Echtner and Ritchie, 1993).

As with attitudes towards all high-involvement purchasing decisions, the *cognitive* components of a destination image act as antecedents to the affective components (Baloglu and Brinberg, 1997, Baloglu and McCleary, 1999, Sonmez and Sirikaya, 2002, Beerli and Martin, 2004). People thus tend to form an initial evaluative perception of a phenomenon according to what they know about it (Ajzen, 2001). If the information about a destination is positive and consistent with their core values and personal goals at a given point in time, there is a high probability that the image that is formed regarding that destination will be strong and positive (Philips and Jang, 2007, Tasci and Gartner, 2007). In other words, if prospective tourists receive positive information about the objective reality of a destination's attributes, they tend to form positive discursive images about those attributes and, eventually, a positive holistic image about the destination.

The *affective* image of a destination is usually based on the motivation to travel (Baloglu and Brinberg, 1997). Tourists selectively attend to the cognitive components of a destination before forming attitudes about whether the attributes are likely to satisfy the needs that have motivated them to travel (Gibson et al., 2008, Philips and Jang, 2007, Baloglu and Brinberg, 1997). Prospective medical tourists thus form an affective image by first attending

to information about such destination attributes as quality of care and potential for savings, rather than opportunities to travel.

According to Tasci and Gartner (2007), not all portrayed images will attract the attention of their intended target audiences. This is because ‘information clutter’ and limited information-processing ability induce people to attend only to messages that are consistent with their interests and goals (Tasci and Gartner, 2007, Hawkin et al., 2001, Crotts, 2000). In view of this phenomenon, Tasci and Gartner (2007) coined the term ‘image capital’ to refer to the need to manage the important aspects of an image prudently by ensuring that all marketing communication activities reach the appropriate audiences effectively (Tasci and Gartner, 2007, Lovelock et al., 2001). Nonetheless, it is not easy to manage ‘image capital’ effectively. The image of a destination is not easily controlled because all images are complex and dynamic (Pike, 2005). According to Beerli and Martin (2004), the two factors that must be considered are: (i) information sources; and (ii) personal factors. The former refers to the message that determine whether a destination becomes included in the initial consideration set, whereas the latter refers to the way in which this information is learnt and interpreted (Boush and Jones, 2006, Baloglu and McCleary, 1999).

With regard to information sources, three categories of ‘image agents’ should be noted: (i) *induced* image agents (marketing communication activities undertaken by the destination itself and by other tourism and hospitality organisations located in the destination); (ii) *organic* image agents (social channels of information that provide informal information about a destination); and (iii) *autonomous* image agents (information sources outside the control of destinations) (Echtner and Ritchie, 1993, Reynold, 1965, Tasci and Gartner, 2007, Britton, 1979). The marketing of a destination will be successful only if the information portrayed by these three types of image agents is consistent and effective (Baloglu and Brinberg, 1997) (Belch and Belch, 2001). However, although content is important, the context in which the information is presented by these three types of image agents is even more crucial because of the profound effects of mood on ultimate decision-making (Boush and Jones, 2006, Belch and Belch, 2001). Each of these three types of image agents is discussed in more detail below.

2.4.4.1 Induced components of destination image

Induced image agents portray the image as intended by the destination through all forms of marketing communication activities undertaken by the destination itself and by other tourism and hospitality organisations located in the destination (Tasci and Gartner, 2007, Britton, 1979). The information provided by induced agents is thus under the control of the destination and presumably in accordance with the overall positioning strategy (Ibrahim and Gill, 2005, Foley and Fahy, 2004).

Beerli and Martin (2004) subdivided induced image into two sub-categories: (i) overt (which refers to direct marketing communication activities such as advertising and sales promotion); and (ii) covert (which refers to associated activities to promote a positive image, such as cause-related activities and public-relations exercises).

The problem with induced images, especially overt ones, is that they can suffer from a lack of credibility and trustworthiness in the eyes of target audiences (Hawkin et al., 2001). Moreover, induced images can also be distorted by various factors—including ineffective communication, erroneous decoding of the intended image by recipients, and the intervening influences of image agents (Belch and Belch, 2001, Tasci and Gartner, 2007).

An important aspect of induced image is the notion of ‘destination brand’ (Radisic and Mihelic, 2006). A destination brand implies promises given by the destination to tourists with a view to inducing certain beliefs to the ultimate advantage of the destination (Tasci and Kozak, 2006). Although the concepts of ‘destination image’ and ‘destination brand’ are similar and interrelated, the two are different in the sense that the image represents the perception that the destination wishes to induce, whereas the brand builds upon this perception in making implicit promises (Tasci and Kozak, 2006). Like product brands, destination brands are thus intended to convey promises of functional and/or emotional benefits that mirror the reality (Gnoth et al., 2007, Padgett and Allen, 1997, De Chernatony and Dall' Olmo Reiley, 1999). However, branding a destination is a complex task because of the multi-dimensional nature of the product, the importance of geographical factors, the potential for inconsistency between the portrayed image and reality, insufficient resources and

funding (which is a common problem in destination branding), and the variety of stakeholders involved (Pike, 2005, Cho and Yong, 2006, Larsen and George, 2006).

According to De Chernatony and Dall'Olmo Reiley (1999), the most effective way of branding a destination is to ensure that the brand really does mirror the reality and thus provides satisfaction through the nurturing of customer delight. It is also important to ensure, as much as possible, that the brand of the destination makes implicit promises that are congruent with the self-image of the prospective tourists (Hankinson, 2004).

Destination branding is usually undertaken by induced image agents with a view to attracting prospective visitors who have no first-hand experience of the destination. During the pre-visit stage, promotional materials (such as brochures and advertising) are important in influencing image formation among those without first-hand experience because they create awareness, stimulate desire, and create interest in the destination and activities being offered (Molina and Esteban, 2006, Baloglu and McCleary, 1999, Padgett and Allen, 1997, Tasci and Gartner, 2007).

Given the distorting and the changing environment in which an image is formed, destination marketers must be prepared to adjust the way in which they portray the induced image (Tasci and Gartner, 2007, Sonmez and Sirikaya, 2002). They must be adept in sensing the signs and quick to take effective actions to correct any negative images that might have been projected to prospective tourists (Britton, 1979, Bojanic, 1991). However, images (both positive and negative) take time to be established and, once established, are difficult to change (Rittichainuwat et al., 2001, Sonmez and Sirikaya, 2002, Chon, 1991); indeed, such image change can be time-consuming and costly (Fakeye and Crompton, 1991). In the case of Thailand, which has shaped its image around such touristic attractions as inexpensive shopping, historical sites, and friendly people, it must be recognised that none of these images, except perhaps inexpensiveness, is especially pertinent to medical tourism (Henkel et al., 2006). This poses challenges to the country as it strives to change its image in an attempt to promote itself as hub for medical tourism in the region.

2.4.4.2 Organic components of destination image

The term ‘organic image agents’ refers to social channels of information that provide information about a destination on an informal basis, including information about the idiosyncrasies of a destination (Beerli and Martin, 2004, Fakeye and Crompton, 1991). Word-of-mouth communication from peers and reference groups represents a significant influence on the image of a destination, especially for first-time tourists, because such informal information is usually judged to be trustworthy by recipients (Fakeye and Crompton, 1991, Um and Crompton, 1990, Na et al., 2006, Sonmez and Sirikaya, 2002).

The term ‘organic image’ is also applied to first-hand experience from an actual visit (Tasci and Gartner, 2007, Echtner and Ritchie, 1993). Although a destination image can be formed without an actual visit, first-hand experience of a destination makes a previously held image more realistic and subtle, thus reducing the stereotyping that is often associated with other image components (Echtner and Ritchie, 1993, Fakeye and Crompton, 1991, Tasci, 2006). First-hand experience with a destination thus allows travellers to become more confident in minimising the risk that is associated with making a destination choice (Purdue, 2000). Several studies have provided empirical evidence of the potential influence of destination experience, especially with regard to safety, scenic beauty, shopping opportunities, and general attitudes toward the destination as a whole (Chon, 1991).

The number of previous visits and the length of stay of each visit is said to determine the accuracy of the image that is formulated by first-hand experience, thus enhancing the confidence in choosing the destination for a repeat visit (Beerli and Martin, 2004, Purdue, 2000, Tasci and Gartner, 2007). However, some scholars have argued that the relationship between first-hand experience and the level of the image that is held might be U-shaped, especially in the case of long-stay visitors (Fakeye and Crompton, 1991). According to this view, visitors are faced with challenges in adapting themselves to the destination in the initial stages of their stay (thus diminishing the positive image), but then adapt and feel more comfortable in the middle stages of their stay (thus enhancing the image), before perceiving more of the negative aspects of the destination as their long-term stay proceeds (thus again diminishing the image). However, this ‘U-shape’ effect is only applicable to long-stay tourists, who constitute a relatively small proportion of the whole population of visitors.

2.4.4.3 Autonomous components of destination image

Autonomous image agents are information sources that are beyond the control of destinations (Larsen and George, 2006). These sources of information include news, documentaries, and guidebooks (Beerli and Martin, 2004). In this regard, negative images derived from issues not directly related to tourism can result in a negative overall image and a reduced intention to visit (Sonmez and Sirikaya, 2002).

Destination image is significantly influenced by autonomous image agents because information from these sources can cause some aspects of an image to be formed long before prospective tourists even begin to think about visiting a destination (Hanlan et al., 2006, Fakeye and Crompton, 1991). For example, the images conveyed in films and documentaries can have a positive or negative effect on public perceptions of a destination (Larsen and George, 2006). Turkey has been nominated as an example of a country that has suffered from a distorted image as a consequence of autonomous image agents, whereas New Zealand has gained a more favourable image as a result of being featured in various films (Larsen and George, 2006, Sonmez and Sirikaya, 2002).

2.4.4.4 Influence of various image agents

Studies have shown that tourists consider that the information gained from organic and autonomous agents is more credible and trustworthy than information from induced image agents (Hawkin et al., 2001, Tasci and Gartner, 2007). Autonomous information about political unrest and natural catastrophes can be very influential, especially if potential travellers lack previous personal knowledge of the destination (Sirakaya et al., 1997). However, in marketing Thailand as a medical tourism destination, it is likely that images about coup d'état, for example, might be less injurious to the destination image as perceived by prospective medical tourists than would news about, say, medical malpractice for example.

In summary, autonomous and organic image agents provide vital information about various aspects of a destination that, even if unintended by the destination or hospitality organisations, nevertheless has a significant contributing role in determining how a destination image is formed (Echtner and Ritchie, 1993). Indeed, some prospective tourists

can begin to assimilate such information even before they begin to think of travelling to a destination and before they are exposed to induced images (Hankinson, 2004). The initial image might be confirmed or modified (positively or negatively) as travellers are exposed to such induced images and are ultimately directly exposed to the destination itself (Um and Crompton, 1990, Fakeye and Crompton, 1991). First-hand experience with the destination forms a more permanent attitude or image about a destination—in accordance with operant conditioning learning, which posits that the key to learning is reinforcement (either negative or positive) (Hawkin et al., 2001).

2.4.5 Influence of recipient's characteristics

The characteristics of recipients—including socio-demographic factors, motivation, and prior knowledge—can influence the way in which people comprehend and interpret information; these factors thus have the potential to affect image formation (Beerli and Martin, 2004, Tasci and Gartner, 2007).

However, empirical evidence has failed to establish statistically significant relationships between the socio-demographic characteristics of prospective tourists and destination image formation (Beerli and Martin, 2004, Moshin and Ryan, 2004, Tasci and Gartner, 2007). Some scholars have continued to assert that differences do exist in the destination images formed by tourists of different demographic groups; however, it would seem that these assertions merely reflect the conventional wisdom about the behaviours of particular groups of tourists (Henkel et al., 2006). For example, to illustrate the influence of age and gender on image formation, it has been asserted that younger tourists regard adventurous activities as being more important than do older tourists, and that female tourists regard shopping opportunities as being more important image attributes than do their male counterparts (Rittichainuwat et al., 2001, Henkel et al., 2006).

In contrast to the failure to establish any statistically significant findings with regard to socio-demographic factors, the country of origin of tourists has been shown to be significant in determining destination knowledge and a propensity to travel (Beerli and Martin, 2004, Tasci and Gartner, 2007, Hosany et al., 2007). For example, geographic proximity and cultural distance have an influence on how a destination image is formed in terms of

knowledge and so-called ‘psychic distance’ (Fletcher and Brown, 2002, Sonmez and Sirikaya, 2002). When the ‘psychic distance’ between two countries is not great, the people of the countries share certain biases, histories, and preferences—which can influence the whole destination-consumption process (Tasci and Gartner, 2007). Moreover, when considering country of origin, marketers must also take into account such factors as distance and types of travel involved (Tasci and Gartner, 2007).

Culture is another internal factor that appears to influence the formation of a destination image. Culture, which can be generally defined as a set of beliefs and ways of life consistently held by the members of a society (Hawkin et al., 2001), appears to influence perceptions, impressions, and interpretation of information (Tasci and Gartner, 2007). Culture is thus a factor to be considered in assessing the images formed by people from different backgrounds; however, culture is not believed to be the most important factor that influences the formation of a destination image (Tasci and Kozak, 2006).

Other factors that might influence destination image include level of experience with the destination, motivation, access to information sources, revisit intention, and so on (Fakeye and Crompton, 1991, Rittichainuwat et al., 2001, Beerli and Martin, 2004, Philips and Jang, 2007). As Martineau (1985) has noted, a destination image consists of many components that are psychological or functional—many of which cannot be directly observed (and are therefore difficult to measure).

2.5 Summary of medical tourism, destination image, and destination choice

The literature review presented above has discussed the concepts of *medical tourism*, *destination choice*, and *destination image*. It is appropriate to conclude this chapter with a summary of the relationships among these concepts.

2.5.1 Motivation of medical tourists

Motivation, which can be understood as the reason for any behaviour, is the key factor that determines the whole decision-making process outlined in this chapter—including the tourist's search for information, the assembling of a consideration set, the formation of a destination image, and the evaluation of alternative destinations (Mansfeld, 1992). The primary 'push factor' is the intrinsic motivation to attain improved health and well-being, given certain economic and temporal constraints (Carter and Kulbok, 2002, Jang and Cai, 2002).

Prospective medical tourists include the uninsured, the uninsurable, and the underinsured, for whom economic factors and the availability of medical services play a significant role in their decision to travel to other countries for medical procedures (Awadzi and Panda, 2005).

In summary, the motivation of prospective medical tourists is a desire for medical care of comparable quality to that available at home, delivered in a cost-effective manner with immediate availability. This motivation stimulates the prospective tourist's subsequent search for information, formation of a consideration set, and evaluation of alternatives (Mansfeld, 1992).

2.5.2 Information search by medical tourists

Stimulated by the motivation described above, prospective medical tourists engage in an extensive information search because the level of involvement for medical procedures is high. They therefore undertake an internal search by consulting their long-term memory regarding their product expertise and product familiarity (Zaichkowsky, 1985, Gursoy, 2003). If prospective medical tourists possess product expertise (which, in this case, equates with destination expertise), they tend to rely heavily on this prior knowledge (Gursoy and McCleary, 2004). Similarly, prospective medical tourists who have a moderate degree of product familiarity tend to rely on their internal search to a greater extent than an external search because they are confident that the knowledge that they have will enable them to make

a good choice decision (Gursoy, 2003). However, prospective medical tourists with high levels of familiarity tend to rely more on an extensive external search because they are able to assimilate a great deal of information from a variety of sources while focusing on the limited number of attributes that are especially important to them (Gursoy and McCleary, 2004).

In choosing information sources, medical tourists are likely to rely on information from health-care professionals and word-of-mouth advice, although they do also consult brochures from destinations and non-commercial information (such as news and documentaries).

In searching for, and processing, information about alternative destinations, prospective travellers selectively attend to information about the destination attributes that are directly relevant to their motive to travel (Baloglu and Brinberg, 1997). In the case of prospective medical tourists, they are particularly interested in information about quality of care, the potential for savings, post-operative care, hygiene, security, and accessibility. In forming their initial consideration set, prospective medical tourists consider only destinations that appear to be comparable with their home countries in terms of these attributes. This initial consideration set is then modified as prospective medical tourists continue to engage in active information search from external sources—especially from doctors and insurance companies.

2.5.3 Destination image formation by medical tourists

A holistic image of each alternative medical tourism destination is formed as a result of prospective tourists choosing to attend to information that is consistent with their motivation (Baloglu and Brinberg, 1997). This initial image of a destination, which is formed during the stage of assembling the initial consideration set, can be confirmed or modified during subsequent active information searches (Crompton, 1992). This confirmation or modification of the destination image influences the process of making an ultimate destination choice (Crompton, 1992).

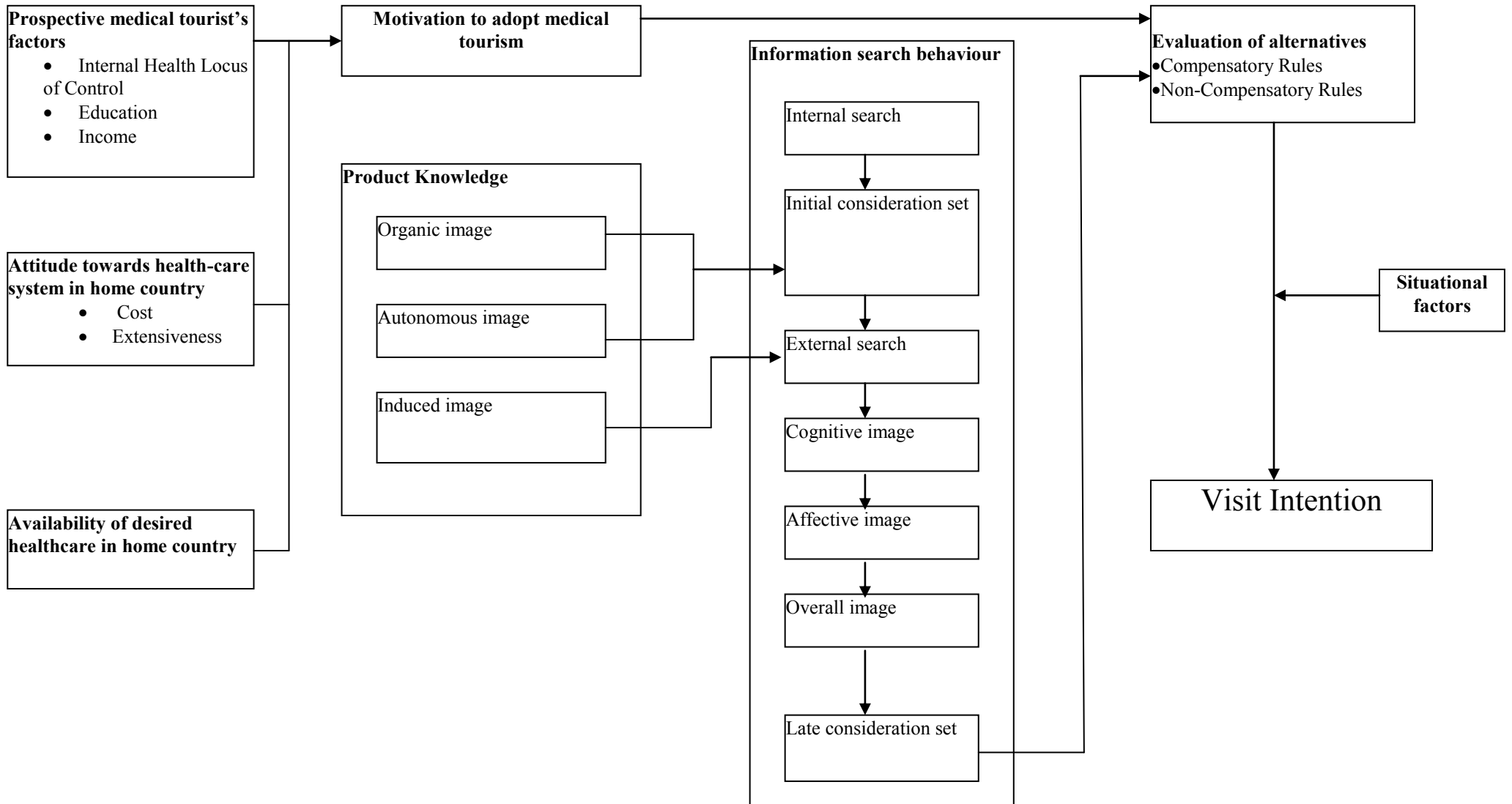
2.5.4 Evaluation of alternative medical destinations

In evaluating alternatives for a late consideration set, prospective medical tourists assign a level of utility to the various attributes in each alternative that pertain to their motivational needs (Crouch and Louviere, 2001). It is important to note that prospective medical tourists tend to exert significant mental effort to this process because medical tourism is associated with a perception of significant personal risk and is therefore characterised by high involvement in the purchase decision (Sonmez and Graefe, 1998, Zaichkowsky, 1985).

In so doing, prospective tourists utilise so-called ‘decision rules’, which involve two types of criteria: (i) compensatory decision rules (which allow for tradeoffs between different destination attributes); and (ii) non-compensatory decision rules (which do *not* allow for such tradeoffs) (Mansfeld, 1992). In the case of medical tourism, the quality of the medical procedures offered by a destination constitute a ‘non-compensatory rule’, whereas the potential for savings constitutes a ‘compensatory rule’. Other destination attributes that conform to compensatory rules include hygiene, safety, and security.

The relationships among the constructs discussed in this chapter are summarised in Figure 2.4

Figure 2.4: Salient factors influencing medical tourism destination choice



2.6 Research questions and hypotheses

While there has been much discussion of medical tourism and speculation about the reasons for its increasing popularity and the factors that influence people considering it for their needs, no known empirical studies had been conducted on the medical tourists' decision making processes at the time of writing. Drawing on the literature reviewed presented above, the research questions and hypotheses of this study can therefore be stated as follows.

The *primary research question* to be addressed in this study is:

- What are the salient factors that influence the destination choice of medical tourists?

This research question can be subdivided into subsidiary research questions (in accordance with the phases of the decision process) as follows:

- *Subsidiary research question 1.1*: What motivates people to engage in medical tourism?

With regard to this question, the following hypotheses are proposed:

- *Hypothesis H1*: People who engage in medical tourism tend to possess a high level of internal health locus of control.
- *Hypothesis H2*: People who engage in medical tourism think that medical care in their countries of residence is financially unaffordable.
- *Hypothesis H3*: People engage in medical tourism because they do not want to wait to receive medical treatment in their countries of residence.
- *Hypothesis H4*: People engage in medical tourism because the desired medical treatment is not available in their countries of residence

The second subsidiary research question can be stated as follows:

- *Subsidiary research question 1.2:* What is the nature of the information search behaviour of medical tourists when making a destination choice?

With regard to this question, the following hypotheses are proposed:

- *Hypothesis H5:* When choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential for savings than attributes about tourism opportunities
- *Hypothesis H6:* Prospective medical tourists with a low level of familiarity tend to engage in a high level of external search.
- *Hypothesis H7:* Prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies
- *Hypothesis H8:* Induced image produced by relevant medical tourism authorities is important in choosing a destination for medical tourism.

The third subsidiary research question can be stated as follows:

- *Subsidiary research question 1.3:* What are the most important criteria when choosing a medical tourism destination?

With regard to this question, the following hypotheses are proposed:

- *Hypothesis H9:* Quality of care is a non-compensatory rule; that is, prospective medical tourists tend to avoid destinations that are perceived to be inferior in terms of the quality of medical care that they provide.
- *Hypothesis H10:* Potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain attributes for a greater potential for cost saving.
- *Hypothesis H11:* The image of a destination with regard to hygiene has a positive effect on medical tourists' intention to visit

- *Hypothesis H12*: The image of a destination with regard to safety and security has a positive effect on medical tourists' intention to visit.

The following chapter will now outline how the current study was conducted in order to respond to this research agenda.

Chapter Three

Research Methodology

3.1 Introduction

This chapter discusses the research paradigm and methods adopted to address the research questions and hypotheses stated in Chapter 2. This includes consideration of data collection, sampling, measurements, and data analysis. The ethical issues related to the research are also discussed.

Following this brief introduction, the remainder of the chapter is divided into six main parts: (i) overview and justification of research paradigm; (ii) research design; (iii) survey administration and sampling methods; (iv) data analysis; (v) ethical considerations; and (vi) conclusion.

3.2 Overview and justification of research paradigm

Every scientific investigation is governed by a chosen research paradigm, which guides the actions of the researcher and the method of enquiry (Guba and Lincoln, 1991, Neuman, 2006b). In general terms, three research paradigms can be identified: (i) constructivist; (ii) critical; and (iii) positivist.

The *constructivist* paradigm is based on the belief that social reality depends on how people attribute meaning to the phenomena around them (Guba and Lincoln, 1991). According to this view of the world, which Weber termed *Verstehen* (Neuman, 2006b), any behaviour can be explained only by consideration of the complex motivations and perspectives of individuals within certain social contexts. Constructivists thus believe in the importance of context and the inter-relationships that exist between actors and other factors (Guba and Lincoln, 1991). Constructivist researchers are thus concerned principally with hermeneutic methodology and the particular idiographic relationship of one aspect of an enquiry to a larger whole (Neuman, 2006a).

The *critical* paradigm has certain similarities to constructivism in agreeing that social realities are essentially derived from the meaning given to them by the members of that society (Esterby et al., 1991). However, the critical paradigm differs from the constructivist paradigm in its belief that the world is ‘_ill-structured’ and in need of correction (Neuman, 2006b). Because such ‘_ill-structured’ societies are said to oppress certain groups within the society, critical researchers place supreme importance on the emancipatory direction of their research projects. Even if these ‘_oppressed’ members of society do not feel that they are being taken advantage of, critical researchers insist that certain social forces blind these people to the reality of their oppression; given these circumstances, the critical paradigm holds that it is the researcher’s responsibility to promulgate change (McMurray, 2005). Critical research thus claims to move the abstract to the concrete in bringing about change through deconstruction and reconstruction (Lee, 1990).

The *positivist* paradigm holds that scientific enquiry should be supported by objective empirical evidence through the testing of hypothesised relationships, with the implication that any findings can subsequently be utilised with confidence at different points in time (longitudinal) or with different populations (cross-sectional) (Davis, 2005). According to the positivist paradigm, the world exists externally and objectively; as such, the acquisition of knowledge about social reality can only be achieved by observation of the external reality in which human beings are posited as rational agents who behave in a predictable fashion (Esterby et al., 1991). With this world view, which implicitly holds that social reality is essentially ‘_static’ in nature, positivists tend to adopt the fact-finding methods of natural science whereby things are understood through cause-and-effect relationships (Guba and Lincoln, 1991). When analysing mental phenomena that are abstract in nature (such as attitude or intention), positivist researchers devise measurable constructs of a more ‘_concrete’ nature.

Positivist methodology thus principally involves the testing of hypotheses to confirm (or reject) proposed relationships between constructs. However, the findings of any given study can never be proved to be true in any absolute sense (Neuman, 2006b). The results can always be proved wrong by subsequent research projects using the same theory, which might provoke something new about the relationship of the constructs in question (Neuman, 2006b). Nevertheless, the findings are expected to serve as a basis for the prediction of future

behaviour. In adopting an interventionist approach (Guba and Lincoln, 1991) that aims to prove causal relationships, positivist researchers categorise their constructs into two types: (i) independent variables (which are essentially causes); and (ii) dependent variables (which are the effects that are of interest to the researchers).

Because the main purpose of the present study is to analyse the process by which medical tourists make decisions about destinations with a view to providing guidance to policy-makers who seek to promote medical tourism to their particular destination, the generalisability of the findings is clearly a critical issue in the research design of this study. The findings should be simple and easy to use, while being comprehensive enough to allow effective and astute decisions to be made; parsimony is thus required (Davis, 2005). Moreover, the study should be capable of replication when policy-makers seek to attract prospective medical tourists from markets not included in this particular study. Taking all of these matters into consideration, it can be reasonably argued that a positivist paradigm is the most appropriate for this study.

Table 3.1 summarises the ontology, epistemology, and methodology of the three paradigms described above, with the chosen positivist paradigm posited as the dominant paradigm for this particular study.

Table 3.1: Ontology, epistemology, and methodology of three research paradigms

Elements	Alternative paradigms		
	Dominant paradigm	Constructivist	Critical
Ontology	<p>Positivist</p> <p>Objective and external reality determined by natural mechanisms</p> <p>Investigator and reality are independent</p>	<p>Reality constructed by people (and researchers)</p> <p>No objective ‘truth’</p>	<p>Reality shaped by social and other forces</p> <p>Research should emancipate the perceptions of co-researchers and participants</p>
Epistemology	<p>Disinterested scientist (‘one-way mirror observer’)</p>	<p>Passionate participant</p>	<p>Transformative intellectual within a group</p>
Methodology	<p>Testing theory through survey, experiments, and verification of hypotheses</p>	<p>In-depth unstructured interviews, participant observation, action research, and grounded-theory research</p>	<p>Focus groups, participant observation, and action research</p>
Direction of research enquiry	<p>Measurement and analysis of generalisable causal relationships between variables</p>	<p>Development of knowledge about reality that is difficult to apprehend</p>	
Respondents’ perspective	<p>Emphasis on outsider perspective and being distant from data</p>	<p>Emphasis on ‘insider’s’ perspective and being part of the research process</p>	
Data-collection orientation	<p>Outcome/verification oriented</p>	<p>Process/discovery oriented</p>	

Source: Adapted from (Neuman, 2006b)

3.3 Research design

3.3.1 Definition and types of research design

A research design is a structure or ‘blueprint’ that details the procedures to be followed in a research project to obtain the desired information (Davis, 2005, Maholtra, 1999). A research design involves: (i) identification of the information that is required to address the research question; (ii) design of any exploratory/descriptive/ research required before undertaking the

substantive research; (iii) definition of constructs, scaling procedures, and measurement techniques; (iv) development of appropriate questionnaires; (v) consideration of sampling issues; and (vi) plan for data analysis (Maholtra, 1999). In making these decisions, tradeoffs are often necessary with regard to reliability and validity as a consequence of economic and time constraints and limited access to certain types of information (Davis, 2005).

Research designs can be classified into two types: (i) exploratory research (which aims to provide insights and general understanding of the research situation at hand); and (ii) conclusive research (which aims to assist decision-makers with the determination, evaluation, and selection of tasks in a given situation) (Maholtra, 1999). The present study clearly belongs to the latter type as it helps destination marketers in making a better managerial and marketing decision regarding medical tourism.

Research designs for such conclusive research can be further subdivided into two sub-groups: (i) descriptive research designs (which aim to explain or describe something relevant to the research questions); and (ii) causal research designs (which aim to identify the causal relationships existing between variables) (Maholtra, 1999). This research can also be argued that it is a descriptive research as seeks to provide a general description of the decision-making process of medical tourists in choosing a destination.

In the context of marketing research, descriptive research involves consideration of the characteristics of markets, the characteristics of customers, and their perceptions and attitudes. According to Maholtra (1999), this involves consideration of the so-called ‘6Ws’: ‘_who’, ‘_what’, ‘_when’, ‘_where’, ‘_why’, and ‘_way’. Such descriptive research in a marketing context can be undertaken by two survey methods: (i) cross-sectional surveys; and (ii) longitudinal surveys (Maholtra, 1999). Cross-sectional surveys collect data from one or more samples at a given point in time, whereas longitudinal surveys collect data from one or more samples at several points in time (Maholtra, 1999). The present research design adopts a cross-sectional approach as the opinions and experiences of a broad group of prospective medical tourists was desired, in addition to time and resource constraints.

3.3.2 Survey as major data-collection method

Two data-collection methods can be used in descriptive research: (i) observation (which belongs to the constructivist paradigm because it aims to collect data that will provide a rich description of the situations being examined); and (ii) survey (which belongs to the positivist paradigm because it aims to collect data that can be used to establish generalisable findings by testing the hypothesised relationships between constructs) (Esterby et al., 1991, Neuman, 2006b, Scanlan, 2002). Given that the objective of the present study is to provide findings that can be utilised by policy-makers to make better strategic decisions in the field of medical tourism, survey methods represent the most appropriate form of data collection for this study.

A survey obtains information by addressing relevant questions to an appropriate number of qualified respondents about their attitudes, intentions, and behaviour (Maholtra, 1999, Neuman, 2006a). Such questions seek information regarding the attributes of the hypothesised constructs by utilising appropriate scaling techniques for the measurement of each variable (Davis, 2005). For the purposes of the present study, the survey was therefore designed to explore the attitudes, opinions, and intentions of prospective medical tourists regarding their decision-making process in choosing between Thailand and its key competitors as a medical tourism destination.

3.3.3 Survey design

3.3.3.1 Types of variables and measures

The 12 hypotheses proposed at the end of Chapter Two contained 13 variables. Of these 13 variables:

- Nine can be identified as *independent* variables (that is, variables that affect other variables): (i) health locus of control; (ii) attitude towards health-care system in home country; (iii) availability of desired medical treatment in home country; (iv) importance of destination attributes; (v) level of product

familiarity'; (vi) importance of information sources'; (vii) perceived risk'; (viii) image of hygiene level of destination'; and (ix) image of safety and security of destination;

- Three can be identified as *intervening* variables (that is, variables that both affect, and are affected by, other variables): (i) motivation to engage in medical tourism'; (ii) information search behaviour'; and (iii) consideration sets'; and
- One identified as a *dependent* variable (that is, a variable that is affected by other variables): intention to visit'.

Different types of variables require different scaling techniques. By convention, four levels of measurement can be utilised:

* *Nominal scales*: These classify objects on a mutually exclusive basis with numbers or symbols that serve only as labels. The only statistical techniques applicable to nominal scale data are counting techniques (Davis, 2005, Maholtra, 1999). Three of the variables in the present study were suitable for nominal scales: (i) availability of desired medical treatment in home country'; (ii) information search behaviour'; and (iii) consideration sets'.

* *Ordinal scales*: These enable variables to be compared in cases where unknown differences exist between the rankings of items belonging to different variables (Davis, 2005). Apart from counting techniques, statistical techniques based on percentiles are applicable to ordinal-scale data (Maholtra, 1999). None of the variables in the present study were suitable for ordinal scales.

* *Interval scales*: These enable variables to be compared in cases where known differences exist between the rankings of items belonging to different variables. Interval scales are usually characterised by numerically equal intervals (and an arbitrary zero) (Maholtra, 1999, Davis, 2005). A variety of statistical techniques can be applied with interval scales (Maholtra, 1999). Ten of the variables in the present study were suitable for interval scales: (i) health locus of control'; (ii) attitude towards health-care system in home country'; (iii) motivation to engage in medical tourism'; (iv) importance of destination attributes'; (v) level of product

familiarity'; (vi) importance of information sources'; (vii) perceived risk'; (viii) image of hygiene level of destination'; (ix) image of safety and security of destination'; and (x) intention to visit'.

*

* *Ratio scales*: These possess all the qualities of the other scales, plus an absolute zero; all statistical techniques are applicable to the data from this type of scale (Maholtra, 1999, Davis, 2005). None of the variables in the present study were suitable for ratio scales.

Table 3.2 summarises the 13 variables and the type of measurement scale used for each in this study. A detailed description of the operationalisation of individual variables in the present study is provided below. A copy of the final survey is provided in Appendix 1.

Table 3.2: Summary of variables and measurement scales

No.	Variable	Type of variable	Measurement level	Source of scale for present study
1	Health locus of control	Independent	Interval	(Wallston et al., 1994)
2	Attitude towards health-care system in home country	Independent	Interval	Self-developed
3	Availability of desired medical treatment in home country	Independent	Nominal	Self-developed
4	Motivation to engage in medical tourism	Intervening	Interval	Adapted from (Sonmez and Sirikaya, 2002)
5	Importance of destination attributes	Independent	Interval	Self-developed
6	Level of product familiarity	Independent	Interval	(Sonmez and Sirikaya, 2002)
7	Information search behaviour	Intervening	Nominal	(Gursoy, 2003)
8	Importance of information sources	Independent	Interval	(Beerli and Martin, 2004)
9	Perceived risk	Independent	Interval	(Sonmez and Graefe, 1998)
10	Consideration sets	Intervening	Nominal	(Woodside and Lysonski, 1989)
11	Image of hygiene level of destination	Independent	Interval	Self-developed
12	Image of safety and security of destination	Independent	Interval	Self-developed
13	Intention to visit	Dependent	Interval	(Sonmez and Graefe, 1998)

3.3.3.2 Individual variables

Variable 1: Health locus of control

If an individual perceives that he or she has control over personal health and well-being, that person is said to have an internal locus of control; such a person is more prone to engage in healthy behaviour (Callaghan, 1998, Wallston et al., 1994, Carter and Kulbok, 2002). In contrast, those who perceive that their health and well-being are determined by external factors are said to have an external locus of control (Callaghan, 1998, Wallston et al., 1994); such a person is less prone to engage in healthy behaviour (Callaghan, 1998, Wallston et al., 1994, Carter and Kulbok, 2002). ‘Health locus of control’ is thus an independent variable of motivation to engage in medical tourism.

For the purposes of the present study, this variable was defined as follows:

Health locus of control is defined as an individual’s perception of his or her ability to control personal health and well-being as a result of: (i) the person’s own internal drive (‘internal health locus of control’); (ii) the influence of significant others (‘people health locus of control’); and/or (iii) chance (‘chance health locus of control’).

With regard to measuring this variable, Wallston et al. (1978) developed the concept of ‘health locus of control’ and a scale called the ‘Multidimensional Health Locus of Control’ (MHLC) for measuring it. This scale, which has been developed and modified by other scholars (Moshki et al., 2007), is comprised of three sub-scales: (i) ‘Internal Health Locus of Control’ (IHLC); (ii) ‘People Health Locus of Control’ (PHLC); and (iii) ‘Chance Health Locus of Control’ (CHLC) (Wallston et al., 1994). The MHLC scale consists of 16–24 items that can be adopted or modified to suit specific research needs. Respondents are asked to state their degree of agreement with statements pertaining to these items on 6-point Likert-type scale (Wallston et al., 1994). The scale has been demonstrated to be highly reliable, with all subscales yielding Cronbach’s alpha values greater than or equal to 0.70 (Wallston et al., 1994, Manning and Munro, 2007). However, the measurement of health locus of control on 6-point Likert-type scale does not allow neutral attitude with even number of items with

negative and positive attitudes. Therefore, 7-point scale was chosen in this study in order to allow respondents to express their neutral attitude.

In the present study, 16 statements taken from the MHLC were reworded to enhance their relevance to the specific context of motivation to engage in medical tourism. Respondents were asked to indicate their degree of agreement with these 16 statements on a 7-point Likert-type scale (in which 1 = ‘strongly disagree’; 7 = ‘strongly agree’). Table 3.3 lists the 16 items used to measure the variable of ‘health locus of control’ in this study.

Table 3.3: Items used to measure Variable 1 (‘Health locus of control’)

Item	Subscale
I can have better health by engaging in healthier behaviours	Internal health locus of control
Whether I have good or bad health is my own responsibility	
I have full control over how my health can be improved	
My current condition is the result of my choice of how I live my life	
My current health condition is the result of my own unhealthy behaviour	
I deserve credit if my health gets better and blame if it gets worse	
If I choose to live a healthier life, I should get healthier	Chance health locus of control
I am fully responsible for what happens in my life	
My imperfect health conditions happen to me by chance	People health locus of control
If I am to have better health, it is a matter of luck	
If I have regular medical check-ups, I am less likely to have any health problems	People health locus of control
Following a doctor’s advice strictly is the best way to keep myself healthy	
Other people play a big role in my health condition	
The type of support I receive from other people determines how healthy I am	
Regarding my health, I should only do what my doctors tell me to do	
Health professionals are responsible for my health condition	

Source: Adapted from (Wallston et al., 1994)

Variable 2: Attitude towards health-care system in home country

People are more likely to be motivated to engage in medical tourism if they believe that the cost of medical care in their home country is unaffordable, the waiting time is too long, and/or the desired medical treatment is unavailable (Ajzen, 2001, Awadzi and Panda, 2005). The more negative a person's attitude towards the health-care system in the home country, the higher is the likelihood that he or she will adopt medical tourism. 'Attitude towards health-care system in home country' is thus an independent variable of motivation to engage in medical tourism.

For the purposes of the present study, this variable was defined as follows:

Attitude towards health-care system in home country is defined as an overall psychological representation of medical care in the home country in terms of cost and waiting time.

Because there has been no previous quantitative study of consumer behaviour in medical tourism, a 9-item scale for measuring this variable was developed specifically for the present study on the basis of the relevant academic literature on medical tourism. Respondents were asked to indicate their degree of agreement with the statements shown in Table 3.4 on a 7-point Likert-type scale (1 = 'strongly disagree'; 7 = 'strongly agree').

Table 3.4: Items used to measure Variable 2('Attitude towards health-care system in home country')

Factor	Item
Cost	The cost of medical treatment in my home country is very high I might get myself into financial difficulty if I have to pay for my desired medical treatment My health-care plan does not cover all the treatment I need I have to spend a fortune to receive certain treatment in my home country Even for a serious illness, if I choose to receive certain treatment at home I have to pay part of the cost
Waiting time	My health condition will become much worse while I am waiting to receive treatment at home Health care in my home country requires a lot of paper work to be done and the system functions too slowly The health-care system in my country requires me to take too many steps to receive the medical treatment I need

Variable 3: Availability of desired medical treatment in home country

Prospective medical tourists are motivated to depart overseas for medical treatment if their desired treatment is unavailable in their home country (Awadzi and Panda, 2005, Chinai and Goswami, 2007, Jones and Keith, 2006). ‘Availability of desired medical treatment in the home country’ is thus an independent variable of motivation to adopt medical tourism.

For the purposes of the present study, this variable was defined as follows:

Availability of desired medical treatment in the home country is defined as the availability of a person’s desired medical treatment in their country of origin.

As with the previous variable, the absence of previous quantitative studies in this area means that no pre-existing scale exists for measuring the availability of the desired medical treatment in a respondent’s home country. For the purposes of the present study, respondents were therefore asked to state: (i) their desired medical treatment in travelling abroad to receive medical care; (ii) whether such treatment is available in their home country; and (iii) whether they are covered for this treatment by their respective health plan. The specific questions and the alternative responses are shown in Table 3.5.

Table 3.5: Questions asked to assess Variable 3 (‘Availability of desired medical treatment in home country’)

Question	Alternatives
1. For what reasons do you wish to travel abroad for medical treatment? [You may tick all alternatives that apply to your case.]	A. To cure an illness B. To improve my health C. For cosmetic surgery D. To have a medical check-up E. I would not consider travelling abroad for a medical reason
2. Is such a treatment available in your home country/country of residence?	A. Yes B. No C. Don’t know
3. Is this particular treatment covered by your current health plan?	A. Yes; fully covered B. Yes; partially covered C. No; not covered

Variable 4: Motivation to engage in medical tourism

The degree to which people are motivated to engage in medical tourism is likely to be positively correlated with the health locus of control, attitude towards existing health-care systems in the home country, and availability of a desired medical treatment in the home country. The level of motivation to engage in medical tourism is thus the dependent variable of variable 1 (‘health locus of control’), variable 2 (‘attitude towards health-care system in home country’), and variable 3 (‘availability of desired medical treatment in home country’).

Motivation also influences information search for evaluation of alternative destinations (Mansfeld, 1992). This variable can therefore also be posited as an independent variable for information search behaviour in the evaluation of alternatives.

It is thus arguable that the variable of motivation can be considered to be an *intervening* variable—because it is the dependent variable for the three variables noted above while also being an independent variable for search behaviour for evaluation of alternative destinations.

For the purposes of the present study, this variable was defined as follows:

Motivation to engage in medical tourism is defined as the degree to which a prospective medical tourist is motivated to consume medical tourism products.

With regard to measuring this variable, most previous studies of motivation to travel have sought to differentiate among various types of motivation by asking respondents about the perceived importance of various factors using Likert-type scales, and then analysing the data by principal component analysis (Beerli and Martin, 2004, Philips and Jang, 2007). However, given that the major motivation for medical tourists to travel is already apparent—that is, a desire for medical treatment of comparable quality at a more economical cost (Connell, 2006)—there is little need to explore the nature of the motivation itself; rather, the relevant question in the context of medical tourism is the *level of motivation* to adopt medical tourism. The present study therefore measured the variable of motivation in terms of the *level* of motivation.

For this purpose, the study adapted a scale from Sonmez and Sirikaya (2002), who measured the likelihood of their respondents' visiting Turkey using a Likert-type scale. In the present study, respondents were asked to rate their level of interest in travelling abroad for medical treatment on a 7-point Likert-type scale (in which 1 = 'not at all interested'; 7 = 'very interested'). Table 3.6 shows the question used to measure the level of motivation of respondents in adopting medical tourism.

Table 3.6: Question asked to assess Variable 4 ('Motivation to engage in medical tourism')

Question	Alternatives
How interested are you in receiving medical treatment in an overseas country?	1. Not at all interested 2. Uninterested 3. Somewhat uninterested 4. Indifferent 5. Somewhat interested 6. Interested 7. Very interested

Variable 5: Importance of destination attributes

When people are making decisions to satisfy motivation, attributes that are consistent with their motivation are cognitively evaluated before the whole destination is affectively evaluated as a potential solution (Beerli and Martin, 2004, Philips and Jang, 2007, Hawkin et al., 2001). The variable of importance of destination attributes is thus an independent variable of information search for evaluation of alternatives.

For the purposes of this study, the variable of importance of destination attributes was defined as follows:

The importance of attributes is defined as the relative degree of importance that prospective medical tourists attach to various attributes of a destination when making a choice of destination for receiving offshore medical treatment.

There is a vast literature on the measurement of destination attributes. The number of such attributes, including functional attributes and psychological attributes, can be vast—

which poses significant problems for the subsequent analysis of data (Beerli and Martin, 2004, Chon, 1991, Rittichainuwat et al., 2001). The collected data are therefore usually assessed by combining items into factors and conducting a factor analysis (Chon, 1991, Beerli and Martin, 2004, Rittichainuwat et al., 2001).

Because most studies in the literature have been conducted in the context of leisure tourism, relatively few of the scales are directly applicable to the present study—although Goodrich (1994) has asserted that destinations can bundle medical-tourism products with conventional tourism products. Nevertheless, attributes such as scenic beauty and cultural heritage are barely relevant to the current context. Other attributes—such as those related to safety, security and hygiene—are more relevant and can be adopted (with appropriate modification) in the present context. For the purposes of the study, it was therefore decided to develop an original list of attributes that are genuinely relevant to the motivation to travel for medical tourism.

In developing this list of attributes it was noted that Marlowe and Sullivan (2007) contended that medical tourists and health-plan sponsors pay attention to quality of care, potential for savings, and travel exposure. Sirakaya et al. (1997) claimed that safety and security issues can create serious problems for destinations in attracting prospective tourists. Sonmez and Sirakaya (2002) noted that destination attributes not directly related to tourism—including political instability, international conflict, hygiene, prostitution, and military intervention—can adversely affect the image of a destination. Chi and Qu (2008) identified accessibility as an important factor in forming a destination image. Drawing on these suggestions from the literature, it was apparent that potential for savings and quality of care are attributes that are directly related to medical tourists; moreover, safety and security, hygiene, the accessibility of a destination, and tourism opportunities are attributes that are probably of significance for medical tourists in choosing a medical tourism destination.

As a result of this review of the literature, 41 destination attributes were identified as being pertinent to medical tourism. These 41 attributes were categorised into six factors: (i) quality of care; (ii) potential for savings; (iii) safety and security; (iv) hygiene; (v) tourism opportunities; and (vi) accessibility. To validate the proposed scale, expert opinions in the field of tourism and medical tourism were solicited. These experts were asked to review the

proposed list of attributes and add or subtract any that they believed were missing or irrelevant. Both experts found the 6 attributes appropriate for exploring their saliencies to the medical tourism destination choice.

Respondents in the substantive study were asked to respond to items on a 7-point Likert-type scale (in which 1 = ‘strongly disagree’; 7 = ‘strongly agree’). Table 3.7 provides a full list of the 41 items (and the six factors into which they were eventually categorised).

Table 3.7: Items used to measure Variable 5 (‘Importance of destination attributes’)

Item	Factor	
My ideal medical tourism destination has many international standard hospitals with certified doctors and surgeons	Quality of care	
My ideal medical tourism destination has many international standard hospitals with high success rates of treatment		
My ideal medical tourism destination has surgeons who are educated abroad		
My ideal medical tourism destination has many international standard hospitals that specialise in my desired medical treatment		
My ideal medical tourism destination has many hospitals that are equipped with the most sophisticated medical equipment		
My ideal medical tourism destination has many hospitals that are affiliated with medical institutions and schools of international repute		
My ideal medical tourism destination has hospitals that provide care with a high ratio of registered nurses per patient		
My ideal medical tourism destination has health-care professionals who are fluent in several languages, including my native language		
My ideal medical tourism destination has various hospitals that have been accredited by institutions of international repute, including Joint Commission for Accreditation of Healthcare Organisations (JCAHO)		
My ideal medical tourism destination has a high level of infrastructure, such as luxurious hotels		
My ideal medical tourism destination has hospitals that coordinate with health-care providers in my home country so that I can be assured about quality of care		
My ideal medical tourism destination has hospitals that guarantee results of the treatment and are willingness to act in accordance with all relevant laws		
My ideal medical tourism destination provides the same medical treatment at a much lower cost than my home country		Potential for saving
My ideal medical tourism destination provides my desired medical treatment at a lower cost than other destinations		
My ideal medical tourism destination provides accommodation service at an affordable cost		
My ideal medical tourism destination can be accessed from my home country at low cost		
My ideal medical tourism destination has much lower cost of living than my home country		
My ideal medical tourism destination offers overall lower cost (combining the costs of medical treatments and all other travel costs)		
My ideal medical tourism destination is safe to travel to alone	Safety and security	
My ideal medical tourism destination has a low crime rate		
My ideal medical tourism destination is safe to walk on the street alone		

My ideal medical tourism destination is politically stable	
My ideal medical tourism destination has few natural disasters	
My ideal medical tourism destination has good security systems in buildings (fire evacuation systems, surveillance cameras, etc.)	
My ideal medical tourism destination has a safe environment	
My ideal medical tourism destination has no international conflicts	
My ideal medical tourism destination is not targeted for attack by terrorists	
My ideal medical tourism destination has a safe transportation system	
My ideal medical tourism destination has a level of hygiene similar to that of my own country	Hygiene
My ideal medical tourism destination is safe to buy food and drinks from general food vendors	
My ideal medical tourism destination has no epidemic diseases	
My ideal medical tourism destination has hygiene levels among health-care providers that are comparable with those in my country	
My ideal medical tourism destination has beautiful beaches	Tourism opportunities
My ideal medical tourism destination has great scenic beauty	
My ideal medical tourism destination has authentic historical sites	
My ideal medical tourism destination has good shopping facilities	
My ideal medical tourism destination has a variety of bars and nightclubs	
My ideal medical tourism destination has direct flights from where I live	Accessibility
My ideal medical tourism destination has an easy immigration policy	
My ideal medical tourism destination has a good transportation system	
My ideal medical tourism destination is in convenient proximity to my home country	

Variable 6: Level of product familiarity

There is a ‘_U-shaped’ relationship between product familiarity and the information search behaviour of prospective tourists; that is, prospective tourists with high levels of familiarity and those with low levels of familiarity tend to rely on external search, whereas tourists with moderate levels of familiarity tend to rely on internal search (Gursoy, 2003). The variable of ‘_level of product familiarity’ is thus an independent variable of the search behaviours of prospective medical tourists.

For the purposes of this study, this variable was defined as follows:

Level of product familiarity is defined as the perception that prospective medical tourists have about: (i) their knowledge of the procedures involved with their desired medical treatment; and (ii) their knowledge of Thailand as a medical tourism destination.

Sonmez and Sirikaya (2002) measured the level of familiarity with a destination using a one-item scale. Other scholars have measured familiarity with destinations by assessing the ability of respondents to recognise and recall various marketing communications (Gursoy, 2003, Sonmez and Sirikaya, 2002). In the present study, respondents were asked to rate their degree of familiarity with the procedures involved with their medical treatment and their degree of familiarity with Thailand as a medical tourism destination using two 7-point Likert-type scales (in which 1 = ‘_very unfamiliar’; 7 = ‘_very familiar’). Table 3.8 shows the questions and alternative responses used to measure this variable.

Table 3.8: Questions asked to assess Variable 6 (‘Level of product familiarity’)

Question	Alternatives
How familiar do you consider yourself to be with the procedures involved with your desired medical treatment?	1. Very unfamiliar 2. Quite unfamiliar 3. A little unfamiliar 4. Unsure 5. A little familiar 6. Quite familiar 7. Very familiar
How familiar do you consider yourself to be with Thailand as a medical tourism destination?	1. Very unfamiliar 2. Quite unfamiliar 3. A little unfamiliar 4. Unsure 5. A little familiar 6. Quite familiar 7. Very familiar

Variable 7: Information search behaviour

Information search refers to an individual’s self-instruction to retrieve prior knowledge about a prospective purchase (internal search) or consult external sources of information about the prospective purchase (external search) (Gursoy, 2003, Hawkin et al., 2001). If the prior knowledge retrieved from an internal search does not enable individuals to make a confident choice decision, they are motivated to engage in external search with a view to refining their consideration set. (Gursoy, 2003, Hawkin et al., 2001). ‘_Information search behaviour’ is thus an intervening variable between motivation and consideration set.

For the purposes of the present study, this variable was defined as follows:

Information search behaviour is defined as self-instruction to engage in internal and external searches for information pertinent to: (i) procedures associated with particular medical treatment; and (ii) potential medical tourism destinations.

To assess whether respondents relied on an internal search or an external search in choosing a destination, Gursoy (2003) simply asked the respondents if they had made decisions based on their prior knowledge; a positive response signified an internal search, whereas a negative response was taken to indicate an external search. A similar assessment was adopted in the present study. Respondents were asked if their prior knowledge had made them confident in choosing a destination and a health-care provider for their desired medical treatment. Three alternative responses were provided: ‘yes’, ‘no’, and ‘not sure’. A ‘yes’ response was taken to indicate an internal search, whereas a ‘no’ response was taken to signify an external search.

Variable 8: Importance of information sources

The initial image of a destination is usually formed by information randomly received from organic and autonomous sources (Tasci and Gartner, 2007). This initial image is subject to change as prospective medical tourists actively consult information from induced sources to assist their decision-making process (Tasci and Gartner, 2007). Importance of information sources is thus an independent variable of evaluation of alternatives and intention to visit.

This variable was defined for the purposes of the present study as follows:

Importance of information sources is defined the relative importance accorded by potential medical tourists to various external sources of information (induced, organic, and autonomous) that provide information relevant to procedures involved with medical treatment and potential medical tourism destinations.

Beerli and Martin (2004) measured the relative importance of information obtained by tourists from three types of image agents: (i) induced image agents (brochures, advertising campaigns, travel agency staff, the Internet); (ii) autonomous image agents (guidebooks, news

reports, documentaries, articles); and (iii) organic image agents (friends and family members). The relative importance of each was measured on 7-point Likert-type scale.

Because the motivation of medical tourists and the structure of the medical tourism industry are different from that of leisure tourism, some modification of the items used by Beerli and Martin (2004) is required for application in the present context. Respondents were therefore asked to indicate the importance that they attached to various information sources using a 7-point Likert-type scale (in which 1 = ‘not at all important’; 7 = ‘extremely important’). Table 3.9 lists the items used to measure this variable.

Table 3.9: Items used to measure Variable 8 (‘Importance of information sources’)

Image agents	Information source
Induced	Information from brochures about medical tourism produced by national authorities of potential destinations Information from brochures produced by medical-care providers in potential destinations Advertising campaigns by destinations about medical tourism Personal selling by staff of travel agencies specialising in medical tourism Information from health insurance policy providers Information from Internet websites
Autonomous	News about medical services in potential destinations Reports about medical services in potential destinations Documentaries about medical services in potential destinations Articles about medical services in potential destinations
Organic	Information from family and friends Information from personal doctors

Source: Adapted from (Beerli and Martin, 2004)

Variable 9: Perceived risk

Because medical tourism involves personal health and well-being, prospective medical tourists tend to perceive that the level of risk involved in making a choice of destination is high (Zaichkowsky, 1985, Bieger and Laesser, 2004, Hanlan et al., 2006). The level of perceived risk is thus an independent variable for information search behaviour.

For the purposes of the present study, this variable was defined as follows:

The perceived risk is defined as the perceived uncertainty associated with the choice of a medical tourism destination.

Most studies of tourism have measured the level and types of perceived risk by asking respondents to indicate the level of perceived risk associated with various purchasing situations on Likert-type scales (Sonmez and Graefe, 1998, Dholakia, 2000). In the present study, the scale of Sonmez and Graefe (1998) was adapted to the context of medical tourism, as illustrated in Table 3.10. Respondents were asked to indicate the importance that they attached to different types of risk associated with overseas travel for medical treatment on a 7-point Likert-type scale (in which 1 = *very unimportant*; 7 = *very important*).

Table 3.10: Items used to measure Variable 9 ('Perceived risk')

Type of risk	Item
Functional risk	Possibility that the desired medical treatment will not turn out as expected
Financial risk	Possibility that overall costs (treatment and other expenses) will not provide potential for large savings
Health risk	Possibility that my health condition will worsen as a result of travelling to a foreign country
Physical risk	Possibility of physical danger or injury due to accident
Satisfaction risk	Possibility that travelling overseas for medical treatment will not provide a satisfactory outcome
Psychological risk	Possibility that travelling overseas for medical treatment will not match my self image
Political instability Risk	Possibility of becoming involved in political turmoil during my stay in a foreign country
Social risk	Possibility that my choice of destination will affect other people's opinion of me
Time risk	Possibility that travelling abroad for desired medical treatments will take much longer than I expect

Source: Adapted from (Sonmez and Graefe, 1998)

Variable 10: Consideration sets

An initial consideration set is formed from prior knowledge about a product or a service of interest (Crompton, 1992). As a result of active information search, which is normally the case with products with high involvement and high perceived risk, the initial consideration set is changed and a late consideration set is formed (Crompton, 1992, Mansfeld, 1992).

Consideration set is thus an intervening variable because it functions as an independent variable of intention to visit and a dependent variable of information search.

For the purposes of the present study, this variable was defined as follows:

Consideration set is defined as a set of destinations of which prospective medical tourists are aware as acceptable potential medical tourism destinations.

Most previous studies that have examined this variable have simply used open-ended questions and free choice by asking respondents to state the names of destinations belonging to a consideration set (or different subsets of a consideration set) (Purdue and Meng, 2006, Woodside and Lysonski, 1989). Some have also explored the reasons for naming these destinations (Purdue and Meng, 2006). In the present study, respondents were asked a single open-ended question in which they were requested to state the destinations that first come to mind when considering travelling abroad for medical treatment.

Variable 11: Image of hygiene level of destination

Although it is only indirectly relevant to the technical quality of care, the level of hygiene does signify the general standard of practice of health-care providers in a particular destination and is believed to be a factor in prospective medical tourists choosing to reject certain medical tourism destinations (Purdue and Meng, 2006). This variable is therefore an independent variable of intention to visit.

For the purposes of the present study, this variable was defined as follows:

Image of hygiene level of destination is defined as the perception of medical tourists regarding the overall level of hygiene that exists in a potential medical tourism destination.

Because this variable has not been explored quantitatively in any previous studies, the scale for the present context was therefore self-developed. Respondents were asked to rate their perception of the overall hygiene levels of Thailand and its competing medical tourism destinations (Malaysia, Singapore, and India) on a 7-point Likert-type scale adopted from

Strategic and Marketing Magazine (2007) (in which 1 = very unhygienic'; 7 = very hygienic').

Variable 12: Image of safety and security of destination

Like the previous variable, the image of safety and security held by potential medical tourists might cause a destination to be chosen or rejected because it can impinge on quality of care (Purdue and Meng, 2006). This variable is thus another independent variable for intention to visit.

This variable was defined for the purposes of the present study as:

Image of safety and security of a destination is defined as the perception of prospective medical tourists about overall safety and security levels in potential medical tourism destinations.

The scale for measuring this variable was also self developed. Respondents were asked to rate their perception of the safety and security of Thailand and its competing medical tourism destinations (Malaysia, Singapore, and India) on a 7-point Likert-type scale adopted from Strategic and Marketing Magazine (2007) (in which 1 = not at all safe and secure'; 7 = extremely safe and secure').

Variable 13: Visit intention

The destination that prospective tourists intend to visit is arguably the alternative that is perceived to be the best solution to satisfy the tourists' needs given the situational circumstances (Philips and Jang, 2007, Mansfeld, 1992). Because this study is constrained temporally and economically, visit intention was used as a surrogate for actual choice behaviour.

For the purposes of this study, the variable was defined as follows:

Visit intention is defined as a prospective medical tourist's likelihood of choosing a destination for his or her desired medical treatment.

Sonmez and Sirikaya (2002) used a 4-point Likert type scale to measure intention to visit Turkey. This measure was adapted to the context of medical tourism for the present study. Measuring variables of interval measurement which are intangible in nature with even number item does not allow neutral attitude (Davis, 2005). Besides, all variables of interval measurement in this research are measured by using 7-point item scales which allow precise findings and neutral attitudes. Respondents were therefore asked to indicate the likelihood that they would visit Thailand and its competing destinations (Malaysia, Singapore, and India) for medical treatment on 7-point Likert-type scale (in which 1 = ‘_very unlikely’; 7 = ‘_very likely’).

Demographic factors

Most studies in the field of tourism and hospitality have failed to demonstrate significant associations between demographic factors and destination choice (Moshin and Ryan, 2004, Beerli and Martin, 2004, Tasci and Gartner, 2007). For example, Moshin and Ryan (2004) examined such variables as age, gender, marital status, income and education, but found no significant relationship between destination choice and any of these socio-demographic factors except for income. Nevertheless, it was deemed appropriate in the present study to include all of these factors, as well as country of residence and employment status. Country of residence was included in this study because the research was conducted via four major locations where gatekeepers promoted the survey to their database (United Arab Emirates, Singapore, Hong Kong, and Australia) (Service Promotion Department, 2007). Furthermore, some of the respondents to the online survey actually resided in other countries as will be noted in the demographic results in Chapter 4. Employment status was included because employment status might be associated with different levels of benefits in health-care plans and insurance policies.

3.3.3.3 Validity and reliability of scales

The term ‘_reliability’ refers to the dependability of a scale or the extent to which a scale yields consistent results when the measurement is replicated (Neuman, 2006b, Maholtra, 1999). The term ‘_validity’ refers to the fit of the measure to the real world or the extent to which different scales are mutually exclusive and collectively exhaustive (Neuman, 2006b, Maholtra, 1999).

Some degree of validity and reliability was assured for the scales proposed for the present study because most of the scales were adapted from previous studies conducted by reputable scholars. Self-developed scales were based on a review of the literature and input from experts in the field; pilot studies were conducted to assess (and, if necessary, to improve) their validity and reliability.

Reliability

With regard to reliability, it is generally accepted that multivariate scales demonstrate internal consistency (or equivalence reliability) if they yield a Cronbach's alpha value of at least 0.70 (Manning and Munro, 2007, Neuman, 2006b). Such 'internal consistency' refers to statistical agreement among the constituent items of a composite variable in terms of inter-item correlation and item-to-total correlation (Manning and Munro, 2007). A pilot study was utilised to assess (and, if necessary, to improve) the internal consistency of all scales (see below). Furthermore, reliability of the data in the main study was assessed through the use of Cronbach alpha scores.

Validity

With regard to validity, the present study assessed *content* validity, *criterion* validity, and *construct* validity.

The term 'content validity' refers to the extent to which the proposed scales really do represent the constructs pertinent to the research question (Maholtra, 1999). Such content validity was assessed in the present study by conducting an extensive review of the literature and by soliciting the opinions of two experts in the field of medical tourism. The first expert was a former Governor of the Tourism Authority of Thailand and senior advisor to the Minister for Tourism and Sport. The second expert was a current member of the advisory board of 'Medical Tourism Thailand', which is a consortium of Thai health-care providers specialising in the provision of medical services to international patients. Appropriate adjustments to the proposed scales were made on the basis of this expert opinion.

The term 'criterion validity' refers to the extent to which the scales measuring independent variables predict the variation in the dependent variable (Maholtra, 1999, Davis,

2005). In the present study, a pilot study was utilised to establish (and, in necessary, adjust) the criterion validity of the scales (see below).

The term ‘construct validity’ refers to the difference between scales measuring different constructs (‘convergent validity’) and the similarity of scales measuring similar constructs (‘discriminant validity’) (Maholtra, 1999, Davis, 2005) (Neuman, 2006b). In this study, the proposed scales in the questionnaire were compared for similarities and differences with the findings of previous studies measuring similar and different constructs. For the scales measuring constructs that have not been previously used quantitatively, principal component analysis was conducted.

Pilot study

To assist in the assessment of reliability and validity, a pre-test version of the questionnaire was pilot-tested after ethical approval had been obtained. The proposed questionnaire was tested in writing with a ‘judgment sample’ of 30 Australian adults. The responses were analysed using Cronbach’s alpha coefficient, item-to-total correlation, inter-item correlation, and principal component analysis. Appropriate adjustments to the questionnaire were then made in consultation with the thesis supervisor.

3.4 Survey administration and sampling methods

Sampling design involves five major steps: (i) defining the target population: (ii) selection of sampling frame; (iii) determination of sampling methods; (iv) determination of sample size; and (v) selection of sampling unit and survey administration (Zikmund, 2003, Maholtra, 1999, Davis, 2005). Each of these is discussed in more detail below.

3.4.1 Target population

The first step of any sampling process is to define a target population from within the wider population of potential subjects in accordance with the relevant parameters of a study and the potential generalisation of any finding of the research (Maholtra, 1999, Neuman, 2006b) (Zikmund, 2003, Maholtra, 1999). Given that the primary objective of the present study was to identify the salient factors that determine the choice of a medical destination by prospective

medical tourists, the first criterion for inclusion in the target population was people who have an interest in medical tourism.

Prospective medical tourists from the major markets for Thailand were prioritised in accordance with information from the Service Promotion Department of the Tourism Authority of Thailand. These markets included the Middle East, North America (USA and Canada), Europe (especially the Scandinavian countries, Germany, Austria, and the UK), and the Asia–Pacific region (especially Japan, Korea, Singapore, Hong Kong and Australia). Given the economic and time constraints pertaining to this study, the target population was limited to people from four of these countries on the basis of two criteria: (i) proficiency in the English language; and (ii) geographical convenience. The four chosen markets were Australia, Singapore, Hong Kong, and the United Arab Emirates.

3.4.2 Sampling frame

Any sampling frame is subject to potential error by over-representing or under-representing the actual population within the given parameters (Davis, 2005, Zikmund, 2003). The selection of a sampling frame is thus crucial for any quantitative research project because a mismatch of the sampling frame and the actual population could result in distorted findings (Zikmund, 2003).

In the present study, the sampling frame was selected on the basis of the fundamental parameters noted above; (i) interest in medical tourism; and (ii) fluency in the English language. More specifically, the sampling frame for the study was defined as prospective medical tourists who had acquired information from travel agencies specialising in medical tourism and/or from international the sales representative offices of Thai health-care providers in Australia, the United Arab Emirates, Hong Kong, and Singapore. As noted above, these four markets were selected on the basis of their geographical convenience and the general level of English proficiency of the people in these countries. Because there are obviously many other people in the world who would have met the basic criteria but were not included in the sampling frame, it is acknowledged that there is potential for the sampling

frame to under-represent some groups in the total population. This will be addressed further in the limitations section of the concluding chapter of the thesis.

3.4.3 Sampling methods

Sampling methods can be broadly divided into two types: (i) probability sampling (in which members of the population have a known chance of being included in the sample); and (ii) non-probability sampling (in which members of the population do not have a known chance of being selected (Zikmund, 2003).

The results obtained from *probability* sampling can be confidently generalised to the population from which the sample is drawn (Zikmund, 2003, Sekaran, 2000). Examples of such methods include:

- *Simple random sampling*: whereby elements of the sample from the selected sampling frame are included by using mathematical techniques (Maholtra, 1999). Despite its ability to yield the most accurate findings, simple random sampling requires a well-developed sampling frame, which is very difficult to develop (Maholtra, 1999, Neuman, 2006b).
- *Systematic sampling*: whereby the number of elements in the sampling frame is divided by the desired sampling size and the n^{th} element (the nearest integer of the division result) is included in the sample (given that the elements in the sampling frame are not organised according to predetermined rules) (Davis, 2005).
- *Stratified sampling*: which is more appropriate for populations that are composed of various sub-populations (unlike simple random sampling and systematic sampling, which are both based on the assumption that the population is homogeneous) (Neuman, 2006b). The strata (and their respective sizes) are identified in accordance with the composition of the population. Sampling elements are then included in each stratum using simple random or systematic random sampling methods (Zikmund, 2003).
- *Cluster sampling*: whereby the population is divided into clusters and a limited number of clusters are chosen for study (usually due to economic constraints)

(Neuman, 2006b). Within the chosen clusters, elements are selected by simple random sampling (Davis, 2005). Cluster sampling is appropriate for cases in which the sampling frame of the whole population cannot be obtained (Neuman, 2006b).

*

The results obtained from *non-probability* sampling cannot be generalised to the whole population; nevertheless, such techniques do yield acceptable results at a much lower cost (Davis, 2005). Non-probability sampling methods include:

- *Judgmental sampling*: whereby personal judgment is used by the researcher to select elements that are likely to be informative for inclusion in the sample (Maholtra, 1999). Judgmental sampling is appropriate in cases in which the population is difficult to reach (such as a product launch or a new market development) (Neuman, 2006b).
- *Convenience sampling*: whereby all elements of analysis that are conveniently available are included in the sample. This approach is applicable to research projects in which a large sample is required (as in the case of consumer goods) (Zikmund, 2003, Maholtra, 1999). This sampling method has been criticised for its potential to under-represent certain (non-convenient) groups within the population (Zikmund, 2003).
- *Snowball sampling*: whereby connections or networks of potential respondents emanating from initially selected respondents are used in accordance with the principles of judgmental sampling (Neuman, 2006b). Through referrals from the initial cohort of respondents, the sample size is expanded until the number of names is exhausted or an adequately sized sample is reached (Davis, 2005). Like other non-probability sampling methods, snowball sampling has been criticised for potential under-representation of certain groups within the whole population.

In the present study, it was obviously impossible to ascertain the exact number of people in the world who satisfied the basic criteria (interest in medical tourism and proficiency in English). A finite number could not therefore be achieved in the sampling frame. All probability sampling techniques were therefore inappropriate. Moreover, convenience sampling and quota sampling techniques were not applicable because the general population of people conveniently available were unlikely to be those with a strong interest in

medical tourism; in addition, appropriate methods for determining a quota within the general population was not at all apparent. It was therefore decided that the most appropriate sampling method for the present study was *judgmental sampling*, complemented by *snowball sampling*.

Having made this decision, the international offices of the Tourism Authority of Thailand in the four identified markets noted above were approached for assistance. These offices served as ‘gatekeepers’ in these markets to travel agencies specialising in medical tourism and the international sales representative offices of Thai health-care providers. These agencies agreed to distribute an e-mail invitation to customers on their databases who had previously sought information about medical tourism. An e-mail introducing the research project was sent to these people by the relevant agency requesting them to visit an Internet website on which the questionnaire was posted. To complement the Internet survey, written questionnaires with pre-paid postage envelopes were sent to these agencies for distribution to people who walked in to the agency and indicated a preference to complete the survey via a paper version.

3.4.4 Sample size

In determining the sample size, the three key considerations are: (i) the degree of accuracy; (ii) the degree of diversity of the population; and (iii) the number of variables to be examined (Neuman, 2006b). In most cases these factors are positively correlated with sample size. However, as Maholtra (1999) has noted, this does not necessarily mean that huge sample sizes are routinely required; indeed, different purposes require different numbers of respondents. Table 3.11 shows conventional sample sizes for different purposes in marketing research.

Table 3.11: Minimum and typical sample sizes for market research

Research purpose	Minimum sample size	Typical sample size
Problem identification	500	1000–2500
Problem-solving research	200	300–500
Product test	200	300–500

Test-marketing studies	200	300–500
TV/radio/print advertisement (per commercial)	150	200–300
Test market audits	10 stores	10–20 stores
Focus group	6 groups	10–15 groups

Source: (Maholtra, 1999)

The present study is best represented by the category of ‘problem-solving research’ in Table 3.11. As such, it would seem that a sample of 300–500 respondents would be appropriate. A desired sample size of 300 was therefore chosen. In this regard it is noteworthy that Manning and Munro (2007) have suggested a ‘rule of thumb’ regarding sample size, whereby 100 is considered ‘poor’, 200 is considered ‘fair’, and 300 is considered ‘good’. It would thus seem that a sample size of 300 respondents was appropriate for this study.

3.4.5 Survey administration

The term ‘survey administration’ refers to data collection using a survey instrument to obtain information pertinent to the research question from a large number of respondents (Davis, 2005) (De Vaus, 1995). When choosing a survey-administration method, five issues must be considered: (i) obtaining an appropriate response rate; (ii) obtaining a representative sample; (iii) design of a questionnaire; (iv) quality of responses; and (v) implementation problems.

Four methods of survey administration are commonly applied: (i) personal interview; (ii) telephone survey; (iii) postal-mail survey; and (iv) Internet survey.

Personal interview involves interpersonal discourse initiated by researchers with the aim of obtaining the required information (De Vaus, 1995). Personal interview usually yields the highest response rate of any survey method in a normally distributed sample (De Vaus, 1995). To conduct an effective personal interview, an interrogation plan should be prepared to ensure that appropriate questions are asked to collect all information that is pertinent to the research questions. Personal interview enables researchers to ask more complicated questions than other modes; moreover, the questionnaire can be somewhat longer than surveys administered by other methods (De Vaus, 1995, Davis, 2005). However, personal interview is said to be more prone to response and non-response errors because: (i) respondents who are busy and those who wish to preserve their privacy might choose not to take part in the survey

(Davis, 2005); and (ii) respondents might distort their answers by giving answers that they perceive to be socially acceptable or acceptable to the interviewer (Davis, 2005, De Vaus, 1995). In addition, the cost of conducting personal interviews is usually greater than other modes of survey administration (De Vaus, 1995). In view of these problems, personal interview was not chosen as the mode of data collection for the present study because the sample was geographically dispersed and there were legal issues involved in relation to the privacy of respondents.

Telephone surveys offer advantages over personal interviews in terms of speed. However, unstructured interviews by telephone are not considered desirable due to the lack of personal cues and intimacy between interviewers and interviewees (Davis, 2005). Response rates are also questionable because not all people have access to a telephone and not all telephone numbers are used for voice communication (Davis, 2005, De Vaus, 1995). Some potential respondents might hesitate to cooperate with a telephone survey for security and privacy reasons (Davis, 2005). The cost of telephone surveys can also be high in the case of an international survey (Davis, 2005). For these reasons, telephone survey was not chosen for this study.

Postal mail survey usually provides the lowest response rate; however, a good survey design can improve the response rate (De Vaus, 1995). Respondents who are not well educated can face problems with the complex content of some written questionnaires. However, mail surveys are not as much affected by response errors as other methods because there is no physical interaction between the interviewers and respondents.

Internet surveys offer advantages in terms of being easy to administer and usually having higher response rates (Davis, 2005). However, it is believed that this mode of survey administration is more appropriate for better educated and younger respondents (Davis, 2005). Online or Internet surveys are therefore considered to be appropriate for collecting data in more developed economies where people are generally better educated and have greater access to the Internet (Cabanoglu et al., 2001). Respondents tend to complete Internet surveys more quickly than postal mail surveys (Cabanoglu et al., 2001). Moreover, web-based surveys are the most economical mode of data collection (Cabanoglu et al., 2001).

Table 3.12 summarises the advantages and disadvantages of different modes of survey administration.

Table 3.12: Advantages and disadvantages of modes of survey administration

	Method			
	Personal interview	Telephone survey	Postal mail survey	Internet survey
Respondent identification	Excellent	Good	Fair	Good
Flexibility	Excellent	Good	Fair	Good
Anonymity of respondent	Poor	Fair	Excellent	Fair
Accuracy on sensitive data	Fair	Fair	Good	Good
Control of interviewer effect	Poor	Fair	Excellent	Excellent
Rigidity of scheduling requirement	Poor	Fair	Excellent	Excellent
Time required	Fair	Good	Fair	Excellent
Response rate	Good	Fair	Fair to Poor	Excellent
Cost	Poor	Good	Good	Excellent

Source: (Davis, 2005)

Taking all of these issues into consideration, it was decided to use a web-based survey as the major mode of data collection. This was complemented by some hardcopy questionnaires distributed directly to customers of the selected travel offices with return-paid postage envelope to the offshore offices of the Tourism Authority of Thailand. Because the four proposed markets were geographically dispersed, personal interview and telephone survey were not economically viable options. In addition, questions about medical treatment can raise sensitive issues which, depending on cultural norms, might lead to distorted responses if obtained by telephone or personal interviews. Moreover, in the United Arab Emirates, personal interviews between males and females might be considered inappropriate (McMuarray, 2007, Bouma, 2000). Internet survey was therefore chosen as the best method to obtain a high response rate while preserving the privacy and anonymity of respondents.

Postal mail survey was chosen as the complementary data collection method because some prospective medical tourists, especially older respondents, might not be computer literate. The whole survey period was conducted over a three month period from 20 October to 29 December 2008, after the completion of the pilot survey.

3.5 Data analysis

3.5.1 Data preparation and coding

Data preparation involved five activities: (i) checking questionnaire responses and excluding unsatisfactory surveys; (ii) editing of partially incomplete questionnaires; (iii) coding of data; (iv) cleaning of data; and (v) statistical adjustment (Maholtra, 1999).

With regard to the first of these, some returned questionnaires were excluded from the sample after data collection had been concluded. These included: (i) incomplete questionnaires with insufficient data for further analysis; and (ii) disqualified questionnaires from respondents who chose option E (I would not consider travelling abroad for medical reasons’).

With regard to editing the questionnaires, those with partially incomplete data were assigned missing values (as appropriate) and checked for consistency of responses. Inconsistent surveys were also disqualified and excluded from the sample (Maholtra, 1999).

Coding then proceeded by assigning values to the responses reported by respondents. These were then recorded in accordance with the SPSS (version 14) software statistical program.

After coding, each of the variables was checked for a normal distribution. Outliers for nominal variables were detected using boxplot, and cases outside the three-box range were excluded from the analysis for that particular nominal variable (Manning and Munro, 2007). Multivariate outliers for interval and ratio variables were detected by calculating Mahalanobis distance; these were fixed as appropriate (Manning and Munro, 2007).

3.5.2 Selection of statistical technique

After data preparation had been completed, the scales were transformed as needed according to the nature of the items. Composite variables were computed for further analysis and checked for reliability and validity. They were also checked for normality of score distribution using z-score as the major indicator (Manning and Munro, 2007).

It was decided that the statistical techniques to be adopted in this study would include: (i) Pearson's correlation coefficient; (ii) analysis of variance; (iii) principal component analysis; and (iv) multiple linear regression (Manning and Munro, 2007). Variables of interval measurement that satisfied an assumption of normality were tested with parametric statistical techniques—including Pearson product moment correlations, analysis of variance, and multiple correlation coefficients. Variables of interval measurement that failed to satisfy an assumption of normality were treated with non-parametric statistical techniques—including Spearman's rank order correlation, the Kruskal–Wallis test, and the Mann–Whitney U test.

3.6 Ethical considerations

As a form of social science research, business research deals with human respondents who must be treated with respect, justice, integrity, and beneficence (Australian_Research_Council, 2007). When potential respondents are asked to participate in such research, researchers must be mindful of the fact that they are actually seeking permission to intrude on the privacy of these people, and obtaining *informed consent* to participate is therefore crucial. In this regard, Bouma (2000) proposed five ethical principles that should guide researchers in conducting a study such as the one reported in this thesis. The application of these five principles in the context of the present study is explained below.

3.6.1 Principle 1: Dignity and respect

The first ethical principle enunciated by (Bouma, 2000) is that all participants must be treated with dignity and respect. In designing this research, the physical and psychological well-being of all participants, especially with regard to privacy, was a paramount concern. This issue was discussed in detail with the supervisor. As a result, the strategy of reaching potential participants with the assistance of the Tourism Authority of Thailand was suggested as an ethical approach. In addition, the questionnaire was designed in such a way that respondents were not required to divulge individual identities.

3.6.2 Principle 2: Literature review

The second ethical principle enunciated by (Bouma, 2000) is that research must be based on an extensive literature review under the supervision of qualified and experienced persons. Such a literature review enables a researcher to see how other scholars have dealt with similar problems in the past. Supervision by a qualified and experienced person ensures that the researcher seeks appropriate guidance in dealing with various issues. In the present study, an extensive review of previous studies in all fields related to the research has been undertaken under the close supervision of a highly qualified and experienced supervisor.

3.6.3 Principle 3: Benefits and risks

The third ethical principle enunciated by (Bouma, 2000) is that the benefits of the research must justify the risks involved.

In terms of benefits, no quantitative studies of the behaviour of medical tourists had previously been conducted. The potential benefits of the findings for patients, health-care providers, and relevant policy-makers were therefore extensive in terms of creating better choices for medical tourists and monitoring the quality of the medical services provided to them.

In terms of risk, this research can be described as a ‘_low risk’ undertaking because the only detriment suffered by participants was the loss of time involved in responding to the survey questionnaire (Australian_Research_Council, 2007). The questions included in the

questionnaire did not require participants to divulge any confidential information about personal or socially sensitive issues. The choice of an Internet survey as the major mode of survey administration minimised physical contact between the researcher and respondents. It was therefore felt that the benefits to be derived from this research justified the low level of risk.

3.6.4 Principle 4: Voluntary and informed participation

The fourth ethical principle enunciated by (Bouma, 2000) is that participation must be both informed and voluntary.

Informed consent was ensured with the Internet survey by providing introductory letters outlining the nature of the study. These communications indicated: (i) the identity of the researcher and the university; (ii) the purpose of the research; (iii) the nature of the questions; (iv) the approximate length of time required to complete the survey; and (v) advice on how to make a complaint to the university if desired. Copies of these communications can be found in Appendix 1. In the case of the hardcopy (postal mail) questionnaire, the same introductory letter was sent as a covering document to the written questionnaire. Every effort was thus made to ensure that participation in the present study was an informed decision (Australian_Research_Council, 2007).

With regard to *voluntary participation*, there was no coercion of any kind; nor were incentives used. The participation of all respondents was thus entirely voluntary. Moreover, the introductory communications contained a clause stating that participants were free to withdraw from the study at any time.

3.6.5 Principle 5: Public and informative research

The fifth ethical principle enunciated by (Bouma, 2000) is that research must be made public and must contribute to the knowledge of the scientific community. Copies of the completed thesis will be made available in the library of Southern Cross university and the DBA centre. Any scholars interested in the topic will have full access to the thesis.

3.7 Conclusion

This chapter has explained that the present research is a quantitative study conducted in accordance with the positivist paradigm. The study incorporates 13 interrelated variables that were measured to test 12 hypotheses (as noted in Chapter Two). The target population of this research includes those who: (i) have a demonstrated interest in medical tourism; and (ii) are proficient in the English language. Judgmental sampling and snowball sampling were chosen as the sampling methods, and an Internet survey was chosen as the major method of survey administration. After data collection, the data were screened and edited before further analysis. Throughout the design process, ethical considerations have been carefully taken into account.

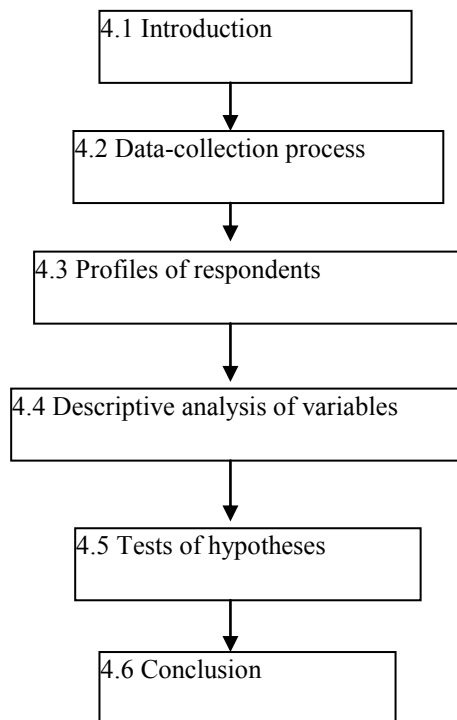
Chapter Four

Data Analysis

4.1 Introduction

This chapter reports on the analysis of the data collected in accordance with the methodology described in the previous chapter. The data-collection process is reported in Section 4.2. Respondents' profiles are reported in Section 4.3. Variables are discussed in Section 4.4. Section 4.5 addresses the hypotheses proposed in Chapter 2. Finally, a conclusion to the chapter is provided in Section 4.6. Figure 4.1 outlines the structure of this chapter.

Figure 4.1: Structure of Chapter Four



4.2 Data-collection process

4.2.1 Pilot study

After the research was approved by the university's Ethics Committee, a pilot study was conducted. An introductory message and information sheet about the study was sent from the Sydney office of the Tourism Authority of Thailand (TAT) to 268 prospective respondents who had enquired about health-care services in Thailand.

Forty respondents completed the questionnaire online. Of these 40 completed questionnaires, 8 were identified as invalid because respondents stated that they were not considering travelling abroad for medical treatment (option E of Question 1). A total of 32 valid questionnaires were therefore included in the pilot study.

Composite variables were tested for validity and reliability using item-to-total correlations, inter-item correlations, principle component analysis, and Cronbach's alpha (Manning and Munro, 2007).

For a composite variable to be considered valid, the mean score of the composite variable should correlate with all items constituting the variable (greater than 0.50); moreover, these constituent items should correlate with each other (greater than 0.30) (Manning and Munro, 2007). In addition, principal component analysis should extract only one factor (eigenvalue greater than 1.00) from all constituent items (Davidson et al., 2002).

With regard to reliability, Cronbach's alpha value for the constituent items should be greater than 0.70 (Manning and Munro, 2007).

All composite variables were checked for validity and reliability in accordance with these criteria. As a consequence of the pilot study, some items were deleted, some were added, and some were modified to make the scales more valid and reliable. Items that were deleted, added, or modified are presented in Table 4.1. Details of these modifications are as follows.

The variable of *health locus of control* was measured by three sub-scales: (i) internal health locus of control (IHLC); (ii) chance health locus of control (CHLC); and (iii) people health locus of control (PHLC). Because the initial scale contained only two items for measuring CHLC, it was not surprising that the level of reliability was below the accepted criterion (0.70) (Manning and Munro, 2007). Two other items related to CHLC, which had been adapted from Form B of health locus of control, were added to the questionnaire to make the composite variable more reliable (Wallston et al., 1994).

The variable of *information sources* was measured by three sub-scales: (i) induced image agents; (ii) autonomous image agents; and (iii) organic image agents. One item under *autonomous image agents* was re-designated from *information from Internet* to *information from non-commercial websites* (which included websites of professional associations, web-boards, and online communities) to make the scale clearer to respondents. One item belonging to *organic image agents* (*testimonials from those who have received medical treatment in potential destinations*) was added to make this composite variable (*organic image agents*) more reliable.

According to a senior executive of a Thai health-care provider, respondents who already have experience with medical tourism products should be distinguished from respondents who have no such experience. An *additional question* was therefore added to Part 3 of the questionnaire: *Have you ever visited any of the following countries for medical reasons?*

The *destination attributes* were divided into six categories: (i) quality of care; (ii) saving potential; (iii) safety issues in potential destinations; (iv) hygiene issues in potential destinations; (v) tourism opportunities; and (vi) accessibility. Two items related to quality of care (*my ideal medical tourism destination has surgeons who are educated abroad*; and *my ideal medical tourism destination has high levels of infrastructure, such as luxurious hotels*) were deleted from the questionnaire to increase the reliability level. One item related to saving potential (*my ideal medical tourism destination provides accommodation at an affordable cost*) was also deleted because this action increased Cronbach's alpha value from 0.879 to 0.910. Two items related to accessibility of potential destinations (*my ideal medical tourism destination has an easy immigration policy*; and *my ideal medical tourism*

destination has a good transportation system⁶) were also deleted to shorten the questionnaire based on feedback from the pilot study participants

The modifications made to the questionnaire as a result of the pilot study are shown in Table 4.1. The modified version of the questionnaire was used for data collection for the main study.

Table 4.1: Modifications to questionnaire as a result of pilot study

Modified variables	Items deleted	Items added	Items modified
Health locus of control: 'chance locus of control' (CHLC)	None	I am destined to have the health problems which I currently suffer from It is no one's fault that I have my current health problem	None
Information source (autonomous image agents)	None	None	Information from non-commercial websites (websites of professional associations, web-boards, and online communities)
Experiences with destinations as medical tourism destinations		Have you ever visited any of the following countries for medical reasons?	None
Information source (organic image agents)	None	Testimonials from those who have received medical treatment in potential destinations	None
Quality of care	... has surgeons who are educated abroad ... has high level of infrastructure such as luxurious hotels	None	None
Saving potential	... provides accommodation service at an affordable cost	None	None
Access	... has an easy immigration policy ... has a good transportation system	None	None

4.2.2 Data collection for main study

Data collection for the main study occurred between 20 October 2008 and 29 December 2008. This was conducted with the assistance of certain appropriate gatekeepers: (i) international offices of the Tourism Authority of Thailand; (ii) sales representative offices of Thai health-care providers in foreign markets; and (iii) travel agencies specialising in medical tourism. These gatekeepers sent e-mails to current and prospective customers included in their databases inviting them to complete the questionnaire online. These messages contained an information sheet (Appendix 1) as well as a message of support for the research from the various gatekeepers.

In total, 336 completed questionnaires were collected; of these, 13 incomplete cases in which respondents had not answered several parts of the questionnaire were excluded from the analysis. Therefore, from a total of approximately 2,300 emails sent to prospective tourists inviting them to complete the online survey, 323 valid completed questionnaires were returned, which resulted in a response rate of 14.04%. The 14.04 % response rate is considered acceptable as no incentive was offered to respondents. Normally, consumer survey with no incentive offered to respondents yields lower than 10% response rate while the response rate with consumer survey with incentives and follow ups can be as high as 26.54% (People Pulse, 2010). As for the written questionnaire, approximately 80 copies of written questionnaire were distributed. However, there has been no returned copy.

The valid questionnaires were then screened to ascertain whether they met the predetermined parameters of: (i) interest in medical tourism; and (ii) proficiency in English. Of the 323 questionnaires, 13 respondents had chosen option E (I would not consider travelling abroad for medical reasons') of question 1 (For what reasons are you interested in medical tourism?'). These 13 were also discarded, which led to a final total of 310 valid cases for inclusion in the analysis (representing a usable response rate of 13.5%).

4.3 Profiles of respondents

The demographic characteristics of respondents were assessed in terms of gender, age, marital status, country of residence, income, education, employment, and purposes of medical visit. Table 4.2 presents a summary of the demographic characteristics of the final sample respondents.

Table 4.2: Demographic profile of respondents

Demographic characteristic	Number of respondents	Proportion of sample
Male	145	46.8%
Female	165	53.2%
18–30 years old	62	20.0%
31–40 years old	116	37.4%
41–50 years old	80	25.8%
51–60 years old	38	12.3%
61–70 years old	13	4.2%
71 years and older	1	0.3%
Single	134	43.2%
Married	127	41.0%
Cohabiting	17	5.5%
Divorced	17	5.5%
Widowed	10	3.2%
Separated	5	1.6%
Australia (country of origin)	53	17.1%
United Arab Emirates (country of origin)	52	16.8%
United States of America (country of origin)	32	10.3%
United Kingdom (country of origin)	31	10.0%
Hong Kong (country of origin)	28	9.0%
Singapore (country of origin)	18	5.8%
Other	96	31.1%
USD\$10,000 or less (annual income)	28	9.0%
USD\$10,001–30,000 (annual income)	62	20.0%
USD\$30,001-60,000 (annual income)	129	41.6%
USD\$60,001-100,000 (annual income)	53	17.1%
USD\$100,001-200,000 (annual income)	25	8.1%
More than USD\$200,001 (annual income)	13	4.2%
Educated up to and including high school	21	6.8%
College diploma	46	14.8%
Bachelor’s degree	125	40.3%
Master’s degree	100	32.3%
Doctorate	18	5.8%
Corporate firm employee	124	40.0%
Business owner	65	21.0%
Freelance professional	29	9.4%

Employed with temporary contract	28	9.0%
Unemployed	11	3.5%
Other	53	17.1%

It is apparent that there were slightly more female respondents (53.2%) than male respondents.

The largest group of respondents were 31–40 years of age (37.4%), followed by those who were aged 41–50 years (25.8%) and those aged 18–30 years (20.00%). The relative under-representation of older respondents is probably explained by the online nature of the survey.

In terms of marital status, single respondents represented the largest group (43.2%), closely followed by married respondents (41%).

In terms of country of origin, 17% of respondents were from Australia, followed by the United Arab Emirates (16.8%), United States of America (10.3%), United Kingdom (10.0%), Hong Kong (9%), and Singapore (5.8%). The remainder of the sample (31.1%) chose the option ‘_other’ (indicating one or more other countries).

Most respondents (approximately 60% in all) were in either the upper-middle socio-economic stratum (with 41.6% of respondents earning USD\$30,001–60,000 annually) or the lower-middle socio-economic stratum (with 20% earning USD\$10,001–30,000 annually). Another 17.1% of respondents had an annual income of USD\$60,001–100,000.

Most respondents were well educated, with 40.3% having obtained a bachelor’s degree and 32.3% having a master’s degree. In terms of employment status, 40% of respondents were employed full-time by corporate firms, whereas 21% owned businesses.

Table 4.3 summarises the respondents’ objectives in travelling abroad for medical reasons. Respondents were asked to choose one or more alternatives that applied to their situation. Because they were allowed to state more than one objective, the total number of answers is thus greater than the number of respondents (377 answers; 122.8% of valid cases).

Table 4.3: Objective(s) of travelling abroad for medical reasons

Objective of travelling abroad	Number	Proportion of responses	Proportion of cases
To cure an illness	106	28.1%	34.5%
For cosmetic surgery	96	25.5%	31.3%
For medical check up	94	24.9%	30.6%
To improve health	81	21.5%	26.4%
Total	377	100.0%	122.8%

It is apparent from Table 4.3 that the largest group of respondents were interested in curing their illnesses (28.1% of responses), followed by cosmetic surgery (25.5%), and medical check-ups (24.9%). The least-reported alternative was health improvement (21.5%).

4.4 Descriptive analysis of variables

Table 4.4 presents a descriptive analysis (and normality of distribution) of all the composite variables used in the study. Table 4.5 summarises the same characteristics of the non-composite variables.

Table 4.4: Summary of descriptive analysis of composite variables

Variable	Mean	Standard deviation	Number of constituent items	Z-score	Cronbach's alpha	
Health locus of control	Internal health locus of control	5.91910	0.68332	8	1.297	0.894
	Chance health locus of control	3.2045	1.08654	3	3.913*	0.792
	People health locus of control	3.8642	0.85145	6	3.0797	0.858
Attitude towards health-care system in home country	Cost	3.0144	1.12246	5	5.203*	0.810
	Procedures	3.7607	1.21754	4	1.014	0.859
Information sources	Induced	4.8655	0.88632	5	3.1086	0.832
	Autonomous	5.1482	0.75625	4	0.1014	0.877
	Organic	5.5975	0.81914	3	3.2463	0.770

Medical tourism destination attributes	Quality of care	5.6128	0.77149	7	3.0724	0.836
	Saving potential	5.5395	0.90965	3	2.6811	0.726
	Safety issues	5.1390	0.87162	9	0.224	0.896
	Tourism opportunities	4.0603	1.15994	5	2.0144	0.834
	Hygiene issues	5.5372	0.79142	4	3.1449	0.703
	Accessibility	4.9447	1.08613	2	2.471	0.715

* Z-score is higher than 3.29; Transformation is applied

Table 4.5: Descriptive analysis of non-composite variables

Variable		Mean	Standard deviation	Z-score
Motivation to engage in medical tourism		5.5065	0.85424	0.3116
Familiarity	with procedures involved with desired medical care	4.05001	1.38531	3.1956
	with Thailand as a medical tourism destination	4.5845	1.75046	4.1159
Perceived risks	Functional risk	5.8304	0.9641	4.43478
	Financial risk	5.3895	1.01962	2.2174
	Health risk	5.0098	1.27863	4.0000
	Physical risk	4.8344	1.37541	3.963
	Satisfaction risk	5.6578	1.12502	3.9347
	Psychological risk	3.5537	1.58253	0.9420
	Political risk	4.0358	1.47756	1.5072
	Social risk	3.2345	1.49120	1.1449
	Time risk	4.3420	1.28608	1.9927
Image of hygiene level of potential destinations	Thailand	5.0675	0.92360	3.1304
	Malaysia	4.9865	0.98852	3.3188
	Singapore	6.3265	0.73859	7.3043
	India	3.0395	1.36949	2.1811
Image of safety and security of potential destinations	Thailand	4.7296	1.21288	4.5507
	Malaysia	4.8721	1.16865	4.1159
	Singapore	6.2316	0.83317	7.0144
	India	3.3684	1.35429	2.2101
Intention to visit	Thailand	5.1246	1.46950	5.86231
	Malaysia	3.9608	1.91959	2.1014
	Singapore	4.7410	1.46649	4.9057
	India	2.1813	1.56865	5.4275

4.4.1 Health locus of control

As noted above, the variable of health locus of control was measured on three sub-scales: (i) internal health locus of control (IHLC); (ii) chance health locus of control (CHLC); and (iii) people health locus of control (PHLC).

4.4.1.1 Internal health locus of control

IHLC was measured by asking respondents to indicate their degree of agreement/disagreement with eight items on a seven-point Likert-type scale.

The scores for these eight items were checked for validity using principal component analysis, inter-item correlations, and item-to-total correlations (as shown in Appendix 2). One factor was extracted with an eigenvalue greater than 1.00 (KMO = 0.896), and Bartlett's test for sphericity was significant ($\chi^2 = 1255.143$; $df = 28$; $p < 0.05$) (Manning and Munro, 2007). All items were related to each other and the composite variable at satisfactory levels (inter-item correlation = 0.30; item-to-total correlation = 0.50) (Manning and Munro, 2007). The composite variable was thus judged to be valid. The variable was also reliable, as indicated by Cronbach's alpha value of 0.894, which was greater than the critical value of 0.70 (Manning and Munro, 2007).

The mean score for the composite variable was 5.91910 on a scale of 1 to 7 (standard deviation 0.68332). It can therefore be argued that respondents had a high level of IHLC.

The score was checked for normality of distribution by using z-score (division of skew value by skew error value) (Manning and Munro, 2007). The z-score of this composite variable was 1.927, which was within the critical value of 3.29 for a sample size greater than 300. The scores of the IHLC variable were therefore normally distributed.

4.4.1.2 Chance health locus of control

CHLC was measured by asking respondents to indicate their degree of agreement/disagreement with four items using a seven-point Likert-type scale.

The variable was checked for validity using principal component analysis, inter-item correlations, and item-to-total correlations. One factor was extracted with an eigenvalue

greater than 1.00 (KMO = 0.684), and Bartlett's test for sphericity was significant ($\chi^2 = 292.081$; $df = 3$; $p < 0.05$) (Manning and Munro, 2007, Fox, 1997). The constituent items correlated with the composite variable and with each other at satisfactory levels (item-to-total correlation = 0.50; inter-item correlation = 0.30) (Manning and Munro, 2007).

The variable was also checked for reliability. It was found that excluding one item ('I am destined to have the health problems I currently suffer from') from the composite variable would increase its reliability (Cronbach's alpha) from 0.739 to 0.792. The composite variable CHLC was therefore computed by averaging the scores of the three remaining items. The variable was thus both reliable and valid.

The mean score for the composite variable was 3.2045 on a scale of 1 to 7 (standard deviation 1.08654), with Cronbach's alpha value 0.792. This finding suggests that respondents had quite a low level of CHLC.

The z-score, which was used as the indicator of normal distribution of variables of interval measurement, was 3.913. This was greater than the acceptable value of 3.29 (Manning and Munro, 2007). Transformation of the score was thus required to ensure that the variable qualified for parametric statistical techniques that require scores to be normally distributed. Square root transformation was applied to the composite variable, and the z-score of the transformed variable was below the critical value of 3.29 (mean = 1.7647; standard deviation = 0.30085; z-score = 0.1231) (Tabachnick and Fidell, 1996, Bryman and Duncan, 2004). The square root transformation of the composite variable was used for subsequent analysis.

4.4.1.3 People health locus of control

PHLC was measured by asking respondents to state their degree of agreement/disagreement with six statements on a seven-point Likert-type scale.

The variable was checked for validity by inter-item correlation, item-to-total correlation, and principal component analysis to ensure that the six constituent items were

homogeneous (Manning and Munro, 2007). One component was extracted with an eigenvalue greater than 1.00 (KMO = 0.854), and Bartlett's test for sphericity was significant ($\chi^2 = 759.507$; $df = 15$; $p < 0.05$). Constituent items correlated with the composite variable and with each other at satisfactory levels (inter-item correlation = 0.30 and item-to-total = 0.50) (Manning and Munro, 2007).

The composite variable was also very reliable, as indicated by a Cronbach's alpha value of 0.858 (Manning and Munro, 2007, Bryman and Duncan, 2004). Deleting any of the constituent items did not make the composite more reliable.

The composite variable PHLC was thus computed by averaging the scores of the six constituent items. The mean score of the composite variable was 3.8642 on a scale of 1 to 7 (standard deviation 0.8515). It can be thus argued that respondents did not really believe that other people can influence their health.

The score of the composite variable was normally distributed, as indicated by a z-score of 3.07, which was less than the critical value of 3.29 for a sample larger than 300 (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.2 Attitude towards health-care system in home country

Attitudes towards health-care systems in the home country were assessed in terms of: (i) attitudes towards cost; and (ii) attitudes towards waiting time and procedures.

4.4.2.1 Attitude towards cost of medical care

Respondents were asked to indicate (on a seven-point Likert-type scale) their degree of agreement/disagreement with five statements about the affordability of the costs of medical care in their home country. The scores of the five items were recoded so that low scores signified negative attitudes towards the affordability of the cost of medical care in the respondents' home country whereas high scores indicated positive attitudes.

The composite variable was checked for validity by item-to-total correlation, inter-item correlation, item-to-total correlation, and principal component analysis. One factor with an eigenvalue greater than 1.00 was extracted (KMO = 0.7902), and Bartlett's test for sphericity was significant ($\chi^2 = 504.320$; $df = 10$, $p=0.00$). Constituent items were correlated with the composite variable and with each other at satisfactory levels (item-to-total correlation = 0.50, inter-item correlation = 0.30) (Manning and Munro, 2007, Tabachnick and Fidell, 1996). The composite variable was highly reliable, as indicated by a Cronbach's alpha value of 0.810 (Manning and Munro, 2007).

The composite variable was computed by averaging the scores of the five constituent items. The mean score of the composite variable was 3.0144 on a scale of 1 to 7 (standard deviation 1.2254). Because low scores indicated an adverse opinion, this finding suggests that respondents tended to believe that the cost of medical care in their home country were *not* affordable.

In terms of normality of score distribution, the z-score of the composite variable was 5.203, which was greater than the critical value of 3.29 for a sample size larger than 300. Log transformation was therefore applied to the composite variable (Tabachnick and Fidell, 1996). The mean score of the log-transformed composite variable was 1.0322 (standard deviation 0.3832) and the z-score was 2.4928, which was less than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007, Tabachnick and Fidell, 1996). The log-transformed variable was therefore used for subsequent analyses that required variables to be normally distributed.

4.4.2.2 Attitudes towards waiting time and procedures

Respondents were asked to indicate (on a seven-point Likert-type scale) their degree of agreement/disagreement with four statements about waiting times and administrative procedures in the health-care system in their home country. The scores of the four items were recoded so that low scores signified negative attitudes.

The composite variable was checked for validity using item-to-total correlation, inter-item correlation, and principal component analysis. One factor with an eigenvalue greater than 1.00 was extracted (KMO = 0.765), and Bartlett's test for sphericity was significant (χ^2

= 643.032; $df = 6$; $p=0.00$). Constituent items correlated with the composite variable and with each other at satisfactory levels (item-to-total correlation = 0.50; inter-item correlation = 0.30) (Manning and Munro, 2007).

The composite variable was also highly reliable, as indicated by a Cronbach's alpha value of 0.859 (Manning and Munro, 2007). Although the deletion of one item would have increased Cronbach's alpha from 0.859 to 0.860, the improvement would have been trivial (Bryman and Duncan, 2004). All four items were therefore retained in the composite variable.

The mean score of the composite variable was 3.7607 on a scale of 1 to 7 (standard deviation 1.2175). This suggests that respondents tended to believe that they had to wait for a long time and/or pass through several steps to receive the desired medical treatment.

Scores of the composite variable were normally distributed, as indicated by the z-score of 1.014, which was less than the critical value of 3.29 for a sample size larger than 300. This composite variable thus satisfied the assumption of normality (Manning and Munro, 2007, Bryman and Duncan, 2004, Neter et al., 1998).

4.4.3 Availability of desired medical treatment in home country

Respondents were asked to state their belief about the availability of desired medical treatment in their home country by selecting one of three alternatives (_yes‘, _no‘, or _don't know‘). It was found that 72.3% of respondents believed that their desired medical treatment was available in their home country, 16.1% believed that it was not available, and 11.6% did not know.

Respondents were also asked whether their desired medical treatment was covered by their health-insurance plan. They were asked to select one of three alternatives (_covered‘, _partially covered‘, or _notcovered‘). It was found that 51.3% of respondents stated that their desired medical treatment was *not* covered by their health plan, 34.2% stated that it was partially covered, and 14.5% stated that it was covered.

4.4.4 Motivation to engage in medical tourism

Respondents were asked to indicate their level of motivation (on a seven-point Likert-type scale) regarding their involvement in medical tourism. The mean score for this variable was 5.5065 (standard deviation 0.8542), which indicates that respondents were quite strongly motivated to travel abroad for medical reasons.

Scores of this variable were normally distributed, as indicated by the z-score of 0.3166, which was less than the critical value of 3.29 for a sample size larger than 300) (Manning and Munro, 2007).

4.4.5 Medical tourism destination attributes

Six attributes of medical tourism destinations were measured: (i) quality of care; (ii) saving potential; (iii) safety and security issues; (iv) overall hygiene levels; (v) tourism opportunities; and (vi) accessibility.

4.4.5.1 Quality of care

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with regard to 10 items about quality of medical treatment.

The composite variable was checked for validity using item-to-total correlation, inter-item correlation, and principal component analysis. Three items failed to correlate with each other at a satisfactory level (greater than 0.30 for a composite variable) (Manning and Munro, 2007). These items were: (i) *_my ideal medical tourism destination has many international standard hospitals with certified doctors and surgeons'*; (ii) *_my ideal medical tourism destination has many hospitals that are equipped with the world's most sophisticated medical equipment'*; and (iii) *_my ideal medical tourism destination has hospitals that coordinate with health-care providers in my home country so that I can be assured about quality of the care'*. These three items were excluded from further consideration in this composite variable.

The remaining seven items were checked again for validity using inter-item correlation, item-to-total correlation, and principal component analysis. The composite variable and the remaining seven items correlated with each other at satisfactorily levels (greater than 0.50)

(Manning and Munro, 2007). Inter-item correlations of the seven items were also satisfactory (greater than 0.30) (Manning and Munro, 2007, Tabachnick and Fidell, 1996). Principal component analysis led to one factor being extracted with an eigenvalue greater than 1.00 (KMO = 0.869), and Bartlett's test for sphericity was significant ($\chi^2 = 680.473$; $df = 21$, $p=0.00$). This factor accounted for 50.779% of variance of the data set.

The composite variable was also checked for reliability using Cronbach's alpha. The result was 0.870, which indicates high reliability (Manning and Munro, 2007, Maholtra, 1999). The composite variable was thus both valid and reliable.

By averaging the seven items, the mean score for the composite variable was 5.6128 on a scale of 1 to 7 (standard deviation 0.77149), which indicates that respondents considered the quality of medical care in foreign countries to be quite important.

The z-score of 3.0724 indicated that the scores of this composite variable were normally distributed (Manning and Munro, 2007).

4.4.5.2 Saving potential

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with four items related to saving potential of travelling abroad for medical reasons.

The composite variable was checked for validity using inter-item correlation, item-to-total correlation, and principal component analysis. Although item-to-total correlations of the composite variable and its four constituent items were greater than the 0.50 critical value, one particular item ('_my ideal medical tourism destination has a much lower cost of living in comparison to my home country') did not correlate with two items ('_my ideal medical tourism destination provides the same medical treatment at a much lower cost than my home country' and '_my ideal medical tourism destination provides my desired medical treatment at a lower cost compared to other destinations') at a satisfactory level (correlation <0.30). In addition, reliability check using Cronbach's alpha indicated that the alpha value would

increase from 0.701 to 0.726 without this particular item. The item was therefore excluded from the composite variable computation.

The new composite variable (with the aberrant item excluded) was checked for validity using inter-item correlation, item-to-total correlation, and principal component analysis. The constituent items correlated with each other and with the composite variable at satisfactory levels (correlation >0.50 for item-to-total correlation, and >0.30 for inter-item correlations) (Manning and Munro, 2007, Hair et al., 1998). Principal component analysis extracted one factor with an eigenvalue greater than 1.00 (KMO = 0.671), and Bartlett's test for sphericity was significant ($\chi^2 = 193.03$; $df = 3$; $p=0.00$).

The composite variable was also checked for reliability using Cronbach's alpha. The result was 0.726, which indicates that the composite variable was reliable (Manning and Munro, 2007, Hair et al., 1998).

The mean score of the composite variable was computed by averaging the mean scores of the three constituent items. The mean score was 5.5395 on a scale of 1 to 7 (standard deviation 0.90965), which indicates that respondents believed that the saving potential associated with medical tourism was quite important in choosing a medical tourism destination.

The z-score of the composite variable was 2.6811, which was less than the critical value of 3.29 for a sample size larger than 300. This indicated that the composite variable was normally distributed (Tabachnick and Fidell, 1996).

4.4.5.3 Safety and security issues

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with 10 statements regarding safety and security issues at a medical tourism destination.

The composite variable was checked for validity using item-to-total and inter-item correlations, as well as principal component analysis. Although item-to-total correlations between the ten constituent items and the composite variable were satisfactorily (correlation $>$

0.50), one particular item (_my ideal medical tourism destination is safe to travel to alone') did not correlate with several other constituent items (_my ideal medical tourism destination has a low crime rate'; _my ideal medical tourism destination is safe to walk on the street alone'; _my ideal medical tourism destination has few natural disasters'; _my ideal medical tourism destination is not targeted for attack by terrorists'; and _my ideal medical tourism destination has a safe transportation system') at satisfactory levels (correlation <0.30). In addition, reliability testing by Cronbach's alpha indicated that deleting this particular item would improve the reliability level by increasing Cronbach's alpha from 0.891 to 0.896. The aberrant item was therefore excluded from the composite variable calculation.

The composite variable and its remaining nine constituent items correlated satisfactorily (correlations >0.50), and the nine constituent items were also correlated at satisfactory levels (correlations >0.30). Principal component analysis extracted one factor with an eigenvalue greater than 1.00 (KMO = 0.916), and Bartlett's test for sphericity was significant ($\chi^2 = 1296.252$; $df = 36$; $p=0.00$). This factor accounted for 55% of the variance of the data set.

Cronbach's alpha for the composite variable was 0.896, which indicated a high level of reliability (Manning and Munro, 2007, Hair et al., 1998). The composite variable was thus shown to be valid and highly reliable.

The mean score of the composite variable was 5.1390 on a scale of 1 to 7 (standard deviation 0.87126), which indicates that respondents considered safety and security issues to be quite important when making a choice of medical tourism destination.

The z-score of the composite variable (0.224) was less than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.5.4 Tourism opportunity

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with five items relevant to tourism opportunities offered by a medical tourism destination.

The composite variable was checked for reliability using item-to-total and inter-item correlations. The composite variable was correlated with its five constituent items at satisfactory levels (correlations >0.50) (Manning and Munro, 2007, Hair et al., 1998). The constituent items also correlated with each other satisfactorily (correlations >0.30) (Manning and Munro, 2007). Principal component analysis extracted one factor with an eigenvalue greater than one (KMO = 0.823), and Bartlett's test for sphericity was significant ($\chi^2 = 575.710$; $df = 10$; $p=0.00$). This factor accounted for 60.483% of variance of the data set.

Cronbach's alpha indicated that the composite variable was highly reliable ($\alpha = 0.834$) (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

The composite variable was computed by averaging the scores of the five constituent items. The mean score for the composite variable was 4.0603 on a scale of 1 to 7 (standard deviation 1.15994), which suggests that respondents considered tourism opportunities offered by potential destinations to be neither important nor unimportant in selecting a medical tourism destination.

The z-score of 2.0144 indicated that the scores of the composite variable were normally distributed (Tabachnick and Fidell, 1996, Manning and Munro, 2007).

4.4.5.5 Hygiene issues

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with four items related to the hygiene of a medical tourism destination.

The composite variable and its four constituent items correlated with each other at satisfactory levels (correlations >0.50) (Hair et al., 1998, Manning and Munro, 2007). All constituent items correlated with each other at satisfactory levels (correlations >0.30) (Manning and Munro, 2007). Principal component analysis extracted one factor with an eigenvalue greater than 1.00 (KMO = 0.728), and Bartlett's test for sphericity was significant ($\chi^2 = 210.57$; $df = 6$; $p=0.00$). This factor accounted for 52.994% of variance of the data set.

Cronbach's alpha value was 0.703, which indicated that the composite variable was reliable (Tabachnick and Fidell, 1996, Levin and Rubin, 1991). The composite variable was thus both valid and reliable.

The composite variable was computed by averaging the scores of the four constituent items. The mean score of the composite variable was 5.5732 on a scale of 1 to 7 (standard deviation 0.79142), which suggests that hygiene issues were quite important to respondents in choosing a medical tourism destination.

The z-score of 3.1449 suggests that the scores of the composite variable were normally distributed (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.5.6 Accessibility of destination

Respondents were asked to indicate their degree of agreement/disagreement (on a seven-point Likert-type scale) with two items related to accessibility of a medical tourism destination.

The composite variable and the two constituent items correlated with each other at satisfactory levels (correlations >0.50) (Manning and Munro, 2007). The two constituent items also correlated satisfactorily with each other (correlation >0.30) (Manning and Munro, 2007). Principal component analysis extracted one factor with an eigenvalue greater than 1.00, which accounted for 77.871% of variance of the data set. Because there were only two items taken into consideration, the Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy, which was 0.50, was less than the critical value of 0.60 (Manning and Munro, 2007, Levin and Rubin, 1991). However, Bartlett's test for sphericity was significant ($\chi^2 = 114.425$; $df = 1$; $p=0.00$).

Cronbach's alpha value for the composite variable was 0.715, which indicates that it is reliable. The composite variable was thus shown to be both valid and reliable.

The composite variable was computed by averaging the scores of the two constituent items. The mean score of the composite variable was 4.9446 on a scale of 1 to 7 (standard deviation 1.08616), which suggests that respondents considered accessibility to be neither important nor unimportant in choosing a medical tourism destination.

The z-score of the composite variable was 2.4637, which indicates that the scores of the composite variable were normally distributed (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.6 Level of product familiarity

Familiarity with a medical tourism destination was assessed in terms of: (i) familiarity with the procedures associated with the desired medical treatment; and (ii) familiarity with alternative medical tourism destinations.

4.4.6.1 Familiarity with procedures

Respondents were asked to indicate (on a seven-point Likert-type scale) their degree of familiarity with the procedures associated with their desired medical treatment. The mean score of this variable was 4.0500 (standard deviation 1.38531), which suggests that respondents were neither familiar nor unfamiliar with the procedures associated with their desired medical treatment.

The scores of this variable were normally distributed, as indicated by the z-score of 3.1956, which was less than the critical value of 3.29 for a sample size larger than 300 (Tabachnick and Fidell, 1996).

4.4.6.2 Familiarity with Thailand as a medical tourism destination

Respondents were asked to indicate (on a seven-point Likert-type scale) their degree of familiarity with Thailand as a medical tourism destination. The mean score of the variable was 4.5845 (standard deviation 1.7505), which suggests that respondents were neither familiar nor unfamiliar with Thailand as a medical tourism destination.

Although there was no outlier detected, scores for this variable were not normally distributed, as indicated by the z-score of 4.1159, which was greater than the critical value of 3.29 for a sample larger than 300 (Tabachnick and Fidell, 1996). This variable was therefore

treated with non-parametric statistical techniques in subsequent analyses (Aron and Aron, 1997, Neter et al., 1998, Lind and Mason, 1997).

4.4.7 Search behaviour

Search behaviour was measured by a proxy variable by asking respondents to indicate whether they felt confident in choosing a medical tourism destination, given their current level of knowledge. This was assessed by requesting an answer to one question from three alternatives ('yes', 'no', and 'not sure'). The rationale for the proxy variable was that less-confident respondents can be assumed to engage in a search for more information.

Approximately one-third of respondents (35%) stated that they were confident in choosing a medical tourism destination, and about a quarter (24%) were not confident. The remainder (41%) were unsure whether they were confident about choosing a medical tourism destination.

Because it can be assumed that individuals who lack confidence about making a choice decision are more likely to engage in external information search, most of the respondents (65%) in the present study (that is, the total of those who were not confident and those who were unsure) are likely to undertake an active search for information about medical procedures and prospective destinations from external information sources.

4.4.8 Information sources

Three external sources were assessed: (i) induced image agents; (ii) autonomous image agents; and (iii) organic image agents (Beerli and Martin, 2004).

4.4.8.1 Induced image agents

Respondents were asked to indicate (on a seven-point Likert-type scale) the importance that they attached to information from six induced image agents.

The composite variable was checked for validity and reliability. Although item-to-total correlations of the composite variable were satisfactory (correlations >0.50), inter-item

correlations between one particular item (information from non-commercial websites) failed to correlate with two other items (advertising campaigns developed by destinations about medical tourism; and personal selling by staff of travel agencies specialising in medical tourism) at satisfactory levels (correlations <0.30) (Manning and Munro, 2007, Hair et al., 1998). In addition, reliability analysis showed that deleting this particular item would increase Cronbach's alpha from 0.826 to 0.832. This item was therefore deleted from the composite variable.

The new composite variable was computed by averaging the scores of the remaining five constituent items. Both item-to-total correlation (>0.50) and inter-item correlation (>0.30) showed satisfactory results. Principal component analysis extracted one factor with an eigenvalue greater than 1.00 (KMO = 0.779), and Bartlett's test for sphericity was significant ($\chi^2 = 639.322$; $df = 10$; $p=0.00$). This factor accounted for 60.387% of variance of the data set.

Cronbach's alpha (0.832) indicated that the composite variable was highly reliable (Tabachnick and Fidell, 1996, Manning and Munro, 2007). The composite variable was thus shown to be both valid and reliable.

The mean score of composite variable was 4.8655 on a scale of 1 to 7 (standard deviation 0.88632), which suggests that respondents considered information from induced image agents to be neither important nor unimportant in choosing a medical tourism destination.

The z-score of 3.1086 indicates that the scores of this composite variable were normally distributed (Tabachnick and Fidell, 1996, Manning and Munro, 2007).

4.4.8.2 Autonomous image agents

Respondents were asked to indicate (on a seven-point Likert-type scale) the importance that they attached to information from four autonomous image agents.

Item-to-total correlations of the composite variable and its four constituent items were satisfactory (correlations >0.50) (Manning and Munro, 2007, Hair et al., 1998). Inter-item correlations also showed satisfactory results (correlations >0.30) (Manning and Munro, 2007, Hair et al., 1998). Principal component analysis extracted one factor with an eigenvalue greater than one (KMO = 0.807), and Bartlett's test for sphericity was significant ($\chi^2 = 679.796$; $df = 6$; $p=0.00$). This factor accounted for 73.227% of variance of the data set.

This composite variable was also highly reliable, as indicated by Cronbach's alpha value of 0.877 (Manning and Munro, 2007, Tabachnick and Fidell, 1996). This composite variable was thus shown to be both valid and reliable.

The composite variable was calculated by averaging the scores of the four constituent items. The mean score of the composite variable was 5.1482 on a scale of 1 to 7 (standard deviation 0.7563), which suggests that respondents considered information received from autonomous image agents as being quite important in choosing a medical tourism destination.

Scores of this composite variable were normally distributed, as indicated by the z-score of 0.1014.

4.4.8.3 Organic image agents

Respondents were asked to indicate (on a seven-point Likert-type scale) the importance that they attached to information from three organic image agents.

The composite variable and its three constituent items correlated with each other at satisfactory levels (correlations >0.50) (Manning and Munro, 2007, Hair et al., 1998), and the constituent items also correlated with each other satisfactorily (correlations >0.30) (Manning and Munro, 2007, Hair et al., 1998). Principal component analysis extracted one factor with an eigenvalue greater than one (KMO = 0.666), and Bartlett's test for sphericity was significant ($\chi^2 = 236.621$; $df = 3$; $p=0.00$). This factor accounted for 68.695% of variance of the data set.

The composite variable was reliable, as indicated by Cronbach's alpha value of 0.770. The composite variable was thus both valid and reliable.

The composite variable was computed by averaging the scores of the three constituent items. The mean score of the variable was 5.5975 on a scale of 1 to 7 (standard deviation 0.8527), which suggests that the respondents considered information from organic image agents to be quite important in choosing a medical tourism destination.

The scores of this composite variable were normally distributed, as indicated by a z-score of 3.2464 (Tabachnick and Fidell, 1996).

4.4.9 Perceived risk

Nine aspects of perceived risk were measured separately by asking respondents to indicate the importance that they attached to each on a seven-point Likert-type scale. One item was used to measure each element of perceived risk.

4.4.9.1 Functional risk

The mean score for the variable functional risk was 5.8304 (standard deviation 0.9641), which suggests that respondents considered functional risk to be quite important in choosing a medical tourism destination.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 4.4348, which was greater than the critical value of 3.29 for a sample size larger than 300. This was probably due to so-called ceiling effects (Lind and Mason, 1997). This variable was therefore treated with non-parametric methods in subsequent analyses (Neter et al., 1998, Sandy, 1990, Levin and Rubin, 1991).

4.4.9.2 Financial risk

The mean score for the variable financial risk was 5.3896 (standard deviation 1.0196), which suggests that respondents considered financial risk to quite important in choosing a medical tourism destination.

The scores of this variable were normally distributed, as indicated by the z-score of 2.2174 (Tabachnick and Fidell, 1996).

4.4.9.3 Health risk

The mean score for the variable `_health risk` was 5.0098 (standard deviation 1.1250), which suggests that respondents considered health risk to be quite important in choosing a medical tourism destination.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 4.00. This variable was therefore treated with non-parametric statistical methods in subsequent analyses (Vanichbancha, 2006, Lind and Mason, 1997, Rose and Sullivan, 1993).

4.4.9.4 Physical risk

The mean score for the variable `_physical risk` was 4.8344 (standard deviation 1.37541), which suggests that respondents considered physical risk to be neither important nor unimportant in choosing a medical tourism destination.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 3.963, which was greater than the critical value of 3.29 for a sample size larger than 300. This variable was therefore treated with non-parametric statistical methods in subsequent analyses (Vanichbancha, 2006, Levin and Rubin, 1991, Aron and Aron, 1997).

4.4.9.5 Satisfaction risk

The mean score for the variable `_satisfaction risk` was 5.6787 (standard deviation 1.1250), which suggests that respondents considered satisfaction risk to be quite important in choosing a medical tourism destination.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 3.9347 (Tabachnick and Fidell, 1996). This variable was therefore treated with non-parametric statistical methods in subsequent analyses (Vanichbancha, 2006, Levin and Rubin, 1991, Neter et al., 1998, Aron and Aron, 1997, Fox, 1997).

4.4.9.6 Psychological risk

The mean score for the variable `_psychological risk` was 3.5537 (standard deviation 1.5825), which suggests that respondents considered psychological risk to be quite unimportant in choosing a medical tourism destination.

As indicated by the z-score of 0.9420, the scores of this variable were normally distributed (Tabachnick and Fidell, 1996).

4.4.9.7 Political risk

The mean score for the variable `_political risk` was 4.03578 (standard deviation 1.47756), which suggests that respondents considered political risk to be neither important nor unimportant in choosing a medical tourism destination.

As indicated by the z-score of 1.5072, the scores of this variable were normally distributed (Tabachnick and Fidell, 1996).

4.4.9.8 Social risk

The mean score for the variable `_social risk` was 3.2345 (standard deviation 1.4912), which suggests that respondents considered social risk to be quite unimportant in choosing a medical tourism destination.

Scores for this variable were normally distributed, as indicated by the z-score of 1.1449. (Tabachnick and Fidell, 1996).

4.4.9.9 Time risk

The mean score for the variable ‘_time risk’ was 4.3420 (standard deviation 1.2861), which suggests that respondents considered time risk to be neither important nor unimportant in choosing a medical tourism destination.

The scores for this variable were normally distributed, as indicated by the z-score of 1.9927 (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.10 Consideration set

An open-ended question invited respondents to name as many medical tourism destinations of which they were currently aware. Table 4.6 shows the destinations that were named by respondents on first, second, third, and fourth recalls.

Table 4.6: Medical tourism destinations of which respondents were aware

Destinations	First recall	Second recall	Third recall	Fourth recall	Total recall
Thailand	138	51	9	2	200
Singapore	43	23	15	2	83
Malaysia	22	23	4	0	49
USA and Canada	21	8	5	1	35
Eastern Europe	18	6	4	0	28
India	17	16	4	2	39
Korea	10	7	1	0	18
Europe and UK	7	15	3	3	28
Latin America	6	8	1	0	15
Others	28	28	6	0	62
Total	310	185	52	10	557

Table 4.6 shows that Thailand was the best-known medical tourism destination (200 recalls), followed by Singapore (83 recalls), Malaysia (49 recalls), India (39 recalls), and the USA and Canada (35 recalls). However, according to Woodside and Lysonski (1989), the first recall on an unaided basis tends to exert a strong influence on intention to visit. Therefore, Thailand, which had the largest number of first recalls (138), should be more likely to be chosen as a final medical tourism destination.

However, it should be noted that respondents included in this survey were approached by particular gatekeepers, which included the Tourism Authority of Thailand and certain Thai health-care providers. It is therefore likely that respondents were already aware of Thailand as a medical tourism destination.

4.4.11 Images of hygiene level of potential destinations

Respondents were asked to indicate their perception of the hygiene level of Thailand and its competing medical tourism destinations (Singapore, Malaysia, and India) on a seven-point Likert-type scale.

4.4.11.1 Image of hygiene level of Thailand

The mean score for this variable was 5.0675 (standard deviation 0.9236), which suggests that respondents perceived Thailand to be quite hygienic.

The scores for this variable were normally distributed, as indicated by the z-score of 3.1304, which was less than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007, Tabachnick and Fidell, 1996).

4.4.11.2 Image of hygiene level of Malaysia

The mean score for this variable was 4.9865 (standard deviation 0.98852), which suggests that respondents perceived Malaysia to be neither hygienic nor unhygienic.

Although no outlier was detected, the scores for this variable were not normally distributed, as indicated by the z-score of 3.3188, which was greater than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Manning and Munro, 2007, Vanichbancha, 2006).

4.4.11.3 Image of hygiene level of Singapore

The mean score for this variable was 6.3565 (standard deviation 0.7386), which suggests that respondents perceived Singapore to be an hygienic destination.

Although there was no outlier detected, the scores for this variable were not normally distributed, as indicated by the z-score of 7.3043 (Manning and Munro, 2007). This variable

was therefore treated with non-parametric statistical methods in subsequent analyses (Manning and Munro, 2007, Vanichbancha, 2006).

4.4.11.4 Image of hygiene level of India

The mean score for this variable was 3.0395 (standard deviation 1.3695), which suggests that respondents perceived India to be quite unhygienic.

The scores for this variable were normally distributed, as indicated by the z-score of 2.1811 (Manning and Munro, 2007).

4.4.12 Image of safety and security of potential destinations

Respondents were asked to indicate their perceptions of the safety and security of Thailand and its competing medical tourism destinations (Malaysia, Singapore, and India) on a seven-point Likert-type scale.

4.4.12.1 Image of safety and security of Thailand

The mean score for this variable was 4.7296 (standard deviation 1.2129), which suggests that respondents perceived Thailand to be neither safe nor unsafe.

Although no outliers were detected, the scores for this variable were not normally distributed, as indicated by a z-score of 4.5507, which was greater than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007, Lind and Mason, 1997, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Vanichbancha, 2006, Lind and Mason, 1997, Neter et al., 1998, Aron and Aron, 1997).

4.4.12.2 Image of safety and security of Malaysia

The mean score for this variable was 4.8721 (standard deviation 1.1686), which suggests that respondents perceived Malaysia to be neither safe nor unsafe.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 4.1159 (Manning and Munro, 2007, Lind and Mason, 1997, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Vanichbancha, 2006, Neter et al., 1998, Aron and Aron, 1997).

4.4.12.3 Image of safety and security of Singapore

The mean score for this variable was 6.2316 (standard deviation 0.8832), which suggests that respondents perceived Singapore to be a safe and secure destination.

Although no outlier was detected, the scores of this variable were not normally distributed, as indicated by the z-score of 7.0144 (Manning and Munro, 2007, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Manning and Munro, 2007, Vanichbancha, 2006, Aron and Aron, 1997, Neter et al., 1998).

4.4.12.4 Image of safety and security of India

The mean score for this variable was 3.3684 (standard deviation 1.3543), which suggests that respondents perceived India to be quite unsafe.

The scores for this variable were normally distributed, as indicated by the z-score of 2.2101 (Levin and Rubin, 1991).

4.4.13 Intention to visit

Intention to visit Thailand or its three competing medical tourism destinations was measured as a dependent variable by asking respondents to indicate (on a seven-point Likert-type scale) the likelihood of their visiting each of the four destinations.

4.4.13.1 Intention to visit Thailand

The mean score for this variable was 5.1246 (standard deviation 1.3543), which suggests that respondents were somewhat likely to visit Thailand for medical reasons.

Although no outliers were detected, the scores for this variable were not normally distributed, as indicated by the z-score of 5.8623, which was greater than the critical value of 3.29 for a sample size larger than 300 (Manning and Munro, 2007, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent

analyses because it failed to satisfy the assumption of normality (Vanichbancha, 2006, Aron and Aron, 1997, Neter et al., 1998).

4.4.13.2 Intention to visit Malaysia

The mean score for this variable was 3.9608 (standard deviation 1.9196), which suggests that respondents were somewhat unlikely to visit Malaysia for medical reasons.

The scores for this variable were normally distributed, as indicated by the z-score of 2.1014 (Manning and Munro, 2007, Levin and Rubin, 1991).

4.4.13.3 Intention to visit Singapore

The mean score for this variable was 4.7410 (standard deviation 1.4665), which suggests that respondents were neither likely nor unlikely to visit Singapore for medical reasons.

Although no outlier was detected, the scores for this variable were not normally distributed, as indicated by the z-score of 4.9057 (Manning and Munro, 2007, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Manning and Munro, 2007, Vanichbancha, 2006, Aron and Aron, 1997, Neter et al., 1998).

4.4.13.4 Intention to visit India

The mean score for this variable was 2.1813 (standard deviation 1.5687), which suggests that respondents were unlikely to visit India for medical reasons.

Although there was no outlier detected, the scores for this variable were not normally distributed, as indicated by the z-score of 5.4275 (Manning and Munro, 2007, Levin and Rubin, 1991). This variable was therefore treated with non-parametric statistical methods in subsequent analyses because it failed to satisfy the assumption of normality (Manning and Munro, 2007, Vanichbancha, 2006, Neter et al., 1998, Aron and Aron, 1997).

4.5 Hypothesis testing

As stated in Section 2.6, the present study proposed 12 hypotheses to be tested against data collected from the sample. These 12 hypotheses were proposed under three subsidiary research questions as follows.

4.5.1 Subsidiary research question 1.1

The first subsidiary research was:

- What motivates people to engage in medical tourism?

In addressing this research question, Section 2.6 proposed four hypotheses for testing:

- * *Hypothesis H1*: People who engage in medical tourism tend to possess a high level of internal health locus of control.
- * *Hypothesis H2*: People who engage in medical tourism think that medical care in their countries of residence is financially unaffordable.
- * *Hypothesis H3*: People engage in medical tourism because they do not want to wait to receive medical treatment in their countries of residence.
- * *Hypothesis H4*: People engage in medical tourism because the desired medical treatment is not available in their countries of residence.

In testing these hypotheses it was necessary to identify the relationships among five variables, of which one was a dependent variable and four were independent variables. These variables were as follows:

- *independent variables*: (i) health locus of control; (ii) attitude towards cost of medical care in home country; (iii) attitudes towards waiting times and procedures involved with medical care in home country; and (iv) availability of treatment in home country.
- *dependent variable*: motivation to engage in medical tourism.

Each of the independent variables was tested for correlation with the dependent variable. The results are summarised in Table 4.7. The testing of each hypothesis is described in greater detail below.

Table 4.7: Factors that influence level of motivation of individuals to engage in medical tourism

Dependent variable	Independent variables	Test statistic	Result
Motivation to engage in medical tourism	Internal health locus of control	Pearson correlation	Significant positive correlation (Pearson $r=0.343$; $p=0.00$)
	Attitudes towards cost of medical care in home country (log transformed)	Pearson correlation	Significant negative correlation (Pearson $r=-0.267$; $p=0.00$)
	Attitudes towards procedures involved with medical care in home country	Pearson correlation	Significant negative correlation (Pearson $r=-0.203$; $p=0.00$)
	Availability of treatment in home country	ANOVA	Insignificant effect [$F(2, 307)=0.297$; $p=0.744$]

Hypothesis H1

The testing of Hypothesis H1 (which had proposed that people who engage in medical tourism tend to possess a high level of internal health locus of control) involved consideration of two variables: (i) internal health locus of control'; and (ii) motivation to engage in medical tourism'. Because both of these variables were of interval measurement and their scores were normally distributed, the appropriate test for this hypothesis was Pearson's product-moment correlation (Pearson r) (Manning and Munro, 2007, Levin and Rubin, 1991, Neter et al., 1998).

As shown in Table 4.7, a significant positive relationship was found between the two variables (Pearson $r = 0.343$; $p=0.00$). It is apparent that a greater health locus of control was associated with a greater motivation to engage in medical tourism. Hypothesis H1 was thus confirmed.

Hypothesis H2

The testing of Hypothesis H2 (which had proposed that people who engage in medical tourism think that medical care in their countries of residence is financially unaffordable)

involved consideration of two variables: (i) 'attitudes towards cost of medical care in home country'; and (ii) 'motivation to engage in medical tourism'. Although both of these variables were of interval measurement, the z-score of the former indicated that scores of respondents' attitudes towards the cost of medical care in their home country were not normally distributed. Log transformation was therefore conducted and the z-score of the log-transformed score was satisfactory in terms of normal distribution. Pearson r was therefore again chosen as the test statistic (Manning and Munro, 2007, Aron and Aron, 1997, Levin and Rubin, 1991, Neter et al., 1998).

As shown in Table 4.7, a significant negative correlation was found between the two variables (Pearson $r = -0.267$; $p=0.00$). It is apparent that negative attitudes towards costs of medical care in the home country (that is, an opinion that the cost of medical care is too high) was associated with a greater motivation to engage in medical tourism. Hypothesis H2 was thus confirmed.

Hypothesis H3

The testing of Hypothesis H3 (which had proposed that people engage in medical tourism because they do not want to wait to receive medical care in their countries of residence) involved consideration of two variables: (i) 'attitudes towards waiting time and procedures involved with medical care in home country'; and (ii) 'motivation to engage in medical tourism'. Because both of these variables were of interval measurement and their scores satisfied the assumption of normality, the chosen test statistic was again Pearson r (Manning and Munro, 2007, Levin and Rubin, 1991, Aron and Aron, 1997).

As shown in Table 4.7, a significant negative correlation was found between the two variables (Pearson $r = -0.203$, $p=0.00$). It is apparent that more negative attitudes towards waiting times and procedures involved with medical care in the home country (that is, a perception that people have to negotiate many steps and wait for a long time to receive medical treatment) was associated with a greater motivation to engage in medical tourism. Hypothesis H3 was thus confirmed.

Hypothesis H4

The testing of Hypothesis H4 (which had proposed that people engage in medical tourism because the desired medical treatment is not available in their countries of residence) involved consideration of two variables: (i) ‘availability of medical treatment in home country’; and (ii) ‘motivation to engage in medical tourism’. The former was of nominal measurement, whereas the latter was of interval measurement. One-way analysis of variance (ANOVA) was therefore chosen as the test statistic (Manning and Munro, 2007, Aron and Aron, 1997, Lind and Mason, 1997).

As shown in Tables 4.7 and 4.8, no significant difference was found in the level of motivation to engage in medical tourism between respondents in different situations with regard to the availability of medical treatment in the home country $F(2, 307) = 0.297; p=0.774 (>0.05)$. Hypothesis H4 was therefore rejected.

Table 4.8: ANOVA of availability of desired medical treatment and motivation to engage in medical tourism

Availability /Motivation	Mean	Standard deviation	Levene’s statistic	F statistic
			$F(2,307)=1.657;$ $p=0.182$	$F(2,307) =$ $0.297, p=0.774$
Available	5.5089	0.8255		
Not available	5.5600	0.8843		
Do not know	5.4167	0.9964		

To explore the combined influence of the independent variables on people’s motivation to engage in medical tourism, multiple linear regression was conducted (Tabachnick and Fidell, 1996). Table 4.9 shows the multiple correlation coefficients, analysis of variance, and part correlation squared of the three independent variables on the variance of motivation of respondents to engage in medical tourism.

Table 4.9: Multiple linear regression of factors influencing motivation to engage in medical tourism

R²	Adjusted R²		F Statistics		Constant
0.186	0.178		F(3,301) = 22.990 (p=0.00)		3.992
Independent variable	Unstandardised B coefficient	Standardised B coefficient	t-test	Significance level	
Internal health locus of control	0.392	0.313	5.971	0.000	
Attitudes towards cost of medical care in home country	-0.486	-0.215	-4.008	0.000	
Attitudes towards waiting time and procedures involved with medical care in home country	-0.080	-0.144	-2.105	0.036	

A standard multiple regression was performed between ‘motivation to engage in medical tourism’ (as the dependent variable) and ‘internal health locus of control’, ‘attitudes towards cost of medical care in home country’, and ‘attitudes towards waiting times and procedures involved with medical care in home country’ (as independent variables). The multiple correlation coefficient ($R = 0.432$) was significantly different from zero, $F(3,301) = 22.990$ ($p=0.00$), and 17.8% of variation in the dependent variable was explained by the set of independent variables ($R^2 = 0.186$; adjusted $R^2 = 0.178$). All three independent variables were found to make a significant and unique contribution to predicting the level of motivation to engage in medical tourism: (i) ‘internal health locus of control’: $sr_i^2 = 0.961$; $t = 5.971$, $p < 0.05$; (ii) ‘attitudes towards cost of medical care in home country’: $sr_i^2 = -0.432$, $t = -4.008$; $p < 0.05$; and (iii) ‘attitudes towards waiting time and procedures involved with medical care in home country’: $sr_i^2 = -0.012$; $t = -2.105$; $p < 0.05$). The equation of prediction produced by this analysis can be stated as follows:

$$\text{Level of motivation to engage in medical tourism} = (0.313 * \text{Internal health locus of control}) - (0.215 * \text{attitudes towards cost of medical care in home country}) - (0.144 * \text{attitudes towards waiting time and procedures involved with medical care in home country}) + 3.992$$

4.5.2 Subsidiary research question 1.2

The second subsidiary research question was:

- What is the nature of the information search behaviour of medical tourists when making a destination choice?

In addressing this research question, Section 2.6 proposed four hypotheses for testing:

* *Hypothesis H5*: When choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential for savings than attributes about tourism opportunities.

* *Hypothesis H6*: Prospective medical tourists with a low level of familiarity tend to engage in a high level of external search.

* *Hypothesis H7*: Prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies.

* *Hypothesis H8*: Induced image produced by relevant medical tourism authorities is important in choosing a destination for medical tourism.

Testing of these hypotheses required consideration of: (i) medical tourism destination attributes; (ii) perceived risks; (iii) familiarity with procedures involved with desired medical treatment; (iv) information search behaviour; and (v) information sources (in terms of their relative importance).

Hypothesis H5

The testing of Hypothesis H5 (which had proposed that, when choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential for savings than attributes about tourism opportunities) involved consideration of medical tourism destination attributes. Table 4.10 shows the mean scores and standard deviations for these attributes.

Table 4.10: Medical tourism destination attributes

Destination attributes	Mean score	Standard deviation
Quality of care	5.6128	0.7715
Saving potential	5.5395	0.9097
Hygiene issues	5.5372	0.7914
Safety and security issues	5.1390	0.8716
Accessibility	4.9446	1.0862
Tourism opportunities	4.0406	1.1811

It is apparent from Table 4.10 that quality of care was the most important attribute (mean = 5.6128; SD = 0.7715), followed by saving potential (mean = 5.5395; SD = 0.9097), hygiene issues (mean = 5.5372; SD= 0.7914), and safety and security issues (mean = 5.1390; SD = 0.8716). The two least-important attributes were accessibility (mean = 4.9446; SD = 1.0862) and tourism opportunities (mean = 4.0406, SD = 1.1811).

Given that hygiene, safety, and security are indirectly related to quality of care, these findings demonstrate that the respondents placed more importance on issues related to quality of care and saving potential, while being less concerned about accessibility and tourism opportunities. Hypothesis H5 was thus confirmed.

Hypothesis H6

The testing of Hypothesis H6 (which had proposed that prospective medical tourists with a low level of familiarity tend to engage in a high level of external search) involved consideration of *confidence in choosing a medical tourism destination*, which served as the dependent variable (as a proxy for *information search*, because the extent of information search is related to the degree of confidence, as discussed in Section 4.4.7). The independent variable in the testing of this hypothesis was *familiarity*, which was measured in terms of: (i) familiarity with medical procedures involved with desired medical treatment; and (ii) familiarity with Thailand as a medical tourism destination. Tables 4.11 and 4.12 show the results of the analysis of the relationships among these variables.

Table 4.11: Analysis of variance of familiarity with medical procedures and confidence in choosing a medical tourism destination

Confidence/familiarity	Mean	Standard deviation	Levene's statistic	ANOVA (F statistic)
Confident	5.1111	1.1866	F(2,307)=4.838; $p=0.009$	F(2,307)=21.277; $p=0.000$
Not confident	3.8313	1.5223		
Not sure	4.4103	1.3063		

It is apparent from the ANOVA analysis in Table 4.11 that levels of confidence in choosing a medical tourism destination were significantly influenced by familiarity with procedures involved [F (2,307) = 21.277; $p=0.000$]. People who were not confident in choosing a medical tourism destination had a lower level of familiarity with procedures involved with their desired medical treatment than those who were confident or not sure.

Table 4.12: Kruskal-Wallis and Mann-Whitney U tests of confidence in choosing a destination and familiarity with Thailand as a medical destination

Familiarity/confidence	Not sure	Unfamiliar	Familiar
Confident	U = 4440.00; $p=0.000$	U = 1474.00; $p=0.000$	Median=6.00
Not confident	U = 3192.50; $p=0.000$	Median = 4.00	df=2
Not sure	Median=5.00	$\chi^2=59.447$	Assymp sig=0.000

Because ‘familiarity with Thailand as a medical tourism destination’ was a variable that had failed to satisfy the assumption of normality, a Kruskal-Wallis test was conducted between this variable and ‘confidence in choosing a medical tourism destination’. Three groups were found to be significantly different [χ^2 (df=2; n=310) = 59.447 ($p=0.00$)]. Post hoc comparisons were conducted using Mann-Whitney U tests with a Bonferroni adjustment of alpha to $\alpha = 0.017$. The median of familiarity with Thailand as a medical tourism destination held by respondents who were confident in choosing a medical tourism destination was 6.00, which was significantly greater than the level of familiarity with Thailand as a medical tourism destination choice held by both: (i) respondents who were not sure if they are confident in choosing a medical tourism destination (median=5.00; U=4440.00; $p<0.017$); and (ii) those who were not confident in choosing a medical tourism destination (median=4.00; U=1474.00; $p<0.017$). Moreover, the level of familiarity with

Thailand as a medical tourism destination held by those who were not sure if they were confident in choosing a medical tourism destination was also significantly different from the level of familiarity held by those who were not confident in choosing a medical tourism choice too ($U=3192.50$; $p<0.017$).

The findings suggest that those with a low level of familiarity with Thailand as a medical tourism destination were less confident in choosing a medical tourism destination (and thus engaged in an external information search). Hypothesis H6 was thus confirmed.

Hypothesis H7

The testing of Hypothesis H7 (which had proposed that prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies) involved consideration of the nine types of perceived risk measured in this study. Each of these risks was therefore analysed in relation to level of confidence in choosing a medical tourism destination. For perceived risks that had normal distribution of scores, ANOVA was conducted (see Table 4.13); for perceived risks that did not have a normal distribution of scores, Kruskal-Wallis and Mann-Whitney U Test were conducted (see Table 4.14).

Table 4.13: ANOVA of perceived risks and confidence in choosing a medical tourism destination

Perceived risks/confidence in choosing a medical tourism destination	Confident	Not confident	Not sure	ANOVA (F statistic)
Financial risk	Mean=5.4480 SD=1.0433	Mean=5.5051 SD=1.1002	Mean=5.2500 SD=0.9720	F (2,307)=1.752; ($p=0.175$)
Psychological risk	Mean=3.4588 SD=1.5724	Mean=3.3663 SD=1.3981	Mean=3.7422 SD=1.6801	F (2,307)=1.627; ($p=0.198$)
Political risk	Mean=3.9633 SD=1.4972	Mean=4.2172 SD=1.3060	Mean=3.9222 SD=1.5547	F (2,307)=0.742; ($p=0.477$)
Social risk	Mean=3.3633 SD=1.5248	Mean=2.9928 SD=1.3903	Mean=3.2656 SD=1.5164	F (2,307)=1.406; ($p=0.246$)
Time risk	Mean=4.1844 SD=1.3335	Mean=4.4146 SD=1.2901	Mean=4.4297 SD=1.2402	F (2,307)=1.188 ($p=0.306$)

Table 4.14: Kruskal–Wallis test of perceived risks and confidence in choosing a medical tourism destination

Perceived risks/Confidence in choosing a medical tourism destination	Confident	Not confident	Not sure	Kruskal–Wallis test
Functional risk	Median=6	Median=6	Median=6	χ^2 (df=2; n=310) = 4.527 ($p=0.104$)
Health risk	Median=5	Median=5	Median=5	χ^2 (df=2; n=310) = 5.116 ($p=0.770$)
Physical risk	Median=5	Median=5	Median=5	χ^2 (df = 2; n=310) = 0.129 ($p=0.938$)
Satisfaction risk	Median=6	Median=6	Median=5	χ^2 (df=2; n=310) = 5.660 ($p=0.104$)

It is apparent from Tables 4.13 and 4.14 that no significant association was demonstrated between perceived risks and levels of confidence in choosing a medical tourism destination. Because those who are confident about choosing a medical destination tend not to engage in extensive search behaviour, it would seem that the respondents' search behaviour was unaffected by any types of perceived risk. The finding suggests that none of the perceived risks has a significant effect on search behaviour.

Table 4.15 shows the relationships between each of the nine types of perceived risk and the levels of importance of information from insurance companies and personal doctors. Pearson correlation was used for perceived risks whose scores were normally distributed, whereas Spearman's rank order correlation was used for perceived risks whose scores fail to satisfy the assumption of normality.

Table 4.15: Correlations between perceived risks and information from insurance companies and personal doctors

Types of perceived risk	Test statistic	Correlation/coefficient with information from insurance companies	Correlation/coefficient with information from personal doctors
Functional risk	Spearman's rho	0.171 ($p=0.003$)	0.296 ($p=0.000$)
Financial risk	Pearson r	0.278 ($p=0.000$)	0.287 ($p=0.000$)
Health risk	Spearman's rho	0.136 ($p=0.017$)	0.083 ($p=0.145$)
Physical risk	Spearman's rho	0.081 ($p=0.153$)	0.000 ($p=0.998$)
Satisfaction risk	Spearman's rho	0.194 ($p=0.001$)	0.245 ($p=0.000$)
Psychological risk	Pearson r	0.011 ($p=0.844$)	-0.322 ($p=0.000$)
Political risk	Pearson r	0.090 ($p=0.115$)	0.025 ($p=0.661$)
Social risk	Pearson r	0.000 ($p=0.995$)	-0.239 ($p=0.000$)
Time risk	Pearson r	0.138 ($p=0.015$)	-0.051 ($p=0.368$)

It is apparent that there were significant positive correlations/coefficients between certain risks (functional, financial, health, satisfaction, and time) and importance of information from insurance companies ($p < 0.05$). Positive correlations were also found between certain risks (functional, financial, and satisfaction) and information from personal doctors ($p < 0.05$).

In summary, perceived risks of all types were found to have insignificant effects on the respondents' level of confidence in choosing a medical tourism destination (which was used as a proxy for external search in this study). The finding suggests that respondents tend not to change their levels of external information search as a consequence of perceived risk. However, positive correlations between certain types of perceived risks and information from insurance companies and personal doctors suggest that respondents who perceive higher risks in certain respects tend to rely more on information from these two sources. Hypothesis H7 was therefore partially confirmed.

Hypothesis H8

The testing of Hypothesis H8 (which had proposed that induced image produced by relevant medical tourism authorities is important in choosing a medical tourism destination) required consideration of types of image agents and intention to visit Thailand as a medical tourism destination. Table 4.16 shows the results of this analysis.

Table 4.16: Mean scores of three image agents and correlations with visit intention to Thailand

Types of image agent	Mean score	Standard deviation	Correlation with intention to visit Thailand (Spearman's rho)
Induced	4.8655	0.8863	0.208 ($p=0.000$)
Autonomous	5.1428	0.7562	0.159 ($p=0.005$)
Organic	5.5975	0.8197	0.218 ($p=0.000$)

It is apparent from Table 4.16 that respondents considered information received from organic image agents (mean = 5.5975, SD = 0.8197) and autonomous agents (mean = 5.1428, SD = 0.7562) to be quite important in choosing a medical tourism destination, whereas information received from induced image agents (mean = 4.8655, SD = 0.8863) was neither important nor unimportant. However, all three types of image agents were positively and significantly correlated with intention to visit Thailand. These findings suggest that, although

respondents considered information received from organic and autonomous image agents to be more important than information from induced image agents, all three types of image agents were important to an intention to visit Thailand for medical reasons.

Two specific types of information from medical tourism authorities are worthy of consideration: (i) brochures from destination authorities; and (ii) advertising campaigns developed by destinations about medical tourism. Correlations between the information from these two sources and intention to visit Thailand would signify that respondents considered information from these two sources to be important in choosing a medical tourism destination. Because intention to visit Thailand did not satisfy the assumption of normality, Spearman's rho was chosen as the test statistic (Aron and Aron, 1997). As shown in Table 4.17, brochures from destination authorities correlated significantly with intention to visit Thailand (Spearman's rho=0.144; $p<0.05$). Advertising campaigns developed by destinations about medical tourism also correlated significantly with intention to visit Thailand (Spearman's rho=0.162; $p<0.05$). It can therefore be argued that respondents who placed more importance on information from these two sources were more likely to visit Thailand for medical reasons.

Table 4.17: Correlations between information from medical tourism authorities and intention to visit Thailand

Information source	Correlation with intention to visit Thailand (Spearman's rho)
Brochures from destination authorities	Spearman's rho=0.144; $p=0.011$
Advertising campaigns by destinations	Spearman's rho = 0.162; $p=0.004$

In summary, although the mean score for induced image agents (in general) suggested that this source of information is neither important nor unimportant in choosing a medical tourism destination, this source of information correlated significantly with intention to visit Thailand. Moreover, the results indicate that respondents considered information from all three types of image agents (including induced images) to be important in choosing a medical tourism destination. Hypothesis H8 was thus confirmed.

4.5.3 Subsidiary research question 1.3

The third subsidiary research question was:

- What are the salient criteria in choosing a medical tourism destination?

In addressing this research question, Section 2.6 proposed four hypotheses for testing:

* *Hypothesis H9*: Quality of care is a non-compensatory rule; that is, prospective medical tourists tend to avoid destinations that are perceived to be inferior in terms of the quality of medical care that they provide.

* *Hypothesis H10*: Potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain attributes for a greater potential for cost saving.

* *Hypothesis H11*: The image of a destination with regard to hygiene has a positive effect on medical tourists' intention to visit

* *Hypothesis H12*: The image of a destination with regard to safety and security has a positive effect on medical tourists' intention to visit.

In testing these hypotheses, it was necessary to consider destination attributes and evaluation of alternative medical tourism destinations, as shown in Table 4.18.

Table 4.18: Correlations between destination attributes and visit intentions

Destination attributes	Intention to visit Thailand	Intention to visit Malaysia	Intention to visit India	Intention to visit Singapore
Quality of care	Spearman's rho=0.017; p=0.771	Pearson's r=0.031; p=0.059	Spearman's rho=-0.142; p=0.012	Spearman's rho=0.075; p=0.186
Saving potential	Spearman's rho=0.140; p=0.014	Pearson's r=0.031; p=0.590	Spearman's rho=0.091; p=0.112	Spearman's rho=-0.105; p=0.017
Safety and security	Spearman's rho=0.058; p=0.309	Pearson's r=-0.004; p=0.939	Spearman's rho=-0.057; p=0.317	Spearman's rho=0.075; p=0.187
Hygiene issues	Spearman's rho=-0.025; p=0.666	Pearson's r=0.056; p=0.330	Spearman's rho=-0.144; p=0.011	Spearman's rho=0.023; p=0.691
Tourism opportunities	Spearman's rho=0.148; p=0.013	Pearson's r=0.85; p=0.153	Spearman's rho=0.085; p=0.153	Spearman's rho=0.030; p=0.622
Accessibility	Spearman's rho=0.090; p=0.112	Pearson's r=0.032; p=0.571	Spearman's rho=-0.088; p=0.060	Spearman's rho=0.047; p=0.409

Hypothesis H9

The testing of Hypothesis H9 (which had proposed that quality of care is a non-compensatory rule; that is, prospective medical tourists tend to avoid destinations that are perceived to be inferior in terms of quality of medical care that they provide) involved consideration of two variables: (i) quality of care (as the independent variable) and (ii) intention to visit Thailand or its three competing medical tourism destinations (as dependent variables). Although all of these variables were of interval measurement, only the mean scores of intention to visit Malaysia satisfied the assumption of normality. Spearman's rank order correlation (Spearman's rho) was therefore chosen as the test statistic (Manning and Munro, 2007).

It was apparent from Table 4.10 (see above) that quality of care (mean = 5.6128, SD = 0.7715) was the most important destination attribute for respondents in choosing a medical tourism destination. However, Table 4.18 shows that this attribute (quality of care) correlated significantly with intention to visit only in the case of India (Spearman's rho = -0.142; $p < 0.05$); that is, respondents who placed greater importance on quality of care were less likely to visit India for a medical reason. The insignificant correlations between quality of care and intentions to visit Thailand, Malaysia, and Singapore suggest that respondents who placed greater importance on quality of care were neither more nor less likely to visit these destinations. The findings suggest that, for a destination to be even considered as a medical tourism destination, it must reach a predetermined 'threshold' level of quality of care. However, providing a quality of care greater than this threshold level would not necessarily lead to a greater intention to visit. Hypothesis H9 was thus confirmed.

Hypothesis H10

The testing of Hypothesis H10 (which had proposed that potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain attributes for cost saving) involved consideration of two variables: (i) saving potential; and (ii) intention to visit Thailand or its three competing medical tourism destinations. Although all of these variables were of interval measurement, intentions to visit Thailand, India, or Singapore failed to satisfy the assumption of normality. Spearman's rho was therefore chosen

to test the correlation between saving potential and intention to visit the three destinations (Aron and Aron, 1997, Levin and Rubin, 1991). In the case of intention to visit Malaysia, which *did* satisfy the assumption of normality, the correlation was tested by Pearson product-moment correlation (Levin and Rubin, 1991, Manning and Munro, 2007).

As previously noted, Table 4.18 showed that a significant positive correlation existed between saving potential and intention to visit Thailand (Spearman's $\rho = 0.140$, $p < 0.05$). A significant negative correlation was also apparent between saving potential and intention to visit Singapore (Spearman's $\rho = -0.105$, $p < 0.05$). In the case of intention to visit Malaysia or intention to visit India, there was no significant correlation between saving potential and intention to visit.

These findings suggest that prospective tourists who were more price-sensitive were more likely to perceive Thailand as an appealing medical tourism destination, but less likely to perceive Singapore as an appealing destination. These respondents would appear to be willing to sacrifice certain attributes of their medical vacation in the interests of greater saving potential, while avoiding destinations that are perceived to be expensive. Hypothesis H10 was thus confirmed.

Hypothesis H11

The testing of Hypothesis H11 (which had proposed that the image of a destination with regard to hygiene has a positive effect on medical tourists' intention to visit) involved consideration of three variables: (i) hygiene issues; (ii) image of hygiene level of Thailand and its three competing medical tourism destinations; and (iii) intentions to visit the four destinations. Although all of these variables were of interval measurement, scores for intentions to visit Malaysia, Thailand, and India failed to satisfy the assumption of normality. In addition, image of hygiene level of Singapore and Malaysia failed to satisfy the assumption of normality. Spearman's rank order correlation (Spearman's ρ) was therefore chosen as the test statistic (Levin and Rubin, 1991, Aron and Aron, 1997, Neter et al., 1998). Table 4.19 shows the correlations between image of hygiene level and intention to visit.

Table 4.19: Correlations between image of hygiene level and intention to visit

Independent variable	Dependent variable	Correlation
Image of hygiene level of Thailand	Intention to visit Thailand	Spearman's rho=0.372; <i>p</i> =0.000
Image of hygiene level of Malaysia	Intention to visit Malaysia	Spearman's rho=0.338; <i>p</i> =0.000
Image of hygiene level of India	Intention to visit India	Spearman's rho=0.403; <i>p</i> =0.000
Image of hygiene level of Singapore	Intention to visit Singapore	Spearman's rho=0.076; <i>p</i> =0.183

As previously noted, Table 4.10 showed that hygiene issues represented the third-most important attribute of a medical tourism destination (mean = 5.5372; SD = 0.7914). It was apparent that respondents placed significant importance on the hygiene level of a medical tourism destination; indeed, this attribute ranked with quality of care, saving potential, and safety and security issues as an attribute of considerable importance. This is also reflected in Table 4.19, which shows that a significant relationship existed between hygiene level and intention to visit Thailand, India, or Malaysia. There was no such significant relationship in the case of Singapore, which was rated very high in hygiene level (6.32, see Table 4.5); it is likely that this result was due to Singapore's reputation for relatively higher prices for medical care compared with the other three destinations.

The significant correlations between image of hygiene level and intention to visit Thailand, India, or Malaysia confirm Hypothesis H11.

Hypothesis H12

The testing of Hypothesis H12 (which had proposed that the image of a destination with regard to safety and security has a positive effect on medical tourists' intention to visit) involved consideration of three variables: (i) safety and security issues; (ii) image of safety and security (of Thailand and its three competing destinations); and (iii) intentions to visit the four destinations. Although all of these variables were of interval measurement, several of them failed to satisfy the assumption of normality. Spearman's rank order correlation (Spearman's rho) was therefore chosen as the test statistic for all correlations, except those involving image of safety and security of India and intention to visit India—for which Pearson's product-moment correlation was applied (Neter et al., 1998, Aron and Aron, 1997,

Levin and Rubin, 1991). Table 4.20 shows the correlations between image of safety and security and intentions to visit.

Table 4.20: Correlations between image of safety and security and intention to visit

Independent variable	Dependent variables	Test statistic	Correlation
Image of safety and security of Thailand	Intention to visit Thailand	Spearman's rho	Spearman's rho=0.388; $p=0.000$
Image of safety and security of Malaysia	Intention to visit Malaysia	Spearman's rho	Spearman's rho=0.313; $p=0.000$
Image of safety and security of India	Intention to visit India	Pearson r	Pearson r=0.390; $p=0.000$
Image of safety and security of Singapore	Intention to visit Singapore	Spearman's rho	Spearman's rho=0.053; $p=0.000$

As previously noted, Table 4.9 showed that safety and security issues were the fourth-most important attribute of a medical tourism destination (mean = 5.1390; SD= 0.8716); indeed, this attribute ranked with quality of care, saving potential, and hygiene as significant issues for consideration by respondents. This was confirmed in Table 4.20, which shows that significant positive correlations existed between images of safety and security and intentions to visit in the cases of all four destinations.

It is thus apparent that image of safety and security is important for intention to visit. Hypothesis H12 was thus confirmed.

4.5.4 Summary of hypothesis testing

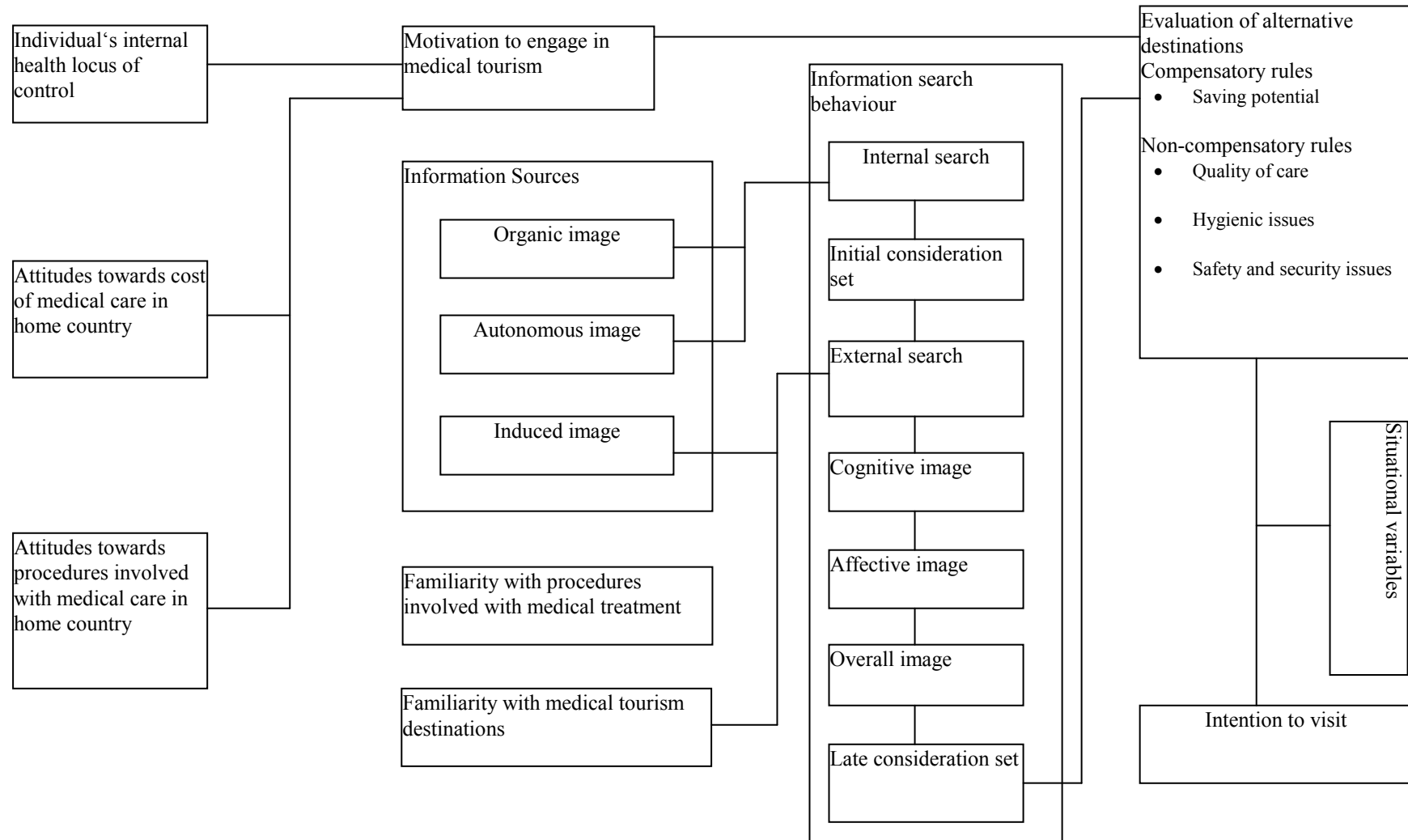
This section has addressed the testing of 12 hypotheses (under three research questions). Of the 12 hypotheses, 10 were confirmed, one was partially confirmed, and one was rejected. Table 4.21 summarises the testing of the 12 hypotheses.

Table 4.21: Summary of testing of hypotheses

Number	Hypothesis	Result of test
H1	People who engage in medical tourism tend to possess a high level of internal health locus of control	Confirmed
H2	People who engage in medical tourism think that medical care in their countries of residence is financially unaffordable	Confirmed
H3	People engage in medical tourism because they do not want to wait to receive medical treatments in their countries of residence	Confirmed
H4	People engage in medical tourism because the desired medical treatment is not available in their countries of residence	Rejected
H5	When choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential for savings than attributes about tourism opportunities	Confirmed
H6	Prospective medical tourists with a low level of familiarity tend to engage in a high level of external search	Confirmed
H7	Prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies	Partially confirmed
H8	Induced image produced by relevant medical tourism authorities is important in choosing a destination for medical tourism	Confirmed
H9	Quality of care is a non-compensatory rule; that is, prospective medical tourists tend to avoid destinations that are perceived to be inferior in terms of the quality of medical care that they provide	Confirmed
H10	Potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain attributes for a greater potential for cost saving	Confirmed
H11	The image of a destination with regard to hygiene has a positive effect on medical tourists' intention to visit	Confirmed
H12	The image of a destination with regard to safety and security has a positive effect on medical tourists' intention to visit	Confirmed

The results of the testing of the hypotheses has implications for the model previously proposed in Chapter Two (Figure 2.4). A modified model is shown in Figure 4.2.

Figure 4.2: Medical tourism destination choice process model



4.6 Conclusion

This chapter has described data analysis in the study—including the pilot study conducted prior to the main study. After some modifications as a result of the pilot study, data collection for the substantive study principally involved an Internet survey, complemented by a hardcopy postal mail survey.

Data from a total of 310 valid questionnaires were included in the analysis. All variables were tested for validity and reliability before proceeding to the testing of the 12 hypotheses proposed in preceding chapters. Of the 12 hypotheses, which were tested by appropriate statistical methods for the variables involved, ten were confirmed, one was partially confirmed, and one was rejected.

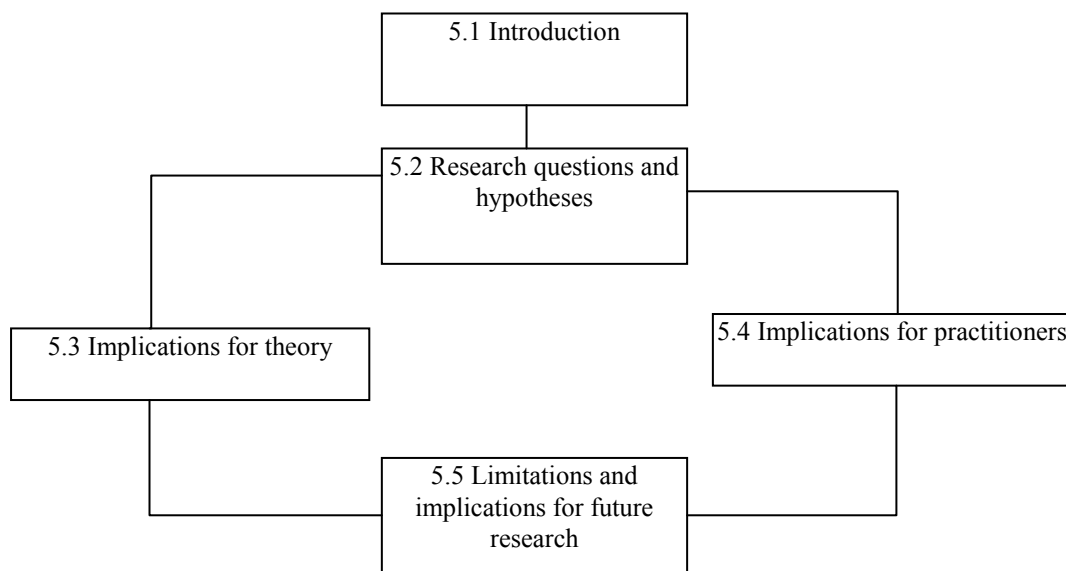
Chapter Five

Conclusions and Implications

5.1 Introduction

Chapter 5 concludes this thesis by formally stating the findings regarding the testing of each hypothesis (as reported in the previous chapter). The conclusions regarding the hypotheses are then utilised to address the research question. The chapter then discusses the implications of the research findings for theory and for practitioners. Finally, the limitations of the study and the implications for future research are stated. Figure 5.1 illustrates the structure of Chapter 5

Figure 5.1: Structure of Chapter Five



5.2 Research questions and hypotheses

The twelve hypotheses proposed in Chapter 2 have been tested, as reported in Chapter 4. Ten of the hypotheses were confirmed (H1–H3, H5–H6, H8–H12), one was rejected (H4), and another was partially confirmed (H7). As previously noted, Hypotheses H1 to H4 were proposed under subsidiary research question 1.1, H5 to H8 were proposed under subsidiary research question 1.2, and H9 to H12 were proposed under research question 1.3. The findings regarding the testing of these hypotheses are formally stated below.

5.2.1 Subsidiary research question 1.1

The first subsidiary research question addressed in this study was:

* What motivates people to engage in medical tourism?

The effective promotion of any tourism destination requires a thorough understanding of the motivation of prospective tourists (Mansfeld, 1992). Motivation influences the whole process of choice behaviour, including information search, consideration set, image formation, and evaluation of alternative destinations (Mansfeld, 1992, Um and Crompton, 1990).

A variety of factors influence the motivation of people to leave their own country and travel to foreign destinations to receive medical treatment. These factors include the person's internal health locus of control and their attitudes towards such issues as cost, waiting times, and the administrative procedures involved with the medical systems in their home countries (Delinsky, 2005, Awadzi and Panda, 2005).

In the present study, four hypotheses were proposed and tested to address the first subsidiary research question. The findings with regard to these four hypotheses are formally stated below.

Hypothesis H1

Hypothesis H1 had proposed that people who engage in medical tourism tend to possess a high level of internal health of control.

In testing this hypothesis, the present study demonstrated that a significant relationship existed between the health locus of control of the respondents and the level of their motivation to engage in medical tourism (Pearson $r = 0.343$; $p < 0.05$). Hypothesis H1 was thus confirmed.

In accordance with the contention of Delinsky (2005), the present finding suggests that prospective medical tourists with a higher level of internal health locus of control have greater motivation to engage in health-enhancing behaviours, including the adoption of medical tourism (Delinsky, 2005).

Hypothesis H2

Hypothesis H2 had proposed that people who engage in medical tourism think that medical care in their countries of residence is financially unaffordable.

In testing this hypothesis, the present study demonstrated that a significant relationship existed between the attitudes of the respondents towards the cost of medical care in their home country and the level of their motivation to engage in medical tourism (Pearson $r = -0.267$; $p < 0.05$). Hypothesis H2 was thus confirmed.

In accordance with Awadzi and Panda (2005), the present finding suggests that prospective medical tourists with more negative attitudes towards the cost of medical care provided in their countries of residence have greater motivation to travel to Thailand for medical tourism(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005)(Awadzi and Panda, 2005).

Hypothesis H3

Hypothesis H3 had proposed that people engage in medical tourism because they do not want to wait to receive medical treatment in their countries of residence.

In testing this hypothesis, the present study demonstrated that a significant relationship existed between the attitudes of respondents towards waiting times and administrative procedures involved with the health-care system in their home country and the level of their motivation to engage in medical tourism (Pearson $r = -0.203$; $p < 0.05$). Hypothesis H3 was thus confirmed.

The present finding suggests that prospective medical tourists who hold more negative attitudes towards waiting times and administrative procedures involved with the health-care system in their home country have greater motivation to engage in medical tourism to Thailand.

Hypothesis H4

Hypothesis H4 had proposed that people engage in medical tourism because the desired medical treatment is not available in their countries of residence.

In testing this hypothesis, the present study found that the availability of desired medical treatment in the home countries of respondents had an insignificant effect on their level of motivation to engage in medical tourism [$F(2,307) = 0.297; p > 0.05$]. Hypothesis H4 was therefore rejected.

The results thus suggest that the motivation of prospective medical tourists to engage in medical tourism to Thailand is not dependent on the availability or unavailability of desired medical treatment in their home country.

Summary of findings: Subsidiary research question 1.1 (Hypotheses H1–H4)

The findings of the study with regard to subsidiary research question 1.1 show that three factors (health locus of control, attitudes towards cost in home country, and attitudes towards administrative procedures in home country) uniquely and significantly contribute to the levels of motivation of prospective medical tourists in accordance with the following equation:

$$(0.313 \text{ *internal health locus of control}) - (0.215 \text{ * attitudes towards cost in home country}) - (0.144 \text{ * attitudes towards procedures in home country}) + 3.992$$

In summary, the present study concludes that three factors increase the motivation of prospective medical tourists to engage in medical tourism to Thailand. First, individuals with higher levels of internal health locus of control are more likely to engage in health-enhancing

behaviours (Wallston et al., 1994), including medical tourism. Secondly, individuals are more motivated to seek medical treatment outside their countries of residence if they believe that the cost of medical care in their home country is too high (Awadzi and Panda, 2005). Thirdly, the motivation to engage in medical tourism is enhanced if waiting times are perceived as being too long (Awadzi and Panda, 2005). In contrast, the unavailability of desired medical treatment in the home country does not appear to influence the motivation of people to engage in medical tourism (Caballero-Danell and Mougomba, 2006).

5.2.2 Subsidiary research question 1.2

The second subsidiary research question addressed in this study was:

- * What is the nature of the information search behaviour of medical tourists when making a destination choice?

Medical tourism destinations that wish to provide effective information about the merits of their destination need to understand the nature of the information search behaviour of prospective medical tourists. According to several authors, the external information search behaviour of tourists is influenced by the individual's level of product knowledge, familiarity with the product, and perceptions of risk (Gursoy, 2003, Beatty and Smith, 1987, Sonmez and Graefe, 1998). In addition, heightened perceptions of certain risks have been associated with reliance on certain types of information sources (Bieger and Laesser, 2004).

Because the level of risk associated with the choice of a medical tourism destination is greater than that associated with choosing a general tourism destination, prospective medical tourists are more likely to rely on information from specific sources—such as medical tourism professionals, their personal doctors, and medical insurance companies. In addition, as suggested by the above findings with regard to motivation, medical tourists are more likely to attach more importance to information that is related to medical care and potential for cost savings than to information about other destination attributes (Hanlan et al., 2006, Moutinho, 1987).

In the present study, four hypotheses were proposed and tested to address the second subsidiary research question. The findings regarding the testing of these hypotheses are formally stated below.

Hypothesis H5

Hypothesis H5 had proposed that, when choosing a destination, prospective medical tourists place more importance on destination attributes related to quality of care and potential for savings than attributes about tourism opportunities

In testing this hypothesis, the present study compared the mean scores of six attributes of medical tourism destinations. It was found that the respondents attached substantial importance to quality of care (mean score 0.56128) and saving potential (0.5395). They also considered hygiene issues (5.5372) and safety and security issues (5.1390), which are indirectly related to quality of medical care, to be quite important. Hypothesis H5 was thus confirmed.

Hypothesis H6

Hypothesis H6 had proposed that prospective medical tourists with a low level of familiarity [with medical procedures and with Thailand as a medical tourism destination] tend to engage in a high level of external search.

In testing this hypothesis, one-way analysis of variance (ANOVA) detected a significant relationship between the respondents' level of confidence in choosing a medical tourism destination and their level of familiarity with procedures involved with medical treatment [$F(2,307) = 21.277 (p < 0.05)$]. Post hoc comparisons (Turkey HSD) found that there was a significant level of familiarity with medical procedures among three groups of respondents: (i) those who were confident (mean = 5.1111, SD = 1.1866); (ii) those who were not confident (mean = 3.8313, SD = 1.5223); and (iii) those who were not sure whether they were confident (mean = 4.4103, SD = 1.3063). These results show that respondents who were not confident in choosing a medical tourism destination also had the lowest level of familiarity with procedures involved with their medical treatment.

With regard to the level of familiarity with Thailand as a medical tourism destination, a Kruskal Wallis test was conducted to test the relationship between familiarity with Thailand and level of confidence in choosing a medical tourism destination. Three groups were found to be significantly different [χ^2 (df=2, n=310) = 59.447 ($p=0.00$)]. Post hoc comparisons were conducted using Mann-Whitney U Tests with a Bonferroni adjustment of alpha (to 0.017). The median of familiarity with Thailand as a medical tourism destination held by respondents who were confident in choosing a medical tourism destination was 6.00, which was significantly greater than the level of familiarity held by respondents who were not sure whether they are confident in choosing a medical tourism destination (median=5.00; $U=4440.00$; $p<0.017$), and those who were not confident in choosing a medical tourism destination (median=4.00; $U=1474.00$; $p<0.017$). Moreover, the level of familiarity with Thailand as a medical tourism destination held by those who were not sure whether they were confident in choosing a medical tourism destination was also significantly different from the level of familiarity with Thailand as a medical tourism destination choice held by those who were not confident in choosing a medical tourism destination ($U=3192.50$; $p<0.017$). The results showed that respondents with a low level of familiarity with Thailand as a medical tourism destination were also less confident in choosing a medical tourism destination (and thus more likely to engage in external information search).

Taken together, these results confirmed Hypothesis H6.

Hypothesis H7

Hypothesis H7 had proposed that prospective medical tourists with a high level of perceived risk tend to engage in a high level of external search, especially from doctors and insurance companies.

In testing this hypothesis, no significant effect of any types of perceived risk was found on the level of confidence of prospective medical tourists in choosing a medical tourism destination. This finding was in apparent contradiction to the commonly accepted view that tasks with higher levels of risk and involvement (such as choosing a medical tourism destination) are usually associated with higher levels of external information search (Bettman,

1973) (Hawkin et al., 2001). It is likely that the explanation for the present finding is that information regarding medical care tends to be too complex for most prospective medical tourists to digest. As a consequence, people therefore tend to rely on information from particular information sources, such as personal doctors and insurance companies.

Evidence for this explanation was found in the present study, which demonstrated that certain risks (functional, financial, health, satisfaction, and time) correlated significantly with the level of importance attached by respondents to information from insurance companies. Significant positive relationships were also found between functional, financial, and satisfaction risks and the importance attached to information from personal doctors.

Taken together, these results provided partial confirmation for Hypothesis H7.

Hypothesis H8

Hypothesis H8 had proposed that induced image produced by relevant medical tourism authorities is important in choosing a medical tourism destination.

In testing this hypothesis, significant correlations were found between three types of destination image agents and intention to visit Thailand for medical tourism. With regard to induced image agents, two items (brochures from tourism authorities and advertising campaigns by destinations) were found to correlate positively and significantly with intention to visit Thailand for medical tourism.

The findings indicate that all three types of image agents, including induced image produced by medical tourism authorities, are important in choosing a medical tourism destination. Hypothesis H8 was thus confirmed.

Summary of findings: Subsidiary research question 1.2 (Hypotheses H5–H8)

The findings of the study with regard to subsidiary research question 1.2 reveal that prospective medical tourists attach most importance to four destination attributes: (i) quality of care; (ii) potential for cost savings; (iii) hygiene issues; and (iv) safety and security issues.

Moreover, the study finds that product familiarity—both familiarity with medical procedures and familiarity with a country as a medical tourism destination—exerts a strong influence on information search behaviour. Prospective tourists who perceive that they possess a low level of familiarity with procedures and destinations tend to engage in a higher level of external information search.

Although perceived risks (in general) do not appear to exert a strong influence on external search behaviour, there are certain risks that increase reliance on information from insurance companies and personal doctors.

Finally, when searching for information, prospective medical tourists rely on information from a variety of sources, but they do tend to attach more importance to information from organic and autonomous agents.

5.2.3 Subsidiary research question 1.3

The third subsidiary research question addressed in this study was:

* What are the salient criteria in choosing a medical tourism destination?

This question was addressed by testing four hypotheses regarding certain destination attributes and so-called ‘_decision rules’—which can be categorised as ‘_compensatory decision rules’ and ‘_non-compensatory rules’ (Mansfeld, 1992, Moutinho, 1987).

Hypothesis H9

Hypothesis H9 had proposed that quality of care is a non-compensatory rule; that is, prospective tourists tend to avoid destinations that are perceived to be inferior in terms of the quality of medical care that they provide.

In testing this hypothesis, a significant negative relationship ($p < 0.05$) was found between quality of care and the respondents' intention to visit India; however, no significant relationship ($p > 0.05$) was found between quality of care and intentions to visit other proposed destinations. Given that quality of care was considered by respondents to be the most important destination attribute when choosing a medical tourism destination, it is apparent that medical tourists expect medical tourism destinations to provide an acceptable standard of medical care; however, the provision of a higher quality of care beyond this threshold standard does not appear to make a destination even more attractive. These results confirmed Hypothesis H9.

Hypothesis H10

Hypothesis H10 had proposed that potential for cost saving is a compensatory rule; that is, prospective medical tourists are willing to sacrifice certain other attributes for cost saving.

In testing this hypothesis, a significant positive relationship was found between saving potential and intention to visit Thailand ($\rho = 0.140$; $p < 0.05$). A significant negative relationship was also found between saving potential and intention to visit Singapore ($\rho = -0.105$; $p < 0.05$). However, there was no significant correlation between saving potential and intentions to visit Malaysia or India.

These results suggest that price-sensitive medical tourists tend to choose Thailand (and avoid Singapore) as the preferred medical destination. This is in accordance with the general perception that Singapore is known for its relatively higher prices for medical care (Choo, 2002, M2Presswire, 2008), whereas Thailand has relatively lower costs than other destinations (M2Presswire, 2008).

Given that potential for saving was ranked by respondents as the second-most important destination attribute, the results show that the respondents were willing to sacrifice certain attributes to benefit from the greater saving potential offered by certain destinations; in other words, saving potential represents a so-called ‘compensatory rule’. Hypothesis H10 was thus confirmed.

Hypothesis H11

Hypothesis H11 had proposed that the image of a destination with regard to hygiene has a positive effect on medical tourists’ intention to visit.

In testing this hypothesis, the present study found that the images of Thailand, Malaysia, and Singapore (with respect to hygiene) correlated positively and significantly ($p < 0.05$) with respondents’ intention to visit these destinations. This result confirmed Hypothesis H11.

Hypothesis H12

Hypothesis H12 had proposed that the image of a destination with regard to safety and security has a positive effect on medical tourists’ intention to visit.

In testing this hypothesis, the present study found that the images of Thailand, Malaysia, and India (with respect to safety and security) correlated positively and significantly ($p < 0.05$) with respondents’ intentions to visit these countries. Hypothesis H12 was thus confirmed.

Summary of findings: Subsidiary research question 1.3 (Hypotheses H9–H12)

The findings of the study with regard to subsidiary research question 1.3 reveal that prospective medical tourists apply certain ‘decision rules’ to particular destination attributes that are directly or indirectly related to their motivation to travel (Gnoth, 1997, Mansfeld, 1992, Hanlan et al., 2006). These destination attributes are quality of care and saving potential (which are directly related to the motivation to travel) (Marlowe and Sullivan, 2007,

Awadzi and Panda, 2005) and hygiene and security/safety (which are indirectly related to the motivation of medical tourists) (Sonmez and Sirikaya, 2002).

In accordance with (Moutinho, 1987), the present study has shown that quality of care is assessed by a ‘non-compensatory’ rule; that is, medical tourists eliminate alternative medical tourism destinations that are unacceptable in terms of quality of care. However, the provision of medical care of a higher quality than the threshold level does not lead to increased intention to visit. In contrast, potential for saving is assessed by a ‘compensatory rule’; that is, medical tourists tend to ‘trade off’ other attributes for greater saving potential (Mansfeld, 1992). Taking these two findings together, it is apparent that medical tourism destinations should therefore promote an acceptable quality of care *and* greater saving potential.

The images of destinations with regard to hygiene and safety/security also influence intentions to visit for medical reasons. Although these attributes are only indirectly related to medical tourism, prospective medical tourists who perceive a destination as being hygienic and safe are more likely to choose that destination for medical tourism. Medical tourism destinations should therefore manage their images with regard to hygiene and safety/security because these images have a demonstrable positive effect on intention to visit.

5.2.4 Restatement of the research question

The three subsidiary research questions addressed above represent specific aspects of the substantive research question:

* What are the salient factors that influence the destination choice of medical tourists?

In addressing this substantive research question it is therefore appropriate to synthesise the findings regarding the various aspects of the problem as expressed in the three subsidiary questions.

Subsidiary research question 1.1 referred to various aspects of the *motivation* of medical tourists to engage in medical tourism. The factors that were found to exert an

influence on the level of motivation to engage in medical tourism included: (i) health locus of control; (ii) attitudes towards the cost of health care provided in the tourists' countries of residence; and (iii) attitudes towards waiting times and administrative procedures involved with the health-care systems in the medical tourists' countries of residence.

The first of these, health locus of control, has previously been identified by Carter and Kulbrok (2002) as a factor that motivates people to engage in health-enhancing behaviour, including medical tourism. This was confirmed in the present study, which found that a significant positive correlation exists between health locus of control and level of motivation to engage in medical tourism. However, having an internal health locus of control would seem to be a necessary but not sufficient factor in motivating people to engage in medical tourism. If people are to seek access to medical treatment in another country, it seems that they must not only have an internal health locus of control but also a belief that the cost of medical treatment in their home country is too high and/or that the waiting time is too long (Connell, 2006, Marlowe and Sullivan, 2007). This contention was also confirmed in the present study, which found that attitudes regarding both cost and administrative procedures involved with the health-care system in the prospective medical tourists' home countries were negatively correlated with their level of motivation to engage in medical tourism. In summary therefore, it can be concluded that individuals with an internal health locus of control who hold negative attitudes about the health-care system in their countries of residence (regarding both costs and waiting time) tend to be more motivated to engage in medical tourism.

It is thus apparent that destinations wishing to pursue medical tourism markets should focus on people who are not only health conscious but also dissatisfied with the current health-care system in their home countries with regard to cost and administrative procedures. Although prospective medical tourists have been characterised as 'uninsured', 'underinsured', and 'uninsurable' (Awadzi and Panda, 2005, Cosh, 1997), such people might not necessarily possess an internal health locus of control; conversely, those who do possess health insurance might still choose to receive their desired medical treatment abroad because they do not want to wait a long time to receive such treatment in their countries of residence. The present study thus suggests that characterising prospective medical tourists as 'uninsured', 'underinsured', and 'uninsurable' can lead to over-representation and/or under-representation of the true population of prospective medical tourists. Rather, prospective medical tourists should be

identified as people with an internal health locus of control who hold negative attitudes about the prevailing health-care system in their home countries with regard to cost and administrative procedures.

Subsidiary research question 1.2 referred to the *information search behaviour* of medical tourists when choosing a destination. It has been suggested that prospective medical tourists tend to seek for more information from external sources when they feel that they are unfamiliar with the procedures involved with their medical treatment and/or unfamiliar with the alternative destinations that are available (Gursoy, 2003, Wirtz and Mattila, 2003). Moreover, because the choice of a medical tourism destination concerns a person's personal health and well-being, it has been suggested that prospective medical tourists are likely to engage in more extensive external information search behaviour in order to reduce the level of perceived risk to a manageable level (Sonmez and Graefe, 1998, Sirikaya and Woodside, 2005). However, in the present study, none of the perceived risks had a significant effect on prospective medical tourists' confidence in choosing a destination. This can perhaps be explained by the Elaboration Likelihood Model (Hawkin et al., 2001), which postulates that two factors influence individuals to exert different levels of mental effort in processing information about products and services: (i) level of involvement; and (ii) ability to process the information. In certain circumstances, such as when the information is very complex, individuals choose to process information about a product or service on the basis of its presentation cues, rather than its content, even when the level of involvement with a product or service is high. This model might explain why perceived risks did not have a significant effect on the respondents' confidence in choosing a destination. Because medical tourism is inherently complex, prospective medical tourists might thus rely on certain presentation cues, rather than focusing on the content of the information—which would normally be the case when processing information about a high-involvement product or service. Nevertheless, although risks did not influence the level of external information search of respondents in the present study, such risks did influence their reliance on information from certain trusted sources—namely, personal doctors and insurance companies.

When searching for information, it has been suggested that prospective medical tourists tend to attend only to information that is related to their motivation to travel (Phelps, 1986, Mansfeld, 1992, Gnoth, 1997). In the present study, six destination attributes were included

for analysis; of these, four attributes (quality of care, saving potential, hygiene issues, and safety and security issues) were found to be important when searching for information about alternative medical tourism destinations.

With regard to information sources, the respondents in the present study attached greatest importance to information from organic image agents (personal doctors, friends, and family) and autonomous image agents (news, documentaries, and non-commercial information about destinations) than information from induced image agents (that is, intentional marketing communication activities). However, all three types of information sources were found to have some influence on the choice of Thailand as a medical tourism destination. More specifically, medical tourists who had greater perceptions of certain risks (functional, financial, health, satisfaction, and time) tended to rely more on information from insurance companies in choosing a medical tourism destination, whereas those with greater perceptions of functional, financial, satisfaction, and social risks tended to rely more on information from personal doctors.

Subsidiary research question 1.3 referred to the *evaluation* of alternative medical tourism destinations. In making such an evaluation, it has been suggested that medical tourists assign levels of utility to various attributes in accordance with the propensity of those attributes to satisfy the tourists' needs or motivations (Crouch and Louviere, 2001). As noted above, the present study found that four attributes were important for respondents in evaluating alternative destinations: (i) quality of care; (ii) saving potential; (iii) destination image regarding hygiene; and (iv) destination image regarding safety and security. In particular, for a medical tourism destination to be considered as a viable alternative, it must be perceived as providing an acceptable quality of medical care; medical tourists will not consider any destination that does not provide this threshold level of care, even if the destination offers other benefits—such as saving potential or tourism opportunities.

Saving potential is directly related to the motivation of medical tourists (Marlowe and Sullivan, 2007). Indeed, medical tourists are willing to sacrifice certain attributes, such as quality of care above the threshold level, to benefit from greater saving potential. In the present study, price-sensitive medical tourists were likely to find Thailand more appealing than Singapore. Medical tourism destinations should therefore seek to capitalise on their

relatively greater saving potential, but in doing so they must first ensure that they provide an acceptable quality of medical care.

Destination image with regard to hygiene also positively influenced the desirability of a medical tourism destination. Prospective medical tourists in the present study were more likely to choose destinations that were perceived as being more hygienic. Medical tourism destinations should therefore promote an hygienic image, while being mindful of the need to provide an acceptable quality of care and relative saving potential.

Destination images with regard to safety and security were also found to exert a positive influence on the desirability of a medical tourism destination. In addition to providing an acceptable quality of care, greater saving potential, and a positive image with regard to hygiene, potential destinations should therefore promote their image with regard to safety and security if they wish to succeed as a medical tourism destination.

5.3 Implications for theory

Although this research was conducted to address a research question that is primarily of managerial concern (‘What are the salient factors that influence the destination choice of medical tourists?’), the findings also have theoretical implications. The implications of the study for theory can be considered under three headings: (i) the theory of tourists’ external information search behaviour; (ii) the theory of tourists’ reliance on information sources; and (iii) the theory of evaluation of alternative destinations. Each of these is considered in greater detail below.

5.3.1 Tourists’ external information search behaviour

As previously noted, the choice of a medical tourism destination tends to be high-involvement task with a high perceived risk. As a consequence, the literature suggests that medical tourists are likely to engage in extensive information search to minimise the inherent risk (Crotts, 2000, Mansfeld, 1992, Zaichkowsky, 1985) (Bieger and Laesser, 2004, Sonmez and Graefe, 1998, Crotts, 2000). Prospective medical tourists also tend to solve their complex

decision-making problems by setting certain ‘decision rules’ for assessment of particular attributes (Decrop, 2000, Hawkin et al., 2001).

A significant factor that influences the external search behaviour of tourists is their knowledge of tourism activities and alternative destinations (Wirtz and Mattila, 2003, Gursoy and McCleary, 2004, Beatty and Smith, 1987). Tourists who lack confidence about their knowledge of these matters tend to rely more on external information search and less on internal information search (Hensher et al., 1999, Gursoy, 2003). Information can thus be understood as a risk minimiser (Mansfeld, 1992, Bettman, 1973).

Against this theoretical background, the present study has demonstrated that the respondents’ familiarity with medical procedures and/or with Thailand as a medical tourism destination had a significant, positive influence on their confidence in choosing a destination (and thus on their lack of reliance on external information search). However, although the respondents rated certain types of perceived risk as being quite high, none of these risks was found to exert a significant effect on confidence in choosing a destination (and thus on the need to engage in search behaviour). The present study has thus made a contribution to theory by demonstrating that other factors (such as the complexity of the issues) must be taken into consideration when determining antecedent factors of external search behaviour in medical tourism. Because medical procedures tend to be complex, medical tourists are more likely to process information by using presentation cues, rather than the core content of the information in accordance with the Elaboration Likelihood Model of (Hawkin et al., 2001).

5.3.2 Tourists’ reliance on information sources

The second theoretical implication derived from the present study concerns reliance on information sources. As previously noted, information sources can be divided into autonomous image agents, organic image agents, and induced image agents (Hankinson, 2004, Beerli and Martin, 2004). Autonomous image agents and organic image agents generally have greater credibility than induced image agents, who are often questioned in terms of trustworthiness and expertise (Hawkin et al., 2001, Fakeye and Crompton, 1991). However, tourists use all three information sources in combination, while tending to rely on one particular source of information (Mansfeld, 1992). Although greater access to

information has meant that travel intermediaries are declining in importance as a source of information, tourists who are considering visiting remote destinations or destinations associated with higher perceived risks still rely on information from travel professionals (Bieger and Laesser, 2004, Mansfeld, 1992).

Against this theoretical background, the present study has shown that prospective medical tourists tend to rely on information from professionals such as personal doctors and insurance companies. Nevertheless, although respondents considered information from induced image agents (marketing communication activities) to be neither important nor unimportant compared with information from autonomous image agents and organic image agents (both of which were considered to be quite important), *all* information sources were shown to correlate significantly with intention to visit Thailand.

In short, the present study has shown that it is not always appropriate to assume that higher risk and limited knowledge are always associated with greater external information search. The complexity of the issues associated with the choice of destination should also be taken into consideration. In terms of medical tourism, travellers tend to rely more on information from personal doctors and insurance companies, as well as marketing communication activities undertaken by prospective medical tourism destinations.

5.3.3 Evaluation of alternative destinations

The third theoretical implication derived from the present study concerns the evaluation of alternative medical tourism destinations. As previously noted, prospective tourists assess the utility of the attributes of alternative destinations on the basis of their consistency with the tourists' motivation to travel (Erasmus et al., 2001) (Erasmus et al., 2001, Purdue and Meng, 2006). In such evaluations, prospective tourists set 'decision rules', which can be either: (i) 'compensatory' (rules that allow 'trade offs' among destination attributes, such that tourists are willing to sacrifice a given attribute to benefit from other attributes); or (ii) 'non-compensatory' (rules that do not allow such 'trade-offs', such that a destination will be rejected if it fails to deliver the expected level of certain attributes) (Mansfeld, 1992).

Against this theoretical background, the present study has shown that prospective medical tourists considered quality of care, saving potential, hygiene issues, and issues related to safety and security to be quite important in choosing a destination. Quality of care, as the most important destination attribute, was the subject of a non-compensatory decision rule; that is, destinations that were perceived as failing to deliver care of an expected level (such as India) were rejected. However, in the case of intentions to visit Thailand, Malaysia, and Singapore, improving quality of care beyond the threshold level did not necessarily lead to greater appeal because other factors (such as saving potential) are also important to prospective tourists in choosing a destination.

Saving potential was found to be the second-most important destination attribute when choosing a medical tourism destination. However, this followed a compensatory decision rule. The positive correlation between saving potential and intention to visit Thailand suggests that medical tourists who place more importance on saving potential are more likely to choose to visit Thailand for medical tourism; in contrast, the negative correlation between saving potential and intention to visit Singapore suggests that price-sensitive medical tourists tend to avoid visiting Singapore for medical tourism. The present study has thus shown that medical tourists tend to choose one destination (and avoid another), depending on the importance that they attach to saving potential.

The present study has also identified other destination attributes that are indirectly related to the motivation of medical tourists—including hygiene issues and safety & security issues. These were, respectively, the third- and fourth-most important destination attributes when respondents were choosing a medical tourism destination. The study found significant correlations between intention to visit and perceived levels of hygiene in Thailand, Malaysia, and India. The findings demonstrate that prospective medical tourists find higher perceived levels of hygiene in prospective destinations more appealing. The insignificant correlation between the perceived level of hygiene in Singapore and intention to visit can be explained by Singapore's image of being more expensive than other destinations. With regard to safety and security, the study found significant correlations between these issues and intention to visit Thailand, Malaysia, Singapore, and India. The findings demonstrate that safer and more secure destinations are perceived as being more appealing by medical tourists.

5.4 Implications for practitioners

The findings of this study also have several implications for practitioners in promoting Thailand as a preferred medical tourism destination. These implications for practitioners are presented under two headings: (i) the use of information sources for communication; and (ii) leverage points for promotional message.

5.4.1 Use of information sources

As previously noted, the study found that medical tourists consider information from all types of image agents (induced, autonomous, and organic) to be important in choosing a medical tourism destination. Tourism promotion practitioners should therefore utilise both overt marketing communications and covert marketing communications to promote the country to prospective medical tourists.

Overt marketing communications, which include brochures and advertising campaigns undertaken by medical tourism authorities, were found to have a positive influence on intention to visit Thailand for medical tourism. The Tourism Authority of Thailand, the Department of Export Promotion, and the Ministry of Tourism and Sport should therefore utilise these types of marketing communication activities to promote Thailand as a medical tourism destination.

Covert marketing communication activities, which include news and documentaries, can also be utilised to create awareness and credibility of the country as a medical tourism destination; indeed, these types of information sources have been shown to enjoy high credibility among consumers (Tasci and Gartner, 2007). The study found that information from autonomous image agents correlated significantly with intention to visit Thailand. It is thus apparent that public relations and publicity about quality of care and saving potential can certainly help promote Thailand as a medical tourism destination.

The study also found that medical tourists with high perceptions of certain risks (functional, financial, health, and satisfaction) tend to rely more on information from

trustworthy social channels, such as insurance companies and personal doctors. This finding is in accordance with the view that relatively higher levels of trustworthiness and expertise are antecedents of information credibility (Belch and Belch, 2001). Medical tourism promotion practitioners should therefore target personal doctors and insurance companies to ensure that they have adequate knowledge and positive attitudes about Thailand as a medical tourism destination. Such information should focus on quality of care, saving potential, hygiene, and safety and security—which were shown to be the four most important destination attributes in choosing a medical tourism destination. Incentive schemes could also be devised to encourage insurance companies to recommend their patients/policy-holders to receive medical treatment in Thailand. Familiarisation trips for doctors, insurance companies, and media to visit Thailand could also be arranged. These trips could include visits to health-care providers of different price ranges, familiarisation with the qualifications of Thai medical staff, and enhanced awareness of the sophistication of Thai medical technologies, the quality of the medical service, the attractive price of medical care, the high level of hygiene, and the safety and security of the country as a whole.

The results of the study have also shown that the provision of a quality of care beyond the threshold level does not lead to a higher appeal. Because medical tourists place more importance on saving potential, they tend to choose to visit Thailand and avoid Singapore, which also has an image of providing high quality of care, hygiene, and safety. Practitioners should note that medical tourists are willing to sacrifice other destination attributes for greater saving potential, given an acceptable quality of medical care.

The study also found that images regarding hygiene and safety/security do positively influence visit intention, even though these destination attributes do not directly relate to medical service. Practitioners should therefore be aware that these factors do influence the image formation of medical tourism destinations.

5.4.2 Leverage points for promotional message

With regard to promotional messages, the study finds that medical tourism practitioners should concentrate on promoting the fact that Thailand provides a quality of care that is comparable with the acceptable standard in developed countries, while accentuating the

saving potential of medical-care services in Thailand. In addition, the promotional message should portray Thailand as a hygienic and safe country.

Because Thai health-care providers tend to utilise clinical excellence to compete with each other, and with health-care providers from other countries, enormous funds are routinely invested in the latest medical technologies and luxurious facilities. However, this inevitably adds costs and thus increases the price of medical treatment offered to medical tourists. Given that this study has found that medical tourists assess quality of care as a ‘non-compensatory’ decision rule while assessing saving potential as a ‘compensatory’ rule, it can be argued that the provision of a quality of medical care greater than the threshold standard is unlikely to increase the appeal of a destination; indeed, the study has shown that tourists find Thailand more appealing (and Singapore less appealing) because they place more importance on saving potential. Health-care providers should therefore seek a balance between improving the clinical excellence of their operations and offering greater saving potential to prospective medical tourists.

5.5 Limitations of the study and implications for future research

5.5.1 Limitations of the study

As with all research, this study has certain acknowledged limitations. These limitations can be summarised as follows;

- * The sampling frame was based on a database of prospective travellers made available through the Tourism Authority of Thailand. While accessing participants more directly through health-care providers may have been more desirable, this would have breached ethical and confidentiality protocols of their clients and therefore did not allow the researcher to gain direct access to their customer databases. Respondents were therefore reached indirectly through ‘gatekeepers’, who sent invitational message to potential respondents. It is therefore possible that many potential respondents might not have even opened the invitational messages sent by the gatekeepers.

- * Because the potential respondents included in this study were approached by gatekeepers who represented Thailand, it is likely that the respondents were more likely to be aware and familiar with Thailand as a medical tourism destination. Intention to visit and awareness might, therefore, have been biased.
- * Because there has been no quantitative research undertaken in the field of the decision-making processes of medical tourists, some of the measurement scales used in the present study were self-developed, based on non-research literature about medical tourism. It is therefore possible that the scales used in this study might not have covered all of the destination attributes that are important to prospective medical tourists.
- * Data collection for this study was undertaken in a three-month period before significant political turmoil occurred in Thailand (April 2009). This might have influenced Thailand's safety and security image, as well as the respondents' intention to visit the country. The research findings might thus not be fully applicable to the current situation in Thailand, where significant political unrest continues.

Despite these limitations, it is the contention of this study that the findings remain valuable for medical tourism promotion organisations and health-care providers in Thailand.

5.5.2 Implications for future research

The limitations and findings of the present study provide several implications of interest to future research in this area. The following suggestions for future research are made.

- Because each developed country has a different health-care system, separate studies of potential medical tourists from various countries should be conducted to establish research findings relevant to the effective marketing of medical tourism in various source markets.
- The dependent variable of this study was intention to visit, which was treated as a surrogate for actual choice behaviour. However, because intention might not be translated into actual action, a longitudinal experimental design could be

developed in which actual choice behaviour is observed. This would enable researchers to observe situational factors that might cause actual behaviour to deviate from intention.

- To gain a more comprehensive understanding of the image of Thailand as a medical tourism destination, further research is required with regard to all six of the destination attributes included in this study (quality of care, saving potential, tourism opportunity, accessibility, image regarding hygiene, and image regarding safety and security). In addition, the image of Thailand with regard to these factors should be compared against its competing medical tourism destinations.

5.6 Conclusion

This chapter has restated the research questions (and related hypotheses) of the study, and has summarised the findings with regard to each. In addition, the chapter has presented the theoretical and managerial implications of the findings of the study. Finally, the limitations of the study and the implications for future research have been discussed.

The study finds that medical tourists with lower levels of familiarity (with medical procedures and with Thailand as a medical tourism destination) tend to engage in greater external search behaviour by consulting brochures and advertising campaigns developed by medical tourism promoters. They also seek information from insurance companies and personal doctors.

Moreover, to evaluate alternative medical tourism destinations, the study finds that prospective medical tourists set certain ‘decision rules’. In this regard, quality of care is assessed on a ‘non-compensatory’ rule, which means that medical tourists avoid visiting destinations whose quality of care is lower than their threshold level. However, the provision of a higher quality of care than this threshold level does not significantly enhance the appeal of a destination. In contrast, saving potential is assessed by a ‘compensatory’ decision rule,

which means that medical tourists are willing to trade off certain other destination attributes for greater saving potential.

Despite their indirect relationship to medical tourism, images regarding hygiene and safety/security are also found to influence the desirability of a medical tourism destination.

In summary, the study has answered the substantive research question stated in Chapter 1, and has done so by testing the 12 hypothesised relationships of 13 variables, as stated in Chapter 3.

References

- AJZEN, I. (2001) Nature and Operation of Attitudes. *Annual Review of Psychology*, 52, 27-58.
- ALL AFRICA (2009) Medical Tourism Opening New Frontier. *All Africa*. 8 June 2009 ed. Kampala, All Africa.
- ANKOMAH, P. K., CROMPTON, J. L. & BAKER, D. (1996) Influence of cognitive distance in vacation choice. *Annals of Tourism Research*, 23, 138-150.
- ANONYMOUS (2009) The promise of medical tourism *Business Line*. Chennai.
- ARON, A. & ARON, E. N. (1997) *Statistics for the behavioural and social sciences: A Brief course*, New Jersey, Prentice Hall.
- AUSTRALIAN_RESEARCH_COUNCIL (2007) National Statement on Ethical Conduct in Human Research. IN GOVERNMENT, A. (Ed.). Canberra.
- AWADZI, W. & PANDA, D. (2005) Medical Tourism: Globalization and Marketing of Medical Services. *The Consortium Journal of Hospitality and Tourism*, 11, 75-80.
- AWARITEFE, O. D. (2004) Motivation and other Considerations in Tourist Destination choice: A Case Study of Nigeria. *Tourism Geographics*, 6, 303-330.
- BALOGLU, S. & BRINBERG, D. (1997) Affective Image of Tourism Destinations. *Journal of Travel Research*, 11-15.
- BALOGLU, S. & MCCLEARY, K. W. (1999) A Model of Destination Image Formation. *Annals of Tourism Research*, 26, 868-897.
- BALOGLU, S. & UYSAL, M. (1996) Market Segments of push and pull motivations: a canonical correlation approach. *International Journal of Contemporary Hospitality Management*, 8, 32-38.
- BEATTY, S. E. & SMITH, S. M. (1987) External Search Effort: An investigation Across Several Product Categories. *Journal of Consumer Research*, 14, 83-95.
- BEERLI, A. & MARTIN, J. D. (2004) Factors Influencing Destination Image. *Annals of Tourism Research*, 31, 657-681.
- BELCH, G. E. & BELCH, M. A. (2001) *Advertising and Promotion: An Integrated Marketing Communication Perspective*, Singapore, McGraw Hill Irwin.
- BELL, D. E. (1993) Risk Premiums for Design Regret. *Management Science*, 29, 1156-1166.
- BETTMAN, J. R. (1973) Perceived risk and its components: A model and empirical test. *Journal of Marketing Research*, 10, 184-189.
- BIEGER, T. & LAESSER, C. (2004) Information Source for Travel Decisions: Toward a source process model. *Journal of Travel Research*, 42, 357-371.
- BIEHAL, G. & CHAAKRAVARTI, D. (1986) Consumers' use of memory and external information in choice: macro and micro perspective. *Journal of Consumer Research*, 12, 382-405.
- BOJANIC, D. C. (1991) The use of advertising in managing destination image. *Tourism Management*, December 1991, 352-355.
- BOTHA, C., CROMPTON, J. L. & KIM, S.-S. (1999) Developing a revised competitive position for Sun/Lost City, South Africa. *Journal of Travel Research*, 37, 341-352.
- BOUMA, D. D. (2000) Ethics in Human Research. *The Research Process*. Oxford, Oxford University Press.
- BOUSH, D. M. & JONES, S. M. (2006) A Strategy-Based Framework for Extending Brand Image Research. IN R., K. L. & KIM, C. H. (Eds.) *Creating Images and Psychology of Marketing Communication*. New Jersey, Lawrence Erlbaum Associations. Inc.
- BRITTON, R. A. (1979) The image of the third world in tourism marketing. *Annals of Tourism Research*, July/Sept 1979, 318-329.
- BRYMAN, A. & DUNCAN, C. (2004) Constructing Variables. IN HARDY, M. & BRYMAN, A. (Eds.) *Handbook of Data Analysis*. First Edition ed. London, SAGE.
- BUSINESS LINE (2009) The promise of medical tourism *Business Line*. Chennai.
- BUSINESS LINE (THE HINDU) (2009) Outsourcing elderly care. *Business Line (The Hindu)*. 8 June 2009 ed., The Hindu Business Line.
- CABALLERO-DANELL, S. & MOUGOMBA, C. (2006) Medical Tourism and its Entrepreneurial Opportunities- A conceptual framework for entry into the industry. *Graduate Business School*. Goteborg Goteborg University.
- CABANOGLU, C., WARDE, B. & MOREO, P. J. (2001) A Comparison of mail, fax and web-based survey methods. *International Journal of Market Research*, 43, 441-452.
- CALLAGHAN, P. (1998) Social support and locus of control as correlates of UK nurses' health related behaviour. *Journal of Advanced Nursing*, 28, 1127-1133.
- CANADIAN INSTITUTE FOR HEALTH INFORMATION (2007) Healthcare System in Canada.

- CARTER, K. F. & KULBOK, P. A. (2002) Motivation for health behaviours; a systematic review of the nursing literature. *Journal of Advanced Nursing*, 40, 316-330.
- CHI, C. G.-Q. & QU, H. (2008) Examining the structural relationships of destination image, tourist satisfaction and destination loyalty: An integrated approach. *Tourism Management*, 29, 624-636.
- CHINAI, R. & GOSWAMI, R. (2007) Medical Visas mark growth for Indian medical tourism. *Bulletin of World Health Organization*. Mumbai.
- CHO, D.-S. & YONG, G.-S. (2006) Measuring the national image: The case of South Korea. IN PARK, C. W. (Ed.) *Creating Images and the psychology of marketing communication*. New Jersey, Lawrence Erlbaum Associates Inc.
- CHON, K.-S. (1990) The role of destination image in tourism: A review and discussion. *The Tourist Review*, 45, 2-9.
- CHON, K.-S. (1991) Tourism Destination Image Modification Process. *Tourism Management*, 68-72.
- CHOO, V. (2002) Southeast Asian countries vie with each other to woo foreign patients. *The Lancet*. Singapore.
- CHOW, C. (2009) Jetsetter Patients. *Silverkris: The travel magazine of Singapore Airlines*. Singapore, Singapore Airlines.
- CONNELL, J. (2006) Medical Tourism: Sea, Sun, Sand and ... surgery. *Tourism Management*, 27, 1093-1100.
- COSH, C. (1997) Health tourism takes shape. *Alberta Report/ News Magazine*. Alberta.
- CROMPTON, J. (1992) Structure of Vacation Destination Choice Sets. *Annals of Tourism Research*, 19, 420-434.
- CROMPTON, J. L. & ANKOMAH, P. K. (1993) Choice Set Propositions in Destination Decisions. *Annals of Tourism Research*, 20, 461-476.
- CROMPTON, J. L. & MCKAY, S. L. (1997) Motives of visitors attending festival events. *Annals of Tourism Research*, 24, 425-439.
- CROTTS, J. C. (2000) Consumer Decision Making and Pre-purchase information search. IN PIZAM, A. & MANSFELD, Y. (Eds.) *Consumer behaviour in Travel and Tourism*. First Edition ed. New York, The Howorth Hospitality Press.
- CROUCH, G. I. & LOUVIERE, J. J. (2001) A Review of Choice Modelling Research in Tourism, Hospitality and Leisure. IN MAZANEC, J. A., CROUCH, G. I., BRENT RICHIE, J. R. & WOODSIDE, A. G. (Eds.) *Consumer psychology of tourism, hospitality and leisure*. Wallingford, Cabi.
- CROUCH, G. I. & LOUVIERE, J. J. (2004) The Determinants of Convention Site Selection: A Logistic Choice Model from Exmerimental Data. *Journal of Travel Research*, 43, 118-130.
- DANN, G. M. S. (1981) Tourist Motivation: An Appriasal. *Annals of Tourism Research*, 8, 187-217.
- DAVIDSON, M., MANNING, M. L., BROSNAN, P. & TIMO, N. (2002) Organizational climate, perceived customer satisfaction, and revenue per available room in four-and-five star Australian hotels. *Tourism Analysis*, 6, 123-137.
- DAVIS, D. (2005) *Business Research: For Decision Making* United States of America, Thompson South Western.
- DE CHERNATONY, L. & DALL' OLMO REILEY, F. (1999) Experts' View About Defining Service Brands and the Principles of Service Branding. *Journal of Business Research*, 46, 181-192.
- DE VAUS, D. A. (1995) *Survey in Social Research*, St. Leonards, Allen and Unwin.
- DECROP, A. (2000) Tourists' decision making and behavior processes. IN PIZAM, A. & MANSFELD, Y. (Eds.) *Consumer Behaviour in Travel and Tourism*. First Edition ed. New York, The Howorth Hospitality Press.
- DELINSKY, S. S. (2005) Cosmetic Surgery: A Common and Accepted from Self-Improvement. *Journal of Applied Social Psychology*, 35, 2012-2028.
- DELOITTE (2008) Explosive Growth in Medical Tourism and Rise of Retail Clinics Provide Huge Cost Savings for Patients. *PharmacoEconomics and Outcomes News* 559 ed.
- DEPARTMENT OF EXPORT PROMOTION (JAKARTA OFFICE) (2007) Marketing Insights about Healthcare Services in Indonesia. IN PROMOTION, D. O. E. (Ed.). Bangkok.
- DEPARTMENT OF EXPORT PROMOTION (MANILA OFFICE) (2008) Helathcare Industry in Taiwan. IN PROMOTION, D. O. E. (Ed.). Bangkok.
- DHOLAKIA, U. M. (2000) A motivational process model of product involvement and consumer risk perception. *Eurpoean Journal of Marketing*, 35, 1340-1360.
- ECHTNER, C. M. & RITCHIE, B. J. R. (1993) The Meaning and Measurement of Destination image. *The Journal of Tourism Studies*, 14, 37-48.
- ERASMUS, A. C., BOSHOFF, E. & ROUSSEAU, G. (2001) Consumer decision-making models within the discipline of consumer science: a critical approach. *Journal of Family Ecology and Consumer Sciences*, 29, 82-90.

- ESTERBY, M., THORPE, R. & LOWE, A. (1991) The Philosophy of Research Design. *Management Research: An Introduction*. London, Sage.
- FAKEYE, P. C. & CROMPTON, J. L. (1991) Image Differences between Prospective, First-Time, and Repeat Visitors to the Lower Rio Grande Valley. *Journal of Travel Research*, 30, 3-23.
- FISCHHOFF, B., DE BRUIN, W. B., PERRIN, W. & DOWNS, J. (2004) Travel risks in a time of terror: judgements and choices. *Risk Analysis*, 24, 1301-1309.
- FLETCHER, R. & BROWN, L. (2002) *International Marketing*, Frenchs Forest, NSW, Prentice Hall.
- FODNESS, D. (1994) Measuring Tourist Motivation. *Annals of Tourism Research*, 21, 555-581.
- FODNESS, D. & MURRAY, B. (1997) Tourist information search. *Annals of Tourism Research*, 24, 503-523.
- FOLEY, A. & FAHY, J. (2004) Incongruity between expression and experience: The role of imagery in supporting the positioning of a tourism destination brand. *Brand Management*, 11, 209-217.
- FOX, J. (1997) *Applied regression analysis, linear models, and related methods*, New Delhi, Sage Publication.
- FRIEDRICHS, J. & OPP, K.-D. (2002) Rational Behaviour in Everyday Situation. *European Sociological Review*, 18, 401-415.
- FUTURE_BRAND_INDEX (2007) Country Brand Index: Insight, Finding and Country Ranking.
- GALLARZA, M. G., SAURA, I. G. & GARCIA, H. C. (2002) Destination Image: Towards a conceptual framework. *Annals of Tourism Research*, 29, 56-78.
- GARCIA-ALTES, A. (2004) The Development of Health Tourism Services. *Annals of Tourism Research*, 32, 262-266.
- GARTNER, W. C. (1993) Image Formation Process. *Journal of Travel and Tourism Marketing*, 2, 191-215.
- GIBSON, H. J., QI, C. X. & ZHANG, J. J. (2008) Destination Image and Intent to Visit China and the 2008 Beijing Olympic Games *Journal of Sport Management* 22, 427-450.
- GNOTH, J. (1997) Tourism motivation and expectation formation. *Annals of Tourism Research*, 24, 283-304.
- GNOTH, J., BALOGLU, S., EKINCI, Y. & SIRAKAYA-TURK, E. (2007) Special Issue: Building destination brands. *Tourism Analysis*, 12, 339-483.
- GOODRICH, J. N. (1994) Health Tourism" A new positioning strategy of tourist destinations". *Journal of International Consumer Marketing*, 6, 227-238.
- GOSENS, C. (2000) Tourism information and pleasure motivation. *Annals of Tourism Research*, 27, 301-321.
- GOULDING, C. & SHANKAR, A. (2004) Age is just a number: Rave Culture and the cognitively young "thirty something". *European Journal of Marketing*, 38, 641-658.
- GUBA, E. G. & LINCOLN, Y. S. (1991) What is the constructivist paradigm? *Knowledge for Policy: Improving Education through Research*. London, Falmer Press.
- GURSOY, D. (2003) Prior Product Knowledge and Its Influence on the Traveler's Information Search Behaviour. *Journal of Hospitality and Marketing* 10, 113-128.
- GURSOY, D. & MCCLEARY, K. W. (2004) An integrative model of tourist information search behaviour. *Annals of Tourism Research*, 31, 353-373.
- HAIR, J. F., ANDERSON, R. E., TATHAM, R. L. & BLACK, W. C. (1998) *Multivariate Data Analysis*, New Jersey, Prentice Hall.
- HANKINSON, G. (2004) Relational network brands: towards a conceptual model of place brands. *Journal of Vacation Marketing*, 10, 109-121.
- HANKINSON, G. (2005) Destination brand images: a business tourism perspective. *Journal of Services Marketing*, 19, 24-32.
- HANLAN, J., FULLER, D. & WILDE, S. (2006) Destination Decision Making: The Need for a Strategic Planning and Management Approach. *Tourism and Hospitality Planning and Development*, 3, 209-227.
- HARRYONO, M., HUANG, Y.-F., MIYAZAWA, K. & SETHAPUT, V. (2006) Thailand Medical Tourism Cluster. *Microeconomic of Competitiveness*. Boston, Harvard Business School.
- HAWKIN, D. I., BEST, R. J. & CONEY, K. A. (2001) *Consumer Behavior: Building Marketing Strategy*, Singapore, McGraw Hill.
- HEALY, S. (2008) Youngsters in a B-line for Botox. *The Sunday Mail*. Gold Coast, Australia.
- HENKEL, R., HENKEL, P., ARGRUSA, W., AGRUSA, J. & TANNER, J. (2006) Thailand as a Tourist Destination: Perception of International Visitors and Thai Residents. *Asia Pacific Journal of Tourism Research*, 11, 269-287.
- HENSHER, D., LOUVIERE, J. & SWAIT, J. (1999) Combining Sources of preference data. *Journal of Econometrics*, 89, 197-221.
- HONG, S.-K., KIM, J.-H., JANG, H. & LEE, S. (2006) The roles of categorization, affective image and constraints on destination choice: An application of NMNL model. *Tourism Management*, 27, 750-761.
- HOSANY, S., EKINCI, Y. & UYSAL, M. (2007) Destination Image and Destination Personality. *International Journal of Culture, Tourism, and Hospitality Research*, 1, 62-68.

- HUDSON, S. (1999) Consumer Behaviour Related to Tourism. IN PIZAM, A. & MANSFELD, Y. (Eds.) *Consumer behavior in tourism*. New York, The Howorth Hospitality Press.
- HUYBERS, T. (2005) Destination Choice Modelling: What's in a name. *Tourism Economics*, 11, 329-350.
- HYDE, K. F. (2008) Information processing and touring planning theory. *Annals of Tourism Research*, 35, 712-731.
- IBRAHIM, E. & GILL, J. (2005) A positioning strategy for a tourist destination, based on analysis of customers' perception and satisfaction. *Marketing intelligence and planning*, 23, 172-188.
- JANG, S. S. & CAI, L. A. (2002) Travel Motivations and Destination Choice: A Study of British Outbound Market. *Journal of Travel and Tourism Research*, 13, 111-133.
- JONES, C. A. & KEITH, L. G. (2006) Medical Tourism and Reproductive Outsourcing: The Dawning of New Paradigm for Healthcare. *International Journal of Fertility*, 51, 251-255.
- KIM, S. & YOON, Y. (2003) The hierarchical effects of affective and cognitive components on tourism destination image. *Journal of Travel & Tourism Marketing*, 14, 1-22
- KLENOSKY, D. B. (2002) The "Pull" of Tourism Destinations: A Means End Investigation. *Journal of Travel Research* 40, 385-395.
- KOREA HEALTH INDUSTRY DEVELOPMENT INSTITUTE (2007) Current Status of Korean Health Industry and Introduction of Overseas Projects. Soeul, South Korea, Korea Health Industry Development Institute.
- KOTLER, P. & GARTNER, D. (2004) Country as brand, product and beyond: a place marketing and brand management perspective. IN MORGAN, N., PRICHARD, A. & PRIDE, R. (Eds.) *Destination Branding: Creating the Unique Destination Proposition*. Second ed. Oxford, Elsevier Butterworth-Heinemann.
- KOTLER, P. & KELLER, K. L. (2006) *Marketing Management*, Singapore, Pearson Prentice Hall.
- KOZAK, N. (2007) External Information Search Behaviour of Visitors to Turkey. *International Journal of Hospitality and Tourism Administration*, 8, 17-33.
- LARSEN, G. & GEORGE, V. (2006) The Social Construction of Destination Image: A New Zealand Film Example. IN KEITH, L. G. & KIM, C. H. (Eds.) *Creating Images and the Psychology of Marketing Communication*. New Jersey, Lawrence Erlbaum Associates Inc. .
- LAWSON, R. & THYNE, M. (2001) Destination avoidance and inept destination sets. *Journal of Vacation Marketing*, 7, 199-208.
- LEE, G., O'LEARY, J. T. & HONG, G. S. (2002) Visiting Propensity Predicted by Destination Image: German Long-Jaul Pleasure Travelers to the U.S. *International Journal of Hospitality and Tourism Administration*, 3, 63-92.
- LEE, H. (1990) *Critical Social Research*, London, Unwin Hyman.
- LEISEN, B. (2001) Image segmentation: the case of tourism destination. *Journal of Services Marketing*, 15, 49-66.
- LEVIN, R. I. & RUBIN, D. S. (1991) *Statistics for Management: International Edition*, New Jersey, Prentice Hall.
- LIN, C.-H., MORAIS, D. B., KERSTETTER, D. L. & HOU, J.-S. (2007) Examining the role of cognitive and affective image in predicting choice across natural developed, and theme-park destinations. *Journal of Travel Research*, 46, 183-194.
- LIND, D. A. & MASON, R. D. (1997) *Basic Statistics for Business and Economics*, Boston, IRWIN.
- LOVELOCK, C. H., PATTERSON, P. G. & WALKER, R. H. (2001) *Service Marketing: An Asia Pacific Perspective*, Sydney, Prentice Hall.
- M2PRESSWIRE (2008) Asian Medical Tourism Analysis (2008-2012). *M2 Presswire*. 21 September 2008 ed., M2 Communications.
- MACKAY, K. J. & FESENMAIER, D. R. (1997) Pictorial element of destination in image formation. *Annals of Tourism Research*, 24, 537-565.
- MACREADY, N. (2007) Developing countries court medical tourists. *The Lancet*. Singapore.
- MAHOLTRA, N. K. (1999) *Marketing Research: An Applied Orientation*, Singapore, PHIPE Prentice Hall.
- MANNING, M. & MUNRO, D. (2007) *Survey Researcher's SPSS Cookbook*, Australia, Pearson Education Australia.
- MANSFELD, Y. (1992) From Motivation to Actual Travel. *Annals of Tourism Research*, 19, 399-419.
- MARLOWE, J. & SULLIVAN, P. (2007) Medical Tourism: The Ultimate Outsourcing. *HR Human Resource Planning*, 30, 8-10.
- MCCABE, A. S. (2000) Tourism Motivation Process. *Annals of Tourism Research*, 27, 1049-1052.
- MCDOWALL, A. (2006) Cutting edge. *MEED: Middle East Economic Digest*. IRAN, Middle East Economic Digest.
- MCMUARRAY, D. W. (2005) *Critical Theory*. Lisemore, New South Wales, Southern Cross University.

- MCMUARRAY, D. W. (2007) MNG03047: Qualitative Research Methods, Study Guide. IN UNIVERSITY, D. S. O. S. C. (Ed.). Lismore.
- MILLMAN, A. & PIZAM, A. (1995) The role of awareness and familiarity with a destination: The central Florida case. *Journal of Travel Research*, 33, 21-27.
- MITCHELL, V.-W. (1999) Consumer perceived risk: conceptualisations and models. *European Journal of Marketing*, 33, 163-195.
- MOLINA, A. & ESTEBAM, A. (2006) Tourism Brochures: Usefulness and Image. *Annals of Tourism Research*, 33, 1036-1056.
- MONETARY POLICY GROUP, B. O. T. (2009) Thailand's economic and monetary conditions in 2008. IN THAILAND, B. O. (Ed.). Bangkok, Bank of Thailand.
- MOODY, M. J. (2007) Medical Tourism. *Rough Notes, Dow Jones*. New York, The Rough Notes Company.
- MOSHIN, A. & RYAN, C. (2004) Determinants of Destination Choice: The Role of Socio-Demographic Variables. *Tourism Recreation Research*, 29, 27-33.
- MOSHKI, M., GHOFRANIPOUR, F., HAJIZADEH, E. & AZADFALLAH, P. (2007) Validity and reliability of the multidimensional health locus of control scale for college students. *BMC Public Health*.
- MOUTINHO, L. (1987) Consumer Behaviour in Tourism. *European Journal of Marketing*, 21, 5-43.
- NA, W., SON, Y., KIM, C. H. & MARSHALL, R. (2006) Building a National Image with words: The role of word of mouth in establishing Korea's international image. IN KEITH, L. G. & KIM, C. H. (Eds.) *Creating Images and the psychology of marketing communication*. New Jersey, Lawrence Erlbaum Associates.
- NETER, J., WASSERMAN, W. & WHITMORE, G. A. (1998) *Applied Statistics*, Newton, Allyn and Bacon.
- NEUMAN, W. L. (2006a) Dimension of Research. *Social Research Methods: Qualitative and Quantitative Approaches*. 6th International Edition ed. United States of America, Pearson.
- NEUMAN, W. L. (2006b) *Social Research Methods*, Boston, Pearson.
- NG, S. I., LEE, J. A. & SOUTAR, G. N. (2007) Tourists' intention to visit a country: The impact of cultural distance. *Tourism Management*, 28, 1497-1506.
- NORRA, M. (2007) Developing countries court medical tourists. *The Lancet*, 369, 1849.
- OFFICE OF THE ECONOMIC AND SOCIAL DEVELOPMENT BOARD (2006) Strategic economic structural reform to improve national competitiveness *Strategic Economic Structural Reform to Improve Thailand's Competitiveness*. Prince Palace Hotel, Bangkok.
- OFFICE OF TOURISM DEVELOPMENT (2009) Summary of Revenue and Balance of Tourism Trade 2007. IN SPORT, M. O. T. A. (Ed.). Bangkok, Tourism Authority of Thailand.
- PADGETT, D. & ALLEN, D. (1997) Communicating Experiences: A narrative approach to creating service brand image. *Journal of Advertising*, 26, 49-62.
- PEDERSEN, A. (2007) Medical Tourism: Newly "flat" healthcare world challenges increasingly costly, opaque U.S. system. *Biomedical Business & Technology*. New York, Information Access Company.
- PEOPLE PULSE (2010) Survey Response Rates. *How to increase your survey response rate*. Sydney.
- PERCIVAL, C. M. & BRIDGES, J. F. (2006) Globalization and healthcare: understanding health and medical tourism *Expert Review of Pharmacoeconomics and Outcomes Research* 6, 447-454.
- PHELPS, A. (1986) Holiday destination image- the problem of assessment: An example developed in Menorca. *Tourism Management*, September 1986, 168-180.
- PHILIPS, W. & JANG, S. S. (2007) Destination image and Visit Intention: Examining the moderating role of motivation. *Tourism Analysis*, 12, 319-326.
- PIKE, S. (2005) Tourism destination branding complexity. *Journal of Product & Brand Management*, 14, 258-259.
- PLOG, S. C. (1974) Why destination areas and fall in popularity. *Cornell Hotel and Restaurant Administration Quarterly*, 14, 55-60.
- PRENTICE, R. (2006) Evocation and experiential seduction: Updating choice sets modelling. *Tourism Management*, 27, 1153-1170.
- PUNJ, G. & SRINIVASAN, N. (1989) Influence of Expertise and Purchase Experience on the Formation of Evoked Sets. *Advances in Consumer Research*, 16, 507-514.
- PURDUE, R. R. (2000) Destination Images and Consumer Confidence in Destination Attribute Ratings. *Tourism Analysis*, 5, 77-81.
- PURDUE, R. R. & MENG, F. (2006) Understanding choice and rejection in destination consideration sets. *Tourism Analysis*, 11, 337-348.
- RADISIC, B. B. & MIHELIC, B. (2006) The tourist destination brand. *Tourism and Hospitality Management*, 12, 183-189.
- RAMIREZ DE ARELLANO, A. B. (2007) Patients without borders: The emergence of medical tourism. *International journal of Health Services*, 37, 193-198.

- REYNOLD, W. H. (1965) The Role of Consumer in Image Building. *California Management Review*, 1965, 69-76.
- RITTICHAINUWAT, B. N., QU, H. & BROWN, T. J. (2001) Thailand's International Travel Image: Mostly Favourable. *Cornell Hotel and Restaurant Administration Quarterly*, 42, 82-95.
- ROSE, D. & SULLIVAN, O. (1993) *Introducing data analysis for social scientists*, Philadelphia, Open University Press.
- SANDY, R. (1990) *Statistics: For business and economics*, New York, McGraw Hill.
- SCANLAN, L. (2002) International marketing of services through franchising: an in-depth investigation. *Graduate College of Management*. Lismore, Southern Cross University.
- SCHWENK, C. R. (1984) Cognitive Simplification Process in Strategic Decision Making. *Strategic Management Journal*, 5, 111-128.
- SEDDIGHI, H. R. & THEOCHAROUS, A. L. (2002) A model of tourism destination choice: a theoretical and empirical analysis. *Tourism Management*, 23, 475-487.
- SEKARAN, U. (2000) Scientific Investigation. *Research Methods for Business: A Skill Building Approach*. New York, John Wiley & Sons.
- SERVICE PROMOTION DEPARTMENT, T. A. O. T. (2007) Development and Promotional Strategies in Thai Health Tourism. Bangkok, Thailand, Tourism Authority of Thailand.
- SHETH, J. N., BANWARI, M. & NEWMAN, B. I. (1999) *Consumer Behaviour: Consumer Behaviour and Beyond*, Sydney, The Dryden Place.
- SIRAKAYA, E., SHEPPARD, A. G. & MCLELLAN, R. W. (1997) Assessment of the Relationship Between Perceived Safety At a Vacation Site and Destination Choice Decisions: Extending the Behavioural Decision-Making Model. *Journal of Hospitality and Tourism Research*, 21, 1.
- SIRAKAYA, E. & WOODSIDE, A. G. (2005) Building and testing theories of decision making by travellers. *Tourism Management*, 26, 815-832.
- SIRGY, M. J. & SU, C. (2000) Destination image: self-congruity, and travel behaviour: toward an integrative model. *Journal of Travel Research*, 38, 340-352.
- SIRIKAYA, E. & WOODSIDE, A. G. (2005) Building and testing theories of decision making by travellers. *Tourism Management*, 26, 815-832.
- SMITH, P. C. & FORGIONE, D. A. (2007) Global Outsourcing of Healthcare: A Medical Tourism Decision Model. *Journal of Information Technology Case & Application Research*, 9, 19-30.
- SONMEZ, S. F. & GRAEFE, A. R. (1998) Determining Future Travel Behaviour from past experience and perception of risk and safety. *Journal of Travel Research*, 37, 171-178.
- SONMEZ, S. F. & SIRIKAYA, E. (2002) A Distorted Destination Image? The Case of Turkey. *Journal of Travel Research*, 41, 185-196.
- STRATEGIC AND MARKETING MAGAZINE (2007) Revolutionized Healthcare. *Strategic and Marketing*. 68 ed., Esquire Magazine (Thailand) Co., Ltd.
- SWARBROOKE, J. & HORNER, S. (2007) *Consumer behaviour in tourism*, Singapore, Butterworth-Heinemann.
- SWARBROOKE, J. & HORNER, S. (1999) *Consumer Behaviour in Tourism*, Oxford, Butterworth-Heinemann.
- TABACHNICK, B. G. & FIDELL, L. S. (1996) *Using Multivariate Statistics*, California, Harper Collins: Northbridge.
- TASCI, A. D. A. (2006) Visit impact on destination image. *Tourism Analysis*, 11, 297-309.
- TASCI, A. D. A. & GARTNER, W. C. (2007) Destination Image and Its Functional Relationship. *Journal of Travel Research*, 45, 413-425.
- TASCI, A. D. A. & KOZAK, M. (2006) Destination brands vs destination images: Do you know what we mean? *Journal of Vacation Marketing*, 12, 299-317.
- THAI NEWS SERVICES (2009) Thailand to benefit from Asean-South Korea FTA. *Thai News Service*. 8 June 2009 ed., Thai News Services.
- TOURISM AUTHORITY OF THAILAND (2008) Tourism Statistics
- TURLEY, L. W. & LEBLANC, R. P. (1995) Evoked Sets: A Dynamic Process Model. *Journal of Marketing Theory and Practice*, Spring 1995.
- UM, S. & CROMPTON, J. L. (1990) Attitude Determinants In Tourism Destination Choice. *Annals of Tourism Research*, 17, 432-448.
- VADANABHA, P. (2007) Medical Hub and Center of Medical Tourism: Opportunities, success factors and impacts on Thai economy. *National Defence Program*. Bangkok, National Defence College of Thailand.
- VAN MIDDELKOOP, M., BORGERS, A. & TIMMERMANS, H. (2003) Inducing Heuristic Principles of Tourist Choice of Travel Mode: A Rule-Based Approach. *Journal of Travel Research*, 42, 75-83.

- VANICHBANCHA, K. (2006) *SPSS for Windows: For Window Analysis*, Bangkok, Dhamasara.
- WALKER, J. & BEN-AKIWA, M. (2002) Generalized Random Utility Model. *Mathematical Social Sciences*, 43, 303-343.
- WALLSTON, K. A., STEIN, M. J. & SMITH, C. A. (1994) Form C of the MHLC scales: A Condition specific measures of locus of control. *Journal of personality assessment*, 63, 534-553.
- WALMSLEY, D. J. & YOUNG, J. (1998) Evaluative images and tourism: the use of personal constructs to describe the structure of destination images. *Journal of Travel Research*, 36, 65-69.
- WANGPAICHITR, S., JOTIKASTHIRA, N., ATCHARIYAPOTHA, P., SHOOWONG, D., TRIAMNAK, S., WEERAWAT, L. & SAOWALEE, T. (2007) Sustainable Tourism Development of Phuket and Andaman Cluster. Bangkok, Rangsit University and Phuket Provincial Administration Organization.
- WANGPAICHITR, S., NGERNYUANG, T., PROHSOONTHORN, N., TO-ON, S., SATTAYAWATTANA, C., MANEEROJ, P. & CHANPAYOM, B. (2004) Thailand Tourism System. Bangkok, Rangsit University.
- WEAVER, C. (2008) Boom times for Asia plastic surgery trips. *The Sunday Mail*. Gold Coast, Australia.
- WHITE, C. (2005) Destination Image: To see or not to see? Part II. *International Journal of Contemporary Hospitality Management*, 17, 191-196.
- WIRTZ, J. & MATTILA, A. S. (2003) The effects of consumer expertise on evoked set size and service loyalty. *Journal of Service Marketing*, 17, 649-665.
- WOODSIDE, A. G. & LYSONSKI, S. (1989) A General Model of Traveler Destination Choice. *Journal of Travel Research*, 27, 8-14.
- WOODSIDE, A. G. & SHERRELL, D. (1977) Traveler Evoked, Inept, Inert Sets of Vacation Destinations. *Journal of Travel Research*, 16, 14-18.
- YORK, D. (2008) Medical tourism: the trend toward outsourcing medical procedures to foreign countries. *The Journal Of Continuing Education In The Health Professions*, 28, 99-102.
- ZAICHKOWSKY, J. L. (1985) Measuring the Involvement Construct. *Journal of Consumer Research*, 12, 341-343.
- ZEITHAML, V., BITNER, M. J. & GREMLER, D. D. (2006) *Service Marketing: Integrating Customer Focus Across the Firm*, Singapore, McGraw Hill.
- ZIKMUND, W. G. (2003) *Business Research Methods*, Ohio, South Western Thompson.

Appendix 1: Information sheet and survey questionnaire
SOUTHERN CROSS UNIVERSITY
INFORMATION SHEET

Salient Factors Influencing Medical Tourism Destination Choice

You are invited to participate in a study focusing on the destination choice decision of prospective medical tourists. This research forms a part of a Doctor of Business Administration being conducted by Nuttapon Jotikasthira, the candidate, and Dr. Carmen Cox, the supervisor.

As the medical bills in developed countries are very high and the healthcare system is very expensive resulting in a very long waiting time to receive a desired medical treatment, many people, therefore, seek opportunities for compatible quality of medical treatments at a much lower cost than in other countries. Medical tourism is therefore on the rise. At present, many countries strive to pursue the medical tourism market. However, no study has been conducted to explore factors that influence the destination choice process of prospective medical tourists. As a result, the survey aims to uncover factors that influence the destination choice process of prospective medical tourists with the aim to assist decision making of healthcare providers and medical tourism destinations

Procedures to be followed

It only takes 10-15 minutes to complete this survey. The survey mainly comprises of questions about your attitudes, opinions regarding health behaviour and medical tourism. The survey also comprises some general information questions which will not personally identify you in any way. You are asked to complete the online survey by clicking on the following weblink http://www.surveymonkey.com/s.aspx?sm=1YGepKhIeU4vCGc_2fEnLUTQ_3d_3d and completing the questions asked online.

Alternatively, If you prefer, you can complete a hard copy version of the written survey which is available at travel agencies specialising in medical tourism and sales representative offices of Thai healthcare providers which is of the same content as the online survey. If completing the written response, kindly put the completed questionnaires in the reply paid postage envelope provided and mail back to your local Tourism Authority of Thailand office where you collected the survey from.

Participation is purely voluntary and no financial remuneration or incentive will be offered for taking part in this research. There are no travel expenses nor are there any costs associated with participation in this research. There is no cost to you apart from your time.

Possible Discomforts and Risks

There are no foreseeable risks or discomforts above those associated with general computer usage. You will be required to sit and concentrate on a computer screen, so if you have eyesight problems you will be required to provide your own glasses to complete the survey.

Responsibilities of the Researcher

It is our duty to make sure that any information given by you is protected. The questions included in the survey do not request any personal information that could identify you on any way. By agreeing to complete the survey, your informed consent is assumed. However, you are free to withdraw from completing the survey at anytime.

After the research is complete, the results of the research will be available at the library of Southern Cross University at Tweed Gold Coast Campus.

Responsibilities of the Participant

Please respond to all questions contained in the survey as honestly as you can. There are no right or wrong answers. You may leave the survey questionnaire voluntarily without explanation of such factors.

Freedom of Consent

If you decide to participate, you are free to withdraw your consent and to discontinue participation at any time.

Inquiries

This form is yours to keep for future reference. If you have any questions, we expect you to ask us. If you have any additional questions at any time please ask:

Researcher

Nuttapong Jotikasthira

Graduate College of Management
Southern Cross University
PO Box 42
Tweed Heads NSW 2485

Email: n.jotikasthira.10@scu.edu.au

Phone: 04-01-633-901

Supervisor

Dr. Carmen Cox

Graduate College of Management
Southern Cross University
PO Box 42
Tweed Heads NSW 2485

Email: carmen.cox@scu.edu.au

Phone:

The ethical aspects of this study have been approved by the Southern Cross University Human Research Ethics Committee. The Approval Number is ECN-08-080. If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Committee through the Ethics Complaints Officer:

Ms Sue White

Ethics Complaints Officer and Secretary

HREC

Southern Cross University

PO Box 42

Tweed Heads, NSW, 2485

Telephone (07) 55069303 or fax (07) 5506 9202

Email: sue.white@scu.edu.au

All complaints, in the first instance, should be in writing to the above address. All complaints are investigated fully and according to due process under the National Statement and this University. Any complaint you make will be treated in confidence and you will be informed of the outcome.

Factors Influencing Medical Tourism Destination Choice

Part One: Attitudes towards health

1. For what reasons are you interested in travelling abroad for medical treatments? (Please tick all that apply)

<input type="checkbox"/>	A. To cure an illness	<input type="checkbox"/>	B. To improve my health
<input type="checkbox"/>	C. For cosmetic surgery	<input type="checkbox"/>	D. To have a medical check up
<input type="checkbox"/>		<input type="checkbox"/>	E. I would not consider travelling abroad for medical reasons

(Please go to Question 4)

2. Is such a treatment available in your country of residence?

<input type="checkbox"/>	A. Yes
<input type="checkbox"/>	B. No
<input type="checkbox"/>	C. Don't know

3. Is that particular treatment covered by your current health plan?

<input type="checkbox"/>	A. Yes- Fully covered
<input type="checkbox"/>	B. Yes- Partially covered
<input type="checkbox"/>	C. No-Not covered

4. Please indicate your level of agreement with the following statements on the 7 point scale provided.

Statements	Strongly disagree	Disagree	Tend to disagree	Neither Agree nor disagree	Tend to Agree	Agree	Strongly Agree
I can have better health by engaging in healthier behaviour	1	2	3	4	5	6	7
My imperfect health condition happened to me by chance	1	2	3	4	5	6	7
If I have regular medical check-ups, I am less likely to have any health problems	1	2	3	4	5	6	7
Whether I have good or bad health, it is my own responsibility	1	2	3	4	5	6	7
If I am to have better health, it is a matter of luck	1	2	3	4	5	6	7
Strict following of doctor's advice is the best way to keep myself healthy	1	2	3	4	5	6	7
My current health condition is a result of the choices I make in life	1	2	3	4	5	6	7

I have full control of how my health can be improved	1	2	3	4	5	6	7
I am destined to have the health problems which I currently suffer from	1	2	3	4	5	6	7
Other people play a big role in my health condition	1	2	3	4	5	6	7
My current health condition is a result of my own unhealthy behaviour	1	2	3	4	5	6	7
I deserve credit if my health gets better and blame if it gets worse	1	2	3	4	5	6	7
The type of support I receive from other people determines how healthy I am	1	2	3	4	5	6	7
It is no ones fault that I have my current health problem	1	2	3	4	5	6	7
Regarding my health, I should only do what my doctors tell me to do	1	2	3	4	5	6	7
If I choose to live a healthier life, I should get healthier	1	2	3	4	5	6	7
Health professionals are responsible for my health condition	1	2	3	4	5	6	7
I am fully responsible for what happens in my life	1	2	3	4	5	6	7

5. Please indicate your level of agreement to the following statements on the 7 point scale provided.

Statements	Strongly disagree	Disagree	Tend to disagree	Neither Agree nor disagree	Tend to Agree	Agree	Strongly Agree
The cost of medical treatments in my home country is very high	1	2	3	4	5	6	7
I might get myself into financial difficulty if I have to pay for my desired medical treatment in my home country	1	2	3	4	5	6	7
My healthcare plan does not cover all treatments I need	1	2	3	4	5	6	7
I have to spend a fortune to receive certain treatments in my home country	1	2	3	4	5	6	7
Even for a serious illness, if I choose to receive certain treatments, I have to partially pay for such treatments at home	1	2	3	4	5	6	7
Even if a treatment is fully covered by my health plan, I must wait a long time to receive that treatment in my home country	1	2	3	4	5	6	7
Until I can receive the treatment, my health condition will get much worse	1	2	3	4	5	6	7

There is a lot of paper work to be done and the system functions too slowly in my home country	1	2	3	4	5	6	7
The healthcare system in my country requires me to take too many steps in order to receive the medical treatment I need	1	2	3	4	5	6	7

6. Please select an appropriate response to the following question:

	Not interested	Uninterested	Somewhat uninterested	Indifferent	Somewhat interested	Interested	Very interested
How interested are you in receiving medical treatment in an overseas country?	1	2	3	4	5	6	7

Part Two: Information Search Behaviour

7. Please indicate your level of familiarity with the following:

Statements	Very unfamiliar	Quite unfamiliar	A bit unfamiliar	Unsure	A bit familiar	Quite familiar	Very familiar
How familiar do you consider yourself to be with the procedures involved with your desired medical treatment?	1	2	3	4	5	6	7
How familiar do you consider yourself to be with Thailand as a medical tourism destination?	1	2	3	4	5	6	7

8. Please indicate how important each of the following risks are to you when making your decisions about overseas travel for a medical treatment:

Statements	Not at all important	Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important	Extremely important
Possibility that the desired medical treatment does not turn out as expected	1	2	3	4	5	6	7
Possibility that the overall cost (treatments and other expenses) will not provide a large savings potential	1	2	3	4	5	6	7
Possibility that my health condition will get worse due to travel to a foreign country	1	2	3	4	5	6	7

Possibility of physical danger or injury due to accidents	1	2	3	4	5	6	7
Possibility that the medical treatment will not provide a satisfactory outcome	1	2	3	4	5	6	7
Possibility that travelling overseas for medical treatments does not match my self image	1	2	3	4	5	6	7
Possibility of becoming involved in political turmoil during my stay in that country	1	2	3	4	5	6	7
Possibility that my choice of destination will affect other people 's opinion of me	1	2	3	4	5	6	7
Possibility that travelling abroad for medical treatments will take much longer than I expect	1	2	3	4	5	6	7

9. Given your current knowledge about the procedures involved in your desired medical treatment, do you think you can confidently choose a destination and health care provider to supply the required experience?

Yes No Not sure

10. Please rate your attitude towards the importance of information from the following sources when deciding what country you will travel to for medical treatments :

Statements	Not at all important	Very Unimportant	Unimportant	Neither important	Important	Very Important	Extremely
Brochures from potential destinations' tourism authorities about medical tourism	1	2	3	4	5	6	7
Brochures from medical care providers (e.g. hospital) of potential destinations	1	2	3	4	5	6	7
Advertising campaigns developed by destinations about medical tourism	1	2	3	4	5	6	7
Personal selling by staff of travel agencies specialising in medical tourism	1	2	3	4	5	6	7
Information from health insurance policy providers	1	2	3	4	5	6	7
Information from non-commercial websites (e.g. Websites of professional associations, webboards and online communities)	1	2	3	4	5	6	7
Statements	Not at all important	Very Unimportant	Unimportant	Neither important	Important	Very Important	Extremely

News stories about medical industries in different destinations	1	2	3	4	5	6	7
Reports about medical industries and medical tourism in potential destinations	1	2	3	4	5	6	7
Documentaries about medical industries in potential destinations	1	2	3	4	5	6	7
Articles about medical industries and medical tourism in potential destinations	1	2	3	4	5	6	7
Friends and Family	1	2	3	4	5	6	7
Personal doctors	1	2	3	4	5	6	7
Testimonials from those who have received the medical treatments in potential destinations	1	2	3	4	5	6	7

Part Three: Selection of medical tourism destination

11. When you think about countries where you can receive your desired medical treatment, what countries first come to mind? (please name all countries that apply)

12. Have you ever visited any of the following countries for medical reasons?

Thailand	Yes	No
Singapore	Yes	No
Malaysia	Yes	No
India	Yes	No
Other Country (Please Specify)	Yes	No

13. When considering your ideal medical tourism destination, please indicate your degree of agreement or disagreement with these statements on the 7 point scale provide

My ideal medical tourism destination...	Strongly disagree	Disagree	Tend to disagree	Neither Agree nor Disagree	Tend to Agree	Agree	Strongly Agree
...has many international standard hospitals with board certified doctors & surgeons	1	2	3	4	5	6	7
...provides the same medical treatments at much lower cost than my home country	1	2	3	4	5	6	7
...is safe to travel to by oneself	1	2	3	4	5	6	7
...has a level of hygiene similar to my own country	1	2	3	4	5	6	7

...has beautiful beaches	1	2	3	4	5	6	7
...has direct flights from where I live	1	2	3	4	5	6	7
...has many international standard hospitals with high treatment success rates	1	2	3	4	5	6	7
...provides my desired medical treatment at a lower cost compared to other destinations	1	2	3	4	5	6	7
...has low crime rates	1	2	3	4	5	6	7
...is safe to buy food and drinks from general food vendors	1	2	3	4	5	6	7
...has wonderful scenic beauty	1	2	3	4	5	6	7
...has many international standard hospitals specialising in my desired treatments	1	2	3	4	5	6	7
...has many hospitals that are equipped with the world's most sophisticated medical equipment	1	2	3	4	5	6	7
...is safe to walk on the street by oneself	1	2	3	4	5	6	7
...has no epidemic diseases	1	2	3	4	5	6	7
...has authentic historical sites	1	2	3	4	5	6	7
...has many hospitals that affiliate with reputable medical institutions and schools	1	2	3	4	5	6	7
...has hospitals that provide care with a high ratio of registered nurses per patient	1	2	3	4	5	6	7
...has healthcare professionals that are fluent in several languages including my native language	1	2	3	4	5	6	7
...can be accessed from my home country at low cost	1	2	3	4	5	6	7
...is politically stable	1	2	3	4	5	6	7
...has a low incidence of natural disasters	1	2	3	4	5	6	7
...has good security systems in buildings (e.g. fire evacuation system, surveillance cameras etc.)	1	2	3	4	5	6	7
...has a safe environment	1	2	3	4	5	6	7
...has hygiene levels in healthcare providers which are compatible with the hygiene level in my country	1	2	3	4	5	6	7
...has good shopping facilities	1	2	3	4	5	6	7
...is a convenient proximity to my home country	1	2	3	4	5	6	7
...has various hospitals that have been accredited internationally from world reputable institutions including JCIO (Joint Commission for Accreditation of Health Care Organisations)	1	2	3	4	5	6	7
...has a much lower cost of living in comparison to my home country	1	2	3	4	5	6	7
...has no internal conflicts	1	2	3	4	5	6	7
...has a variety of good bars and nightclubs	1	2	3	4	5	6	7
...has various hospitals that coordinates with healthcare providers in my home country so that I can be assured about quality of the care	1	2	3	4	5	6	7

...is not target for terrorists' attacks	1	2	3	4	5	6	7
...has a safe transportation system	1	2	3	4	5	6	7
...offers lower overall costs when combining the costs of medical treatments and all other travel costs	1	2	3	4	5	6	7
...has various hospitals that guarantee the results of the treatment and are willing to legally abide by relevant laws	1	2	3	4	5	6	7

14. Please indicate how hygienic you perceive the following countries to be:

How hygienic do you think these countries are?	Very unhygienic	Unhygienic	Somewhat unhygienic	Neither hygienic nor unhygienic	Somewhat hygienic	Hygienic	Very hygienic
Thailand	1	2	3	4	5	6	7
Malaysia	1	2	3	4	5	6	7
Singapore	1	2	3	4	5	6	7
India	1	2	3	4	5	6	7
Other country (please name) _____	1	2	3	4	5	6	7

15. Please indicate your perception about security and safety in the following countries:

How safe and secure do you think these countries are?	Not at all safe and secure	Unsafe and insecure	Somewhat unsafe and insecure	Neutral	Somewhat safe and secure	Safe and secure	Highly safe and secure
Thailand	1	2	3	4	5	6	7
Malaysia	1	2	3	4	5	6	7
Singapore	1	2	3	4	5	6	7
India	1	2	3	4	5	6	7
Other country (please name) _____	1	2	3	4	5	6	7

Part Four: Destination appeal and visit intention

16. Please indicate how likely you are to travel to the following countries to receive your desired medical treatments:

Country	Very unlikely	Unlikely	Somewhat unlikely	Neither likely nor unlikely	Somewhat likely	Likely	Very likely
Malaysia	1	2	3	4	5	6	7
Thailand	1	2	3	4	5	6	7
India	1	2	3	4	5	6	7
Singapore	1	2	3	4	5	6	7
Other country (please name): _____	1	2	3	4	5	6	7

17. Please explain your responses to Question 15

Part Five: Demographic factors

Please tick the appropriate box for each of the remaining questions.

18. What is your country of residence?

19. Please indicate your gender:

Male Female

20. Which of the following age groups do you belong to?

- | | | | | | |
|--------------------------|----|-------------------|--------------------------|----|------------------------|
| <input type="checkbox"/> | A. | 18 - 30 years old | <input type="checkbox"/> | B. | 31-40 years old |
| <input type="checkbox"/> | C. | 41-50 years old | <input type="checkbox"/> | D. | 51-60 years old |
| <input type="checkbox"/> | E. | 61-70 years old | <input type="checkbox"/> | F. | 71 years old and above |

21. What is your marital status?

- | | | | | | |
|--------------------------|----|----------|--------------------------|----|------------|
| <input type="checkbox"/> | A. | Single | <input type="checkbox"/> | B. | Cohabiting |
| <input type="checkbox"/> | C. | Married | <input type="checkbox"/> | D. | Separated |
| <input type="checkbox"/> | E. | Divorced | <input type="checkbox"/> | F. | Widowed |

22. What is your country of residence?

- | | | | | | |
|--------------------------|----|----------------------|--------------------------|----|-----------|
| <input type="checkbox"/> | A. | United Arab Emirates | <input type="checkbox"/> | B. | Australia |
|--------------------------|----|----------------------|--------------------------|----|-----------|

<input type="checkbox"/>	C.	Singapore	<input type="checkbox"/>	D.	Hong Kong
<input type="checkbox"/>	D	USA	<input type="checkbox"/>	E	UK
<input type="checkbox"/>	F.	JAPAN	<input type="checkbox"/>	G	GERMANY
<input type="checkbox"/>	H	INDONESIA	<input type="checkbox"/>	I	MALAYSIA
<input type="checkbox"/>	J	CHINA	<input type="checkbox"/>	K	TAIWAN
<input type="checkbox"/>	M	Other (Please Specify) _____			

23. Please state your annual personal income in US Dollar

<input type="checkbox"/>	A.	10,000 and below	<input type="checkbox"/>	B.	10,001-30,000
<input type="checkbox"/>	C.	30,001-60,000	<input type="checkbox"/>	D.	60,001-100,000
<input type="checkbox"/>	E	100,001-200,000	<input type="checkbox"/>	F	More than 200,001

24. Education

<input type="checkbox"/>	A.	Up to and including High School	<input type="checkbox"/>	B.	College Diploma
<input type="checkbox"/>	C.	Bachelor's Degree	<input type="checkbox"/>	D.	Master's Degree
<input type="checkbox"/>	E.	Doctorate Degree	<input type="checkbox"/>	F.	Other (please specify) _____

25. Employment Status

<input type="checkbox"/>	A.	Unemployed	<input type="checkbox"/>	B.	Employed with temporary contract
<input type="checkbox"/>	C.	Freelance Professionals	<input type="checkbox"/>	D.	Corporate Firms Employees
<input type="checkbox"/>	E.	Business Owners	<input type="checkbox"/>	F.	Other (Please Specify) _____

Thank you very much for agreeing to complete this questionnaire. Kindly name any person whom you think he/she is interested in medical tourism as well as his/her telephone number or e-mail address

Appendix two: Inter-item and item to total correlations of composite variables

Appendix 2.1: Item to total and inter item correlations of Internal Health of Control

	Internal health of control	I can have better health by engaging in healthier behaviour	Whether I have good or bad health, it is my own responsibility	My current health condition is a result of the choices I make in life	I have a full control of how my health problems which I currently suffer from	My current health condition is the result of my own unhealthy behaviour	I deserve credit if my health gets better and blame if it gets worse	If I choose a healthier life, I should get healthier	I am fully responsible for what happens in my life
Internal health of control	1	0.682	0.751	0.839	0.793	0.766	0.784	0.730	0.745
I can have better health by engaging in healthier behaviour	0.682	1	0.694	0.598	0.458	0.346	0.333	0.574	0.518
Whether I have good or bad health, it is my own responsibility	0.751	0.694	1	0.569	0.551	0.467	0.512	0.480	0.521
My current health condition is a result of the choices I make in life	0.839	0.598	0.569	1	0.639	0.593	0.616	0.558	0.570
I have a full control of how my health problems which I currently suffer from	0.793	0.458	0.551	0.639	1	0.497	0.601	0.530	0.514
My current health condition is the result of my own unhealthy behaviour	0.766	0.346	0.467	0.593	0.497	1	0.668	0.510	0.493
I deserve credit if my health gets better and blame if it gets worse	0.784	0.333	0.512	0.616	0.601	0.668	1	0.452	0.492
If I choose a healthier life, I should get healthier	0.730	0.574	0.480	0.558	0.530	0.510	0.452	1	0.457
I am fully responsible for what happens in my life	0.745	0.518	0.521	0.570	0.514	0.493	0.492	0.457	1

Appendix 2.2: Inter-item and item to total correlations of Health Locus of Control

	Chance health locus of control	My imperfect health condition happened to me by chance	If I am to have better health, it is a matter of luck	I am destined to have the health problems which I currently suffer from	It is no one's fault that I have my current health problem
Chance health locus of control	1	0.799	0.758	0.754	0.551
My imperfect health condition happened to me by chance	0.799	1	0.664	0.383	0.517
If I am to have better health, it is a matter of luck	0.758	0.664	1	0.351	0.496
I am destined to have the health problems which I currently suffer from	0.754	0.383	0.351	1	0.350
It is no one's fault that I have my current health problem	0.551	0.517	0.496	0.350	1

Appendix 2.3: Inter-item and item to total correlations of people health locus of control

	People health locus of control	If I have a regular checkups, I am less likely	Strict following of doctor's advice is the best	Other people play a big role in my health	The type of support I receive from other people determines how healthy I am	Regarding my health, I should only do what my doctors tell me to do	Health professionals are responsible for
People health locus of control	1	0.768	0.818	0.769	0.728	0.759	0.753
If I have a regular checkups, I am less likely to have any health problems	0.768	1	0.687	0.453	0.470	0.478	0.425
Strict following of doctor's advice is the best way to keep myself healthy	0.818	0.453	1	0.540	0.479	0.596	0.473
Other people play a big role in my health condition	0.769	0.470	0.540	1	0.490	0.476	0.533
The type of support I receive from other people determines how healthy I am	0.728	0.470	0.479	0.490	1	0.420	0.495
Regarding my health, I should only do what my doctors tell me to do	0.759	0.478	0.596	0.476	0.420	1	0.539
Health professionals are responsible for my health condition	0.753	0.425	0.473	0.533	0.496	0.539	1

Appendix 2.4: Inter-item and item to total correlations of Attitudes towards cost of medical care

	Attitudes towards cost of medical care	The cost of medical care in my home country is very high	I might get myself into financial difficulty if I have to pay for my desired medical treatment in my home country	My healthcare plan does not cover all treatments I need	I have to spend a fortune to receive certain treatments in my home country	Even for a resinous illness, if I choose to receive certain treatments, I have to partially pay for such treatments at home
Attitudes towards cost of medical care	1	0.745	0.795	0.681	0.787	0.638
The cost of medical care in my home country is very high	0.745	1	0.643	0.400	0.481	0.415
I might get myself into financial difficulty if I have to pay for my desired medical treatment in my home country	0.795	0.643	1	0.383	0.621	0.404
My healthcare plan does not cover all treatments I need	0.681	0.400	0.383	1	0.478	0.359
I have to spend a fortune to receive certain treatments in my home country	0.787	0.481	0.621	0.478	1	0.419
Even for a resinous illness, if I choose to receive certain treatments, I have to partially pay for such treatments at home	.638	0.415	0.404	0.359	0.419	1

Appendix 2.5: Inter-item and item-to-total correlations of Attitudes towards procedure involved with medical care

	Attitude towards procedures involved with medical treatments	Even if a treatment is fully covered by health plan, I must wait a long time to receive that treatment in my home country	Until I can receive the treatment, my health condition will get much worse	There is a lot of paper work to be done and the system functions too slowly in my home country	The healthcare system in my country requires me to take too many steps in order to receive the medical treatment I need
Attitude towards procedures involved with medical treatments	1	0.834	0.768	0.889	0.866
Even if a treatment is fully covered by health plan, I must wait a long time to receive that treatment in my home country	0.834	1	0.564	0.621	0.592
Until I can receive the treatment, my health condition will get much worse	0.768	0.564	1	0.546	0.492
There is a lot of paper work to be done and the system functions too slowly in my home country	0.889	0.621	0.546	1	0.816
The healthcare system in my country requires me to take too many steps in order to receive the medical treatment I need	0.866	0.592	0.492	0.816	1

Appendix 2.6: Inter-item and item to total correlations of induced image agents

	Induced Image agents	Brochures from potential destinations' national authorities about medical tourism	Brochures of medical care providers in potential destinations	Advertising campaigns attempted by destinations about medical tourism	Personal selling by staff of travel agencies specialising in medical tourism	Health insurance policy providers	Information from Internet websites
Induced Image agents	1	0.800	0.803	0.807	0.733	0.622	0.569
Brochures from potential destinations' national authorities about medical tourism	0.800	1	0.673	0.648	0.466	0.381	0.310
Brochures of medical care providers in potential destinations	0.803	0.673	1	0.563	0.408	0.491	0.373
Advertising campaigns attempted by destinations about medical tourism	0.807	0.648	0.563	1	0.661	0.353	0.272
Personal selling by staff of travel agencies specialising in medical tourism	0.733	0.466	0.408	0.661	1	0.341	0.251
Health insurance policy providers	0.622	0.381	0.491	0.353	0.341	1	0.387
Information from Internet websites	0.596	0.310	0.373	0.272	0.251	0.387	1

Appendix 2.7: Inter-item and item to total correlations of autonomous image agents

	Autonomous Image Agents	News about medical industries of different potential destinations	Reports about medical industries and medical tourism in potential destinations	Documentary about medical industries in potential destinations	Articles about medical industries and medical tourism in potential destinations
Autonomous Image agents	1	0.801	0.896	0.900	0.821
News about medical industries of different potential destinations	0.801	1	0.658	0.661	0.468
Reports about medical industries and medical tourism in potential destinations	.896	0.658	1	0.759	0.645
Documentary about medical industries in potential destinations	0.900	0.661	0.759	1	0.701
Articles about medical industries and medical tourism in potential destinations	.821	0.468	0.645	0.701	1

Appendix 2.8: Inter-item and item to total correlations of organic image agents

	Organic image agents	Friends and Family	Personal doctors	Testimonials from those who have received the medical treatments in potential destinations
Organic image agents	1	0.857	0.874	0.797
Friends and Family	0.857	1	0.678	0.482
Personal doctors	0.874	0.678	1	0.536
Testimonials from those who have received the medical treatments in potential destinations	0.797	0.482	0.536	1

Appendix 2.9: Inter-item and item-to-total correlations of quality of care

	QUALITY OF CARE	CARE 1	CARE 2	CARE 3	CARE 4	CARE 5	CARE 6	CARE 7	CARE 8	CARE 9	CARE 10
QUALITY OF CARE	1	0.632	0.732	0.671	0.703	0.700	0.723	0.678	0.717	0.613	0.711
...has many international standard hospitals with board certified doctors & surgeons (CARE1)	0.632	1	0.497	0.436	0.371	0.355	0.351	0.365	0.400	0.245	0.420
...has many international standard hospitals with high treatment success rates (CARE2)	0.732	0.497	1	0.494	0.459	0.447	0.435	0.427	0.427	0.351	0.495
...has many international standard hospitals specialising in my desired treatments (CARE3)	0.671	0.436	0.494	1	0.530	0.360	0.417	0.329	0.337	0.313	0.387
...has many hospitals that are equipped with the world's most sophisticated medical equipment (CARE4)	0.703	0.371	0.459	0.530	1	0.450	0.466	0.313	0.432	0.287	0.458
...has many hospitals that affiliate with reputable medical institutions and schools (CARE5)	0.700	0.355	0.447	0.360	0.450	1	0.557	0.326	0.506	0.326	0.423
...has hospitals that provide care with a high ratio of registered nurses per patient (CARE6)	0.723	0.351	0.435	0.417	0.466	0.557	1	0.374	0.448	0.375	0.551
...has healthcare professionals that are fluent in several languages including my native language (CARE7)	0.678	0.365	0.427	0.329	0.313	0.326	0.374	1	0.402	0.334	0.325
...has various hospitals that have been accredited internationally from world reputable institutions including JCIO (Joint Commission for Accreditation of Health Care Organisations) (CARE8)	0.717	0.400	0.427	0.337	0.432	0.506	0.448	0.402	1	0.464	0.469
...has various hospitals that coordinates with healthcare providers in my home country so that I can be assured about quality of the care (CARE9)	0.613	0.245	0.351	0.313	0.287	0.326	0.375	0.334	0.464	1	0.363
...has various hospitals that guarantee the results of the treatment and are willing to legally abide by relevant laws (CARE10)	0.711	0.420	0.495	0.387	0.458	0.423	0.551	0.325	0.469	0.363	1

Appendix 2.10: Inter-item and item-to-total correlations of saving potential

	SAVING POTENTIAL	...provides the same medical treatments at much lower cost than my home country	...offers lower overall costs when combining the costs of medical treatments and all other travel costs	...has a much lower cost of living in comparison to my home country	...offers lower overall costs when combining the costs of medical treatments and all other travel costs
SAVING POTENTIAL	1	0.814	0.821	0.340	0.608
...provides the same medical treatments at much lower cost than my home country	0.814	1	0.530	0.204	0.472
...provides my desired medical treatment at a lower cost compared to other destinations	0.821	0.530	1	0.251	0.514
...has a much lower cost of living in comparison to my home country	0.340	0.240	0.251	1	0.388
...offers lower overall costs when combining the costs of medical treatments and all other travel costs	0.608	0.472	0.514	0.388	1

Appendix 2.11: Inter-item, and item-to-total correlations of safety and security issues

	SAFETY AND SECURITY ISSUES	...is safe to travel to by oneself	...has low crime rates	...is safe to walk on the street by oneself	...is politically stable	...has a low incidence of natural	...has good security systems in buildings (e.g. fire evacuation system,	...has a safe environment	...has no internal conflicts	...is not target for terrorists' attacks	...has a safe transportation system
SAFETY AND SECURITY ISSUES	1	0.503	0.671	0.696	0.791	0.788	0.751	0.737	0.681	0.756	0.742
...is safe to travel to by oneself	0.503	1	0.240	0.235	0.383	0.223	0.375	0.438	0.196	0.263	0.279
...has low crime rates	0.671	0.240	1	0.509	0.483	0.490	0.409	0.370	0.397	0.428	0.439
...is safe to walk on the street by oneself	0.696	0.235	0.509	1	0.492	0.547	0.392	0.472	0.447	0.422	0.459
...is politically stable	0.791	0.383	0.483	0.492	1	0.631	0.557	0.513	0.478	0.567	0.489
...has a low incidence of natural disasters	0.788	0.223	0.490	0.547	0.631	1	0.555	0.474	0.534	0.554	0.556
...has good security systems in buildings (e.g. fire evacuation system, surveillance cameras etc.)	0.751	0.375	0.409	0.392	0.557	0.555	1	0.644	0.355	0.518	0.555
...has a safe environment	0.737	0.438	0.370	0.472	0.513	0.474	0.644	1	0.373	0.504	0.570
...has no internal conflicts	0.681	0.196	0.397	0.447	0.478	0.534	0.355	0.373	1	0.532	0.445
...is not target for terrorists' attacks	0.756	0.263	0.428	0.422	0.567	0.554	0.518	0.504	0.532	1	0.554
...has a safe transportation system	0.742	0.279	0.439	0.459	0.489	0.556	0.555	0.570	0.445	0.554	1



For the kind attention of:
Khun Pornsiri Mahoban
Governor
Tourism Authority of Thailand
 1600 New Petchburi Road
 Makkasan Rajthevee
 Bangkok 10400
 Facsimile Number: 02-652-8201

This transmission consists of 1 page
 (Including this covering page)

Friday 18th January 2008

Dear Madame the Governor,
RE: REQUEST FOR CO-SPONSORSHIP OF THE DOCTORAL RESEARCH THESIS

I would like, first, to express a great appreciation towards your kind assistance granted to me with the information acquisition from your organization. As you might have already known that the research topic is about the consumer behavior of medical tourists in choosing a medical tourism destination which might help our country to become a tourism capital of Asia as envisioned by the government. As I might get obstructed with the access to respondents - those who depart or are interested to depart to Thailand for medical treatments, my supervisor suggested me asking for co-sponsorship from TAT through offshore offices in distributing survey questionnaires through the network established in each market. I would, therefore, like to request for your organization's co-sponsorship to the research project by agreeing to distribute questionnaires to respondents through networks in the foreign markets after your kind approval of the content.

Thank you in anticipation for your kind consideration for the above and look forward to working with TAT in developing tourism in Thailand. Should you have any queries or concerns, please do not hesitate to contact me directly.

Yours respectfully,

Nuttapong Jotikasthira
 DBA Candidate
 Southern Cross University
 Full Time Lecturer
 Rangsit University
 Facsimile number: 02-527-3288
 E-mail: n.jotikasthira.10@scu.edu.au

29 JAN. 51



การท่องเที่ยวแห่งประเทศไทย

เลขที่ ๑๖๐๐ ถนนเพชรบุรีตัดใหม่ แขวงมักกะสัน เขตราชเทวี กรุงเทพฯ ๑๐๕๐๐

โทรศัพท์ ๐ ๒๒๕๐ ๕๕๐๐ (อัตโนมัติ ๑๒๐ เลขหมาย)

โทรสาร ๐ ๒๒๕๐ ๕๕๑๑ (อัตโนมัติ ๒ เลขหมาย)

Internet: www.tat.or.th, E-mail Address: center@tat.or.th

ศูนย์บริการข้อมูลท่องเที่ยว (TAT Call Center) ๑๖๗๒

สำนักงานในประเทศ

ททท. สำนักงานภาคเหนือ เขต ๑

(เชียงใหม่ ลำพูน ลำปาง แม่ฮ่องสอน)
๑๐๕/๑ ถ.เชียงใหม่-ลำพูน ต.วัดเกต
อ.เมืองฯ จ.เชียงใหม่ ๕๐๐๐๐
โทรศัพท์ ๐ ๕๓๒๔ ๘๖๐๘, ๐ ๕๓๒๔ ๘๖๐๗
โทรสาร ๐ ๕๓๒๔ ๘๖๐๕
E-mail Address: tatchmai@tat.or.th
เว็บไซต์: www.tatchiangmai.org

ททท. สำนักงานภาคเหนือ เขต ๒

(เชียงใหม่ พะเยาแพร่ น่าน)
๕๔๘/๑๖ ถ.สิงห์โคก อ.เมืองฯ จ.เชียงใหม่ ๕๓๐๐๐
โทรศัพท์ ๐ ๕๓๗๒ ๗๕๓๓, ๐ ๕๓๗๕ ๘๖๗๕-๕
โทรสาร ๐ ๕๓๗๒ ๗๕๓๔
E-mail Address: tatchrai@tat.or.th

ททท. สำนักงานภาคเหนือ เขต ๓

(พิษณุโลก เพชรบูรณ์ สุโขทัย อุตรดิตถ์)
๒๐๘/๗-๘ ศูนย์การค้าสุริยสิทธิ์ ถ.บรมไตรโลกนาถ
อ.เมืองฯ จ.พิษณุโลก ๖๕๐๐๐
โทรศัพท์ ๐ ๕๕๒๕ ๒๗๕๒-๓, ๐ ๕๕๒๕ ๕๗๐๗
โทรสาร ๐ ๕๕๒๕ ๑๐๖๓
E-mail Address: tatphlok@tat.or.th

ททท. สำนักงานภาคเหนือ เขต ๔

(ตาก พิจิตร กำแพงเพชร นครสวรรค์ อุทัยธานี)
๑๕๓ ถ.ตากสิน ต.หนองหลวง อ.เมืองฯ จ.ตาก ๖๓๐๐๐
โทรศัพท์ ๐ ๕๕๕๑ ๔๓๔๑-๓
โทรสาร ๐ ๕๕๕๑ ๓๓๔๔
E-mail Address: tattak@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๑

(กาญจนบุรี นครปฐม ราชบุรี สุพรรณบุรี)
ถ.แสงชูโต ต.บ้านเหนือ อ.เมืองฯ จ.กาญจนบุรี ๗๑๐๐๐
โทรศัพท์ ๐ ๓๔๕๑ ๑๒๐๐, ๐ ๓๔๕๑ ๒๕๐๐
โทรสาร ๐ ๓๔๕๑ ๑๒๐๐
E-mail Address: tatkan@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๒

(เพชรบุรี (ชะอำ) สมุทรสาคร สมุทรสงคราม
ประจวบคีรีขันธ์)
๕๐๐/๕๑ ถ.เพชรเกษม อ.ชะอำ จ.เพชรบุรี ๗๖๑๒๐
โทรศัพท์ ๐ ๓๒๔๗ ๑๐๐๕-๖
โทรสาร ๐ ๓๒๔๗ ๑๕๐๒
E-mail Address: tatphet@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๓

(พิจัย (ชลบุรี))
๖๐๘ หมู่ ๑๐ ถ.พระตำหนัก ต.หนองปรือ
อ.บางละมุง จ.ชลบุรี ๒๐๒๖๐
โทรศัพท์ ๐ ๓๘๔๒ ๗๖๖๗, ๐ ๓๘๔๒ ๘๗๕๐,
๐ ๓๘๔๒ ๓๓๓๐
โทรสาร ๐ ๓๘๔๒ ๓๑๑๓
E-mail Address: tatchon@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๔

(ระยอง จันทบุรี)
๑๕๓/๔ ถ.สุขุมวิท ต.ตะพง อ.เมืองฯ จ.ระยอง ๒๑๐๐๐
โทรศัพท์ ๐ ๓๘๖๕ ๕๕๒๐-๑, ๐ ๓๘๖๖ ๔๕๕๕
โทรสาร ๐ ๓๘๖๕ ๕๕๒๒
E-mail Address: tatryong@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๕

(ตราดและหมู่เกาะ)
๑๐๐ หมู่ ๑ ถ.ตราด-แหลมงอบ ต.แหลมงอบ
อ.แหลมงอบ จ.ตราด ๒๓๑๒๐
โทรศัพท์ ๐ ๓๘๕๓ ๗๒๕๓-๖๐
โทรสาร ๐ ๓๘๕๓ ๗๒๕๕
E-mail Address: tattat@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๖

(พระนครศรีอยุธยา อ่างทอง ปทุมธานี นนทบุรี)
๑๐๘/๒๒ หมู่ ๔ ต.ประตู่ชัย อ.พระนครศรีอยุธยา
จ.พระนครศรีอยุธยา ๑๓๐๐๐
โทรศัพท์ ๐ ๓๕๒๕ ๖๐๗๖-๗
โทรสาร ๐ ๓๕๒๕ ๖๐๗๕
E-mail Address: tatutuya@tat.or.th

ททท. สำนักงานภาคกลาง เขต ๗

(ลพบุรี สระบุรี ชัยนาท สิงห์บุรี)
ถ.รอบวัดพระธาตุ อ.เมืองฯ จ.ลพบุรี ๑๕๐๐๐
โทรศัพท์ ๐ ๓๖๕๒ ๒๗๖๘-๙
โทรสาร ๐ ๓๖๕๒ ๔๐๘๘
E-mail Address: tatlobn@tat.or.th
เว็บไซต์: www.tat7.com

ททท. สำนักงานภาคกลาง เขต ๘

(นครนายก สระแก้ว ปราจีนบุรี สมุทรปราการ ฉะเชิงเทรา)
๑๘๒/๘๘ หมู่ ๑ ถ.สุวรรณศร ต.ท่าช้าง อ.เมืองฯ
จ.นครนายก ๒๖๐๐๐
โทรศัพท์ ๐ ๓๗๓๑ ๒๒๘๒, ๐ ๓๗๓๑ ๒๒๘๔
โทรสาร ๐ ๓๗๓๑ ๒๒๘๖
E-mail Address: tatnayok@tat.or.th
เว็บไซต์: www.tat8.com

ททท. สำนักงานภาคตะวันออกเฉียงเหนือ เขต ๑

(นครราชสีมา สุรินทร์ บุรีรัมย์ ชัยภูมิ)
๒๑๐๒-๒๑๐๔ ถ.มิตรภาพ ต.ในเมือง อ.เมืองฯ
จ.นครราชสีมา ๓๐๐๐๐
โทรศัพท์ ๐ ๔๔๒๑ ๓๖๖๖, ๐ ๔๔๒๑ ๓๐๓๐
โทรสาร ๐ ๔๔๒๑ ๓๖๖๗
E-mail Address: tatsima@tat.or.th

ททท. สำนักงานภาคตะวันออกเฉียงเหนือ เขต ๒

(อุบลราชธานี อ่างทองเจริญ ศรีสะเกษ ยโสธร)
๒๖๘/๑ ถ.เขื่อนธานี อ.เมืองฯ จ.อุบลราชธานี ๓๔๐๐๐
โทรศัพท์ ๐ ๔๕๒๔ ๓๗๗๐, ๐ ๔๕๒๕ ๐๗๑๔
โทรสาร ๐ ๔๕๒๔ ๓๗๗๑
E-mail Address: tatubon@tat.or.th
เว็บไซต์: www.tatubon.org

ททท. สำนักงานภาคตะวันออกเฉียงเหนือ เขต ๓

(ขอนแก่น ร้อยเอ็ด มหาสารคาม)
๑๕/๕ ถ.ประชาสโมสร ต.ในเมือง อ.เมืองฯ
จ.ขอนแก่น ๔๐๐๐๐
โทรศัพท์ ๐ ๔๓๒๔ ๔๕๔๘-๙ โทรสาร ๐ ๔๓๒๔ ๔๕๔๗
E-mail Address: tatkhkn@tat.or.th

ททท. สำนักงานภาคตะวันออกเฉียงเหนือ เขต ๔

(นครพนม สกลนคร มุกดาหาร กาฬสินธุ์)
๑๘๘/๑ ถ.สุนทรวิจิตร ต.ในเมือง อ.เมืองฯ
จ.นครพนม ๔๘๐๐๐
โทรศัพท์ ๐ ๔๒๕๑ ๓๕๔๐-๑ โทรสาร ๐ ๔๒๕๑ ๓๕๓๒
E-mail Address: tatphnom@tat.or.th
เว็บไซต์: www.isantourism.com

ททท. สำนักงานภาคตะวันออกเฉียงเหนือ เขต ๕

(อุดรธานี หนองคาย หนองบัวลำภู เลย)
๑๖/๕ ถ.มุขมนตรี ต.หมากแข้ง อ.เมืองฯ
จ.อุดรธานี ๔๑๐๐๐
โทรศัพท์ ๐ ๔๒๒๒ ๕๕๐๖-๗
โทรสาร ๐ ๔๒๒๒ ๕๕๐๘
E-mail Address: tatudon@tat.or.th

ททท. สำนักงานภาคใต้ เขต ๑

(สงขลา (หาดใหญ่) สตูล)
๑/๑ ซ. ๒ ถ.นิพัทธ์อุทิศ ๓ อ.หาดใหญ่
จ.สงขลา ๙๐๑๑๐
โทรศัพท์ ๐ ๗๕๒๓ ๑๐๕๕, ๐ ๗๕๒๓ ๘๕๑๘,
๐ ๗๕๒๔ ๓๗๔๗
โทรสาร ๐ ๗๕๒๔ ๕๕๘๖
E-mail Address: tatsgkhi@tat.or.th
เว็บไซต์: www.songkhlaturism.org

ททท. สำนักงานภาคใต้ เขต ๒

(นครศรีธรรมราช ตรัง พัทลุง)
สนามหน้าเมือง ถ.ราชดำเนิน อ.เมืองฯ
จ.นครศรีธรรมราช ๘๐๐๐๐
โทรศัพท์ ๐ ๗๕๓๔ ๖๕๑๕-๖
โทรสาร ๐ ๗๕๓๔ ๖๕๑๗
E-mail Address: tatnksri@tat.or.th

ททท. สำนักงานภาคใต้ เขต ๓

(นราธิวาส ยะลา ปัตตานี)
๑๐๒/๓ หมู่ ๒ ถ.นราธิวาส-ตากใบ ต.กะลุวอเหนือ
อ.เมืองฯ จ.นราธิวาส ๙๖๐๐๐
โทรศัพท์ ๐ ๗๓๕๒ ๒๔๑๑
โทรสาร ๐ ๗๓๕๒ ๒๔๑๒
E-mail Address: tatnara@tat.or.th

ททท. สำนักงานภาคใต้ เขต ๔

(ภูเก็ต พังงา กระบี่)
๑๓๑ ถ.กลาง ต.ตลาดใหญ่ อ.เมืองฯ จ.ภูเก็ต ๘๓๐๐๐
โทรศัพท์ ๐ ๗๖๒๑ ๒๒๑๓, ๐ ๗๖๒๑ ๓๐๓๖,
๐ ๗๖๒๑ ๗๑๓๘
โทรสาร ๐ ๗๖๒๑ ๓๕๕๒
E-mail Address: tatphket@tat.or.th
เว็บไซต์: www.phuketourism.org

ททท. สำนักงานภาคใต้ เขต ๕

(สุราษฎร์ธานี ชุมพร ระนอง)
๕ ถ.ตลาดใหม่ บ้านดอน อ.เมืองฯ จ.สุราษฎร์ธานี ๘๔๐๐๐
โทรศัพท์ ๐ ๗๗๒๘ ๘๘๘๘-๙
โทรสาร ๐ ๗๗๒๘ ๒๘๒๘
E-mail Address: tatsurat@tat.or.th

สำนักงานศูนย์ประสานงานการท่องเที่ยว

ศูนย์ประสานงานการท่องเที่ยว จังหวัดแม่ฮ่องสอน
ที่ว่าการอำเภอเมืองฯ (หลังเก่า) ถ.ขุนลุมประพาส อ.เมืองฯ
จ.แม่ฮ่องสอน ๕๘๐๐๐
โทรศัพท์ ๐ ๕๓๖๑ ๒๕๖๒-๓ โทรสาร ๐ ๕๓๖๑ ๒๕๖๔
E-mail Address: tamhs@tat.or.th
เว็บไซต์: www.travelmaehongson.org

ศูนย์ประสานงานการท่องเที่ยว จังหวัดเลย
ที่ว่าการอำเภอเมืองเลย (หลังเก่า) ถ.เจริญรัฐ จ.อุบลราชธานี
อ.เมืองฯ จ.เลย ๔๒๐๐๐
โทรศัพท์ ๐ ๔๒๘๑ ๒๕๖๒, ๐ ๔๒๘๑ ๑๕๐๕
โทรสาร ๐ ๔๒๘๑ ๑๕๐๖
E-mail Address: tatloe@tat.or.th

ศูนย์ประสานงานการท่องเที่ยว จังหวัดกระบี่
ถ.สุทนต์ อ.เมืองฯ จ.กระบี่ ๘๑๐๐๐
โทรศัพท์ ๐ ๗๕๖๒ ๒๕๖๓ โทรสาร ๐ ๗๕๖๒ ๒๕๖๔
E-mail Address: tatkrabi@tat.or.th

ศูนย์ประสานงานการท่องเที่ยว จังหวัดตรัง
๑๖๐/๘ ถ.พระราม ๖ อ.เมืองฯ จ.ตรัง ๙๒๐๐๐
โทรศัพท์ ๐ ๗๕๖๑ ๕๕๖๗-๘ โทรสาร ๐ ๗๕๖๑ ๕๕๖๘
E-mail Address: tattrang@tat.or.th

ศูนย์ประสานงานการท่องเที่ยว เกาะสมุย
เมืองที่ทำการประมงอ่าวหน้าอ้น ๓๗๐ หมู่ ๓ ต.อ่างทอง
อ.เกาะสมุย จ.สุราษฎร์ธานี ๘๔๑๐๐
โทรศัพท์และโทรสาร ๐ ๗๗๔๒ ๐๕๐๔, ๐ ๗๗๔๒ ๐๗๒๐-๒
E-mail Address: tatsamui@tat.or.th

ศูนย์ประสานงานการท่องเที่ยว จังหวัดสุพรรณบุรี
ศาลากลางจังหวัดสุพรรณบุรี ชั้น ๓ ถ.สุพรรณมา-ชัยนาท
อ.เมืองฯ จ.สุพรรณบุรี ๗๒๐๐๐
โทรศัพท์และโทรสาร ๐ ๓๕๕๓ ๖๐๓๐
E-mail Address: tatsuphan@tat.or.th

สำนักงานต่างประเทศ

สำนักงานลอสแอนเจลิส

611 North Larchmont Boulevard, 1st Floor, Los Angeles, CA 90004, U.S.A.
Tel: (1 323) 461 9814 Fax: (1 323) 461 9834
E-mail address: tatla@ix.netcom.com, tatla@tat.or.th
Area of Responsibility: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, Guam Island and all Central and Southern America Countries

สำนักงานนิวยอร์ก

61 Broadway, Suite 2810 New York, N.Y. 10006, U.S.A.
Tel: (1 212) 432 0433
Fax: (1 212) 269 2588
E-mail Address: info@tatny.com, tatny@tat.or.th
Area of Responsibility: Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Iowa, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, New York, New Hampshire, New Jersey, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, Washington D.C., West Virginia, Wisconsin, Puerto Rico and the Bahamas and Canada Countries (West Canada: Alberta, British Columbia, Manitoba, Northwest Territories, Saskatchewan and Yukon East Canada: Ontario, Quebec, New Brunswick, Nova Scotia and New Foundland)

สำนักงานกัวลาลัมเปอร์

Suite 22.01, Level 22nd Floor, Menara Citibank, 165, Jalan Ampang, 50450 Kuala Lumpur, MALAYSIA
Tel: (60 3) 216 23480 Fax: (60 3) 216 23486
E-mail Address: sawatdi@po.jaring.my, tatkul@tat.or.th
Area of Responsibility: Malaysia, Brunei Darussalam

สำนักงานสิงคโปร์

C/o Royal Thai Embassy, 370 Orchard Rd., SINGAPORE 238870
Tel: (656) 235 7901 Fax: (656) 733 5653
E-mail Address: tatsin@singnet.com.sg, tatsin@tat.or.th
Area of Responsibility: Singapore, Indonesia, The Philippines

สำนักงานฮ่องกง

Room 1901 Jardine House, 1 Connaught Place, Central, HONG KONG
Tel: (852) 2868 0732, 2868 0854 Fax: (852) 2868 0428
E-mail Address: tathkg@pacific.net.hk, tathkg@tat.or.th
Website: www.amazingthailand.org.hk
Area of Responsibility: Hong Kong, Macau

สำนักงานไทเป

Thailand Tourism Division
13th Floor, Boss Tower, No.111 Sung Chiang Road, (Near Nanking East Road Junction) TAIPEI 104
Tel: (886 2) 2502-1600 Fax: (886 2) 2502-1603
E-mail address: tattp@ms3.hinet.net, tattp@tat.or.th
Website: www.tattp.org.tw
Area of Responsibility: Taiwan

สำนักงานปักกิ่ง

Room 902, Office Tower E1, Oriental Plaza, No. 1 East Chang An Avenue, Dong Cheng District, Beijing 100738, CHINA
Tel: (86 10) 8518 3526-29 Fax: (86 10) 8518 3530
E-mail Address: tatbj@sohu.com, tatbj@tat.or.th
Website: www.tatbj.org.cn
Area of Responsibility: PR China (except Hong Kong SAR, Macau SAR and Taiwan) & Mongolia

สำนักงานนิวเดลี

D-2, Westend Area, New Delhi, INDIA 110021
Tel: (91 11) 5166 3567-69 Fax: (91 11) 5166 3570
E-mail Address: tatdel@yahoo.com, tatdel@tat.or.th
Area of Responsibility: India, Bagladesh, Sri Lanka, Pakistan and Nepal

สำนักงานโตเกียว

Yurakucho Denki Building, South Tower 2nd Floor, Room 259, 1-7-1 Yurakucho, Chiyoda-ku, Tokyo 100-0006, JAPAN
Tel: (81 3) 3218 1077 Fax: (81 3) 3218 0655
E-mail Address: tattky@tattky.com, tattky@tat.or.th
Website: www.thailandtravel.or.jp
Area of Responsibility: Northern Area of Honshu Island: Tohoku, Kanto and Hokkaido Island

สำนักงานโอซากา

Technoble Yotsubashi Building, 3rd Floor, 1-6-8 Kitahone, Nishi-ku, Osaka 550-0014, JAPAN
Tel: (81 6) 6543 6654, 6543 6655
Fax: (81 6) 6543 6660
E-mail Address: info@tatosa.com
Website: www.thailandtravel.or.jp
Area of Responsibility: Southern Area of Honshu Island: Kinki, Chugoku and Chubu

สำนักงานฟุกุโอกะ

EL Gala Building, 6th Floor, 1-4-2 Tenjin, Chuo-ku, Fukuoka 810-0001, JAPAN
Tel: (81 92) 725 8808 Fax: (81 92) 735 4434
E-mail Address: tatfuk@tatfuk.com, tatfuk@tat.or.th
Website: www.thailandtravel.or.jp
Area of Responsibility: Kyushu Island, Shikoku Island and Okinawa

สำนักงานโซล

Coryo Daeyungak Center Building, Room No.1205, 12th Floor, 25-5, 1-Ka, Chungmu-Ro, Chung-Ku, Seoul 100-706, KOREA
Tel: (82 2) 779 5416-8, 779 5160, 779 5162-4
Fax: (82 2) 779 5419
E-mail Address: info@tatsel.or.kr, tatsol@tat.or.th
Website: www.tatsel.or.kr
Area of Responsibility: Republic of Korea

สำนักงานซิดนีย์

Suite 2002, Level 20 56 Pitt Street, Sydney, NSW 2000 AUSTRALIA
Tel: (61 2) 9247 7549 Fax: (61 2) 9251 2465
E-mail Address: info@thailand.net.au, tatsyd@tat.or.th
Website: www.tourismthailand.org, www.thailand.net.au
Area of Responsibility: Australia, New Zealand and South Pacific

สำนักงานลอนดอน

3rd Floor, Brook House, 98-99 Jermyn Street, London SW1Y 6EE, ENGLAND
Tel: (44207) 925 2511 Fax: (44207) 925 2512
E-mail Address: info@tourismthailand.co.uk
Website: www.tourismthailand.co.uk
Area of Responsibility: United Kingdom and Ireland

สำนักงานสตอกโฮล์ม

Drottninggatan 33 GF, 111 51 Stockholm SWEDEN
Tel: (46 8) 700 56 91 Fax: (46 8) 700 56 98
E-mail Address: info@tourismthailand.se, tatsst@tat.or.th
Website: www.tourismthailand.se
Area of Responsibility: Sweden, Norway, Denmark, Finland, Iceland, Estonia, Latvia and Lithuania

สำนักงานแฟรงก์เฟิร์ต

Thailandisches Fremdenverkehrsamt, Bethmann Street 58, D-60311 Frankfurt/M., GERMANY
Tel: (49 69) 138 139 0 Fax: (49 69) 138 139 50
E-mail Address: info@thailandtourismus.de, tatfra@tat.or.th
Website: www.thailandtourismus.de
Area of Responsibility: Germany, Austria, Slovenia, Croatia, Switzerland, Liechtenstein, Romania, Yugoslavia, Bulgaria, Moldova, Macedonia, Albania, Czech Republic, Slovakia, Poland, Hungary, Bosnia-Herzegovina

สำนักงานมอสโก

Radisson Sas Slavyanskaya Hotel and Business Center, Business Center Office No. 626-628 Europe Square 2, 121059 Moscow, Russia
Tel: 7 (495) 941 8518, 7 (495) 941 8519
Fax: 7 (495) 941 8520
E-mail Address: tatmoscow@tat.or.th
Area of Responsibility: Russia, Belarus, Ukraine, Georgia, Armenia, Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan and Kyrgyz

สำนักงานปารีส

Office National du Tourisme de Thaïlande 90 Avenue des Champs-Élysées, 75008 Paris, FRANCE
Tel: (33 1) 5353 4700 Fax: (33 1) 4563 7888
E-mail Address: tatpar@wanadoo.fr, tatpar@tat.or.th
Area of Responsibility: France, Belgium, Luxembourg, The Netherlands, Morocco, Monaco, Tunisia and Algeria

สำนักงานกรุงโรม

Ente Nazionale per il Turismo Thailandese Via Barberini 68, 4th Floor, 00187 Roma, ITALY
Tel: (39 06) 420 14422, 420 14426
Fax: (39 06) 487 3500
E-mail Address: tat.rome@iol.it, tatrome@tat.or.th
Area of Responsibility: Italy, Spain, Greece, Portugal, Israel, Egypt, Turkey and Cyprus

สำนักงานดูไบ

Al Attar Tower 2102 Sheikh Zayed Road Dubai, United Arab Emirates
Tel: (971) 4 325 0185-6
Fax: (971) 4 325 0187
E-mail Address: tatdubai@tat.or.th
Area of Responsibility: Bahrain, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria and the Middle East, Yemen, U.A.E.

Appendix 2.12: Inter-item and item-to-total correlations of hygienic issues

	HYGIENIC ISSUES	...has a level of hygiene similar to my own country	...has no epidemic diseases	...has hygiene levels in healthcare providers which are compatible with the	...has hygiene levels in healthcare providers which are compatible with the
HYGIENIC ISSUES	1	0.715	0.672	0.781	0.738
...has a level of hygiene similar to my own country	0.715	1	0.387	0.415	0.404
...is safe to buy food and drinks from general food vendors	0.672	0.387	1	0.439	0.358
...has no epidemic diseases	0.781	0.415	0.439	1	0.389
...has hygiene levels in healthcare providers which are compatible with the hygiene level in my country	0.738	0.404	0.358	0.389	1

Appendix 2.13: Inter-item and item-to-total correlations of accessibility of medical tourism destinations

	Accessibility	...has direct flights from where I live	...is a convenient proximity to my home country
ACCESSIBILITY	1	0.889	0.875
...has direct flights from where I live	0.889	1	0.557
...is a convenient proximity to my home country	0.875	0.557	1