Factors affecting medical tourism destination selection: A Malaysian perspective

Jeetesh Kumar
Help University

Kashif Hussian
Taylor's University

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Jeetesh Kumar[1] and Kashif Hussian[2]

School of Hospitality and Tourism
Help University, Malaysia
[1]jeetesh.kumar@help.edu.my

School of Hospitality, Tourism and Culinary Arts
Taylor's University, Malaysia
[2]kashif.hussain@taylors.edu.my

Abstract

The study aims to assess the factors for medical tourism destination selection from medical tourist's perspective and to determine the satisfaction level of medical tourists in Malaysia. Field survey was conducted with the structured questionnaire to medical tourists admitted at 11 public and private hospitals in Kuala Lumpur region during September and October, 2013. A non-probability convenience sampling technique was used and 72 response were collected. Geography of Malaysia was found to be an important factor having direct and positive impact on patient's destinations selection and satisfaction level. Results also confirms that Malaysia is famous destination for Indonesians as a medical tourism destination. One of the apparent limitations of current research is the sample size, which is very small and also limited to hospitals in Kuala Lumpur, Malaysia. A study with different sample size and several locations in Malaysia may provide fruitful results for the evaluation of medical tourism destination selection. Finding of the current research are very much beneficial for the health ministry, tourism ministry and practitioners to improve the service level and in attracting big number of medical tourists to Malaysia. Several countries are offering medical tourism in Asia Pacific region and attracting big number of tourist every year. This Research was conducted to find out the factors, which are very much important to attract medical tourists to Kuala Lumpur, Malaysia and their satisfaction level to improve the performance level in future. Different aspects are involved like organization's functions, and Malaysian circumstances related to medical tourism in Kuala Lumpur Malaysia.

Keywords: medical tourism, factors, destination selection, satisfaction, Malaysia

Introduction

Medical Tourism takes place when a person travels across the border and outside their usual environment to seek medical treatment is called as 'medical travel', upon arrival such person is called a 'medical tourist', and the activities such as utilization of medical services by the medical tourist is called as 'medical tourism' (Jagyasi, 2008). There are many benefits of the medical tourism like cost savings, high quality care, specialty treatments, minimum waiting periods, new countries to visit and a totally new experience. With such benefits, there are also few risk involved in medical tourism such as the quality of postoperative procedure is very much important as the

patients travel to a foreign country for better treatment in treatments like surgery, bypass, organ transplantation etc. After the treatment when medical tourists come back to their home country, postsurgical care and precautions are very important which depend on the hospitals in home country. It could be different and not up to the expected standards. The long distance travelled soon after the surgery may lead to few complications such as thromboembolism (blood clot formation), also known as economy class syndrome.

Current research aims to assess the factors for medical tourism destination selection and identify level of patients' satisfaction as a case study of Malaysia, which can create a competitive advantage and show uniqueness for Malaysia. Satisfaction is an important concern for any competitive destination because it has a direct impact on the tourist's choice to select a destination. Therefore, the present study is set out to investigate the factors, which are important to attract medical tourists and identify their satisfaction level during their treatment period in Malaysia.

Background of the Study
The term medical tourism or health tourism is not new in health care industry, due to rising costs for medical procedures and increasing waiting time has forced many people to fly overseas to get medical treatment. History also shows that in Roman Empire, the Ancient Romans constructed resorts with thermal health spas and the Ancient Greeks used to travel and visit sanctuary of the healing God, Asklepios, and they found comprehensive health tourism system (Bookman & Bookman, 2007). This practice continued in 18th and 19th centuries when the wealthy individuals travelled to medical schools for medical assistance (Swarbrooke & Horner, 2007). During the same time period spa towns especially in south of France became popular for the health cures and the sun whereas north of the Europe for the cold climate (Holden, 2006). Travelling for the spa and sun seeking persisted into the 20th century, different health and spa resorts can be found globally. Today, medical tourist travels the world in search of cosmetic and dental surgery to organ transplants (Horowitz, Rosenweig, & Jeffrey, 2007).

There are few reasons why the medical tourism really deserves the due attention, like people are discovering high quality with low cost and nice customer service overseas, what they are unable to find in their home country, some more cost saving range as high as 60 to 90 percent (Williams & Seus, 2007). While talking about medical tourism, ancient Indian civilization can't be forgotten which talks about yoga and meditations. Yoga is as old as Indian culture, roughly around 2,500 years back. Buddhism came in foundation and it really helped India to make a position and pioneer the eastern cultural, spiritual and medical process. In 1960 when United States started the new age movement, India received many western pilgrims. India is the world's oldest and a popular medical tourism destination. England and Belgium are famous for medical tourism in European history; in 1326 Belgium got overnight fame after discovering the hot springs with Iron. In 16th century only they developed themselves into a medical resort, people from all over Europe travelled to Belgium to get rid of their disease and intestinal disorders. Asian countries like Thailand, Singapore, India, South Korea and Malaysia are attracting almost 1.3 million medical tourists every year from all over the world, according to Gupta (2007) and Connell (2006), it is an estimated figure that only Asia will generate more than US$ 4 billion by 2012 in hospitality sector since 1970s. Thailand is famous medical tourism destination for sex change operations and plastic surgery.

Singapore and Thailand are the neighbouring countries to Malaysia and are its competitors in the field of medical tourism. Singapore claims to be Asia's leading medical tourism hub with advanced technology and research capabilities. Two of the medical centres in Singapore got accreditation form Joint Commission International that could be the reason that Joint Commission International has their Asia Pacific region office in Singapore since 2006.

Table 1: Cost Comparison for Major Surgeries (US$)

Procedures	India	Thailand	Singapore	South Korea	Taiwan	Malaysia
Heart valve Replacement	7,000	22,000	16,300	31,750	27,500	12,000
Heart Bypass	7,000	22,000	16,300	31,750	27,500	12,000
Hip Replacement	10,200	12,700	12,000	10,600	8,800	7,500
Knee replacement	9,200	11,500	9,600	11,800	10,000	12,000
Gastric Bypass	9,300	13,000	16,500	9,300	10,200	12,700
Prostate Surgery	3,600	4,400	5,300	3,150	2,750	4,600
Facelift	4,800	5,000	7,000	6,650	10,000	6,400

Source: (Woodman, 2007)

According to Table 1, the cost comparison of major surgeries in Asia region shows that India and Malaysia are relatively cheaper than Singapore, Thailand, South Korea and Taiwan. It is evident that Malaysia is at moderate level in terms of cost of major surgeries.

Malaysia is top five medical tourism destinations among medical tourists and foreign investors, based on quality of services and its affordability in medical treatments (Brokenshire, 2008). Ministry of Health Malaysia has selected 35 private hospitals to promote Malaysia as a medical tourism destination, these hospitals are the members of the Association of Private Hospitals of Malaysia and have been awarded for internationally recognized standards such as quality in health, ISO 9001 etc. Among these 35 hospitals, 26 of them are located in Kuala Lumpur, Penang and Melaka (Health Tourism, 2011).

According to the World Health Organization (WHO), the overall performance of the Malaysian health care system is remarkably good. If we compare Malaysia with other industrialized countries, Malaysia devotes only 3 percent of its GDP to health but others devotes 6 percent or above. WHO results also show that Malaysia is being rated well for the distribution of health characteristics and services. In Malaysia, women live 2.7 to 3.7 years longer than men (Shepard, Savedoff, & Hong, 2002). According to the Ministry of Health Malaysia, the country has achieved success in establishing the state as regional hub for medical tourism by providing the excellent treatments and world class quality facilities and services. Malaysia's natural beauty and pleasant weather makes it more strategic destination with its competitive medical costs in attracting medical tourists for Malaysia (Tourism Malaysia, 2011).

According to Shah (2008), in Malaysia three major cities are actively involved in promoting medical tourism, out of which Melaka and Penang earn more than 70% of the medical tourism revenue. For Melaka and Penang, majority of the patients are Indonesians whereas patients from Singapore prefer Klang valley, including Kuala Lumpur region. Even Malaysian Government is not applying any exit tax for Indonesians who come for medical treatments from Medan and many companies are working as intermediaries between patients and hospitals.

Tourism Malaysia and Malaysia External Trade Development Corporation (MATRADE), organized many road shows, marketing and promotional activities including several healthcare missions to promote the medical tourism in several countries like middle east, Myanmar, Vietnam, Jakarta, Surabaya, China and Cambodia. Also at corporate level, several private companies like Country Height Health Tourism (CHHT) are attracting foreign medical tourists, which proposed to bring 10,000 tourists (estimated RM 48 million) from Indonesia and Europe for medical treatment purposes (Leng, 2007).

Several private hospitals like Sunway Medical Centre and Mahkota Medical Centre appointed their local agents in different countries and have their representatives in Indonesia to handle the enquires on-the-spot and interested individuals receive their tourism package including transfers, accommodation etc (Leng, 2007). There are more than 220 private hospitals in Malaysia but government has selected only 35 among them to ensure high quality services. These hospitals are listed at the Association of Private Hospitals of Malaysia (APHM) website (www.hospitals-malaysia.org).

According to Kazemi (2008), following factors are identified for medical tourist destination selection:

- Functions of Responsible State Organizations: The policies and proper planning by state government to promote medical tourism.
- Functions of Health Centres: To provide best quality treatments.
- Cooperation of Responsible Organizations: No communication gap between hospitals, government and third party entities like travel agents.
- Diversity and Variance of Medical Services: Huge range of medical treatments.
- Quality of Medical Services: One of the main characteristics which explains the service.
- Pricing of Medical Services: Cost is also a major concern for tourists before making any decision.
- Advertising the Medical Services: Promotional activates to let the world know about the services offered.
- Geography: Location with its popularity with natural beauty and pleasant weather.
- Security: Life and fiscal security is important for medical tourism in attracting medical tourists.
- As an Islamic State: Islamic (Muslim) country with easily available Halal food.
- Attractions of Medical Tourism Issues: Pre and post treatment between medical tourist and the service provider (specialist, hospital, government and travel agent).

Therefore, mentioned factors are identified to test the 'Satisfaction' level of medical tourists in Malaysia. According to (Yi, 1990), satisfaction is the process or a result. Same thing has been repeated by (Fornell, 1992) that satisfaction is an evaluation process or response to evaluation process. As many researchers defined the satisfaction in their own way but the main theme of all is same, that satisfaction is the response for some process. Kozak and Rimmington (2000) also mentioned that tourist satisfaction is important for any destination marketing, because only the satisfaction can pursue the decision of place, usage of services and products and choice of return.

Patient satisfaction increases the market value and image of hospital, satisfied patients gives the positive response, which is very much beneficial for the healthcare providers on a long term basis

(Zeithmal & Bitner, 2000). Factors such as caring, empathy, reliability and responsiveness have a direct impact on patient's satisfaction (Tucker & Adams, 2001). A study by Andaleeb (1998) shows that cost of medical treatments with quality facilities and services is important in patient satisfaction, if the physical facilities in the hospital such as clean environment, modern equipments and pleasant staff, it gives a good feeling and the patient satisfaction can be increased.

Methodology
The sample of the study consisted of medical tourists visiting Kuala Lumpur, Malaysia, for medical treatments in September and October 2013. Kuala Lumpur is the Federal City and one of the main attractive destinations for medical tourism in Malaysia. 20 hospitals were selected on the basis of a non-probability convenience sampling technique (Amick & Walberg, 1975). After permission had been gained from the hospital Management, 100 questionnaires were distributed to medical tourists. Of these, 72 questionnaires were returned representing 72% response rate to the original sample of the study. Structured questionnaire has been used to collect and gather the data. The measurement scale of questionnaire for all items was based on 5-Likert scale, and that scale range from '1' being 'very low' to '5' being 'very high'. The current measurement scale was based on eleven (11) independent variables such as 'Functions of Responsible State Organizations (6-items)', 'Functions of Health Centres (11-items)', 'Cooperation of Responsible Organizations (8-items)', 'Diversity and Variance of Medical Services (2-items)', 'Quality of Medical Services (2-items)', 'Pricing of Medical Services (4-items)', 'Advertising the Medical Services (10-items)', 'Geography (5-items)', 'Security(2-items)', 'As an Islamic State(3-items)', and 'Attractions of Medical Tourism Issues (2-items)' has been used to evaluate the dependent factor 'Satisfaction (2-items)' level and to test the hypotheses. All variables have been derived/adapted from Kazemi (2008). There were a total of 57-items measuring eleven (11) independent and one (1) dependent variable, related to particular study to test hypotheses respectively.

Hypotheses of the Study
- H^1: Responsible State Organization exerts significant positive effect on Satisfaction of medical tourists in Malaysia.
- H^2: Functions of Health Centres exerts significant positive effect on Satisfaction of medical tourists in Malaysia.
- H^3: Cooperation of Responsible Organizations exerts significant positive effect on Satisfaction of medical tourist in Malaysia.
- $H^{4.}$ Diversity of Medical Services exerts significant positive effect on Satisfaction of medical tourists in Malaysia.
- H^5: Quality of Medical Services exerts significant positive effect on Satisfaction of
- Medical tourists in Malaysia.
- H^6: Pricing of Medical Services exerts significant positive effect on Satisfaction of medical tourists in Malaysia.
- $H^{7.}$ Advertising the Medical Services exerts positive significant effect on Satisfaction of medical tourists in Malaysia.
- H^8: Geography exerts significant positive effect on Satisfaction of medical tourists in Malaysia.
- H^9: Security exerts significant positive effect on Satisfaction of medical tourists in Malaysia.

- $H^{10:}$ As an Islamic State exerts significant effect on Satisfaction of medical tourists in Malaysia
- H^{11}: Attractions of Medical Tourism exerts significant effect on Satisfaction of medical tourists in Malaysia

Descriptive analysis, such as frequencies are calculated, reliability analysis is performed, correlations of study variables is tested and regression analysis is performed to test the hypotheses.

Findings

Demographic Breakdown of the Sample

Results shows that 52.8% of the respondents were males. Majority of the respondents fall under the age group '41-50' (44.4%), which represents a mature medical tourists (patients) in age. In the case of income level, most of the respondents had monthly income ranging between 'US\$ 5,001-10,000' (40.3%), which represents that medical tourists belongs to a high-income group. In terms of respondents' education level, majority of the medical tourists were degree/diploma holders (55.6%). In terms of respondents' nationally, majority of the respondents are found to be Indonesians (23.6%).

Reliability of the Study

Table 2 demonstrates that the overall reliability (internal consistency) of the study was found to be coefficient alpha 0.97, which is deemed acceptable (Churchill, 1979; Nunnally, 1978), which suggests that the "measures [were] free from random error and thus reliability coefficients estimate the amount of systematic variance" (Churchill, 1979, p. 4). Reliability analysis is well known as to test the 'degree of consistency between measures of the scale' (Mehrens & Lehman, 1987), when each factor (study variables) such as 'Functions of Responsible State Organizations', 'Functions of Health Centers', 'Cooperation of Responsible Organizations', 'Diversity and Variance of Medical Services', 'Quality of Medical Services', 'Pricing of Medical Services', 'Advertising the Medical Services', 'Geography', 'Security', 'As an Islamic State', 'Attractions of Medical Tourism Issues', and 'Satisfaction' was examined, it was found to be reliable with coefficient alpha more than 0.70 at aggregate level, cut-off point (Churchill, 1979; Nunnally, 1978). The high alpha values indicated good internal consistency among the items, and the high alpha value for the overall scale indicated that convergent validity was met (Parasuraman, Berry & Zeithaml, 1991).

Table 2: Reliability of the Study

Construct	Cronbach Alpha (α)	No. of Items
Functions of Responsible State Organizations	0.83	6
Functions of Health Centres	0.89	11
Cooperation of Responsible Organizations	0.88	8
Diversity and Variance of Medical Services	0.67	2
Quality of Medical Services	0.68	2
Pricing of Medical Services	0.74	4
Advertising the Medical Services	0.90	10
Geography	0.86	5
Security	0.82	2
As an Islamic State	0.79	3
Attractions of Medical Tourism	0.81	2
Satisfaction	0.56	2
Overall	0.97	57

Correlations of the Study Variables

In the present study correlation analysis was employed since "correlation analysis involves measuring the closeness of the relationship between two or more variables; it considers the joint variation of two measures" (Churchill, 1995, p. 887). In Table 3, the results of correlation analysis are significant at the 0.01 level. When the correlation coefficients matrix between study variables is examined, no correlation coefficient is equal to 0.90 or above. This examination provides support for the discriminant validity about this study, which means that all the constructs are different/distinct (Amick & Walberg, 1975).

Table 3: Correlation of the study Variables

Scales	Variables											
	1	2	3	4	5	6	7	8	9	10	11	12
1	1											
2	.691**	1										
3	.681**	.657**	1									
4	.565**	.604**	.420**	1								
5	.560**	.556**	.449**	.730**	1							
6	.574**	.561**	.630**	.652**	.569**	1						
7	.453**	.636**	.508**	.567**	.460**	.658**	1					
8	.535**	.519**	.520**	.347**	.403**	.420**	.535**	1				
9	.576**	.643**	.584**	.561**	.532**	.647**	.759**	.573**	1			
10	.489**	.604**	.438**	.389**	.377**	.651**	.532**	.647**	.759**	1		
11	.420**	.489**	.604**	.438**	.389**	.377**	.651**	.645**	.611**	.625**	1	
12	.519**	.439**	.439**	.480**	.435**	.497**	.420**	.475**	.756**	.544**	498**	1

Note: ** All the correlations are significant at the 0.01 level (2- tailed)

Regression Analysis

Since regression analysis is "the technique used to derive an equation that relates the criterion variables to one or more predictor variables; it considers the frequency distribution of the criterion variable, when one or more predictor variables are held fixed at various levels" (Churchill, 1995, p. 887). Table 4 shows that the regression analysis was used having 'Satisfaction' as the dependent variable and 'Functions of Responsible State Organizations', 'Functions of Health Centers', 'Cooperation of Responsible Organizations', 'Diversity and Variance of Medical Services', 'Quality of Medical Services', 'Pricing of Medical Services', 'Advertising the Medical Services', 'Geography', 'Security', 'As an Islamic State', and 'Attractions of Medical Tourism Issues' as the independent variables. It was necessary to use the regression analysis to predict the 'Satisfaction' level of medical tourists and the obtained results showed that there was a positive correlation with R^2 of 0.634 and F-value of 10.572 at a significance level p<0.001. It is found that 'Functions of Responsible State Organizations (β=0.068)', 'Functions of Health Centres (β=-0.181)', 'Cooperation of Responsible Organizations (β=0.079)', 'Diversity and Variance of Medical Services (β=0.114)', 'Quality of Medical Services (β=0.167)', 'Pricing of Medical Services (β=-0.057)', 'Advertising the Medical Services (β=-0.008)', 'Security (β=0.084)', 'As an Islamic State (β=0.043)', and 'Attractions of Medical Tourism Issues (β=0.068)' does not exerts significant positive effect on 'Satisfaction' of the medical tourists, making hypotheses H_1, H_2, H_3, H_4, H_5, H_6, H_7, H_9, H_{10} and H_{11} to be rejected. However, it was found that 'Geography (β=0.620)' exerts significant positive effect on 'Satisfaction' of the medical tourists, making Hypothesis H_8 to be Accepted. As majority of the study hypotheses are rejected, relevant authorities should consider improvements in the respective areas. Practitioners, hospital authorities and the Government

should work and cooperate together effectively and must notice the declining points which are highlighted in this study to serve the medical tourists more efficiently.

Moreover, 'Functions of Responsible State Organizations', 'Functions of Health Centres', 'Cooperation of Responsible Organizations', 'Diversity and Variance of Medical Services', 'Quality of Medical Services', 'Pricing of Medical Services', 'Advertising the Medical Services', 'Geography', 'Security', 'As an Islamic State', and 'Attractions of Medical Tourism Issues' jointly explain 64% of the variance (R^2) in the 'Satisfaction', which is very good. Overall, the results indicate that 'Geography' is the predictor of 'Satisfaction' of the medical tourists.

Table 4: Regression Analysis

Dependent Variable: Satisfaction				
Independent Variables	**β**	**t- value**	**p- value**	**Hypothesis**
Functions of Responsible State Organizations	0.068	0.527	0.600	Rejected
Functions of Health Centers	-0.181	-1.345	0.184	Rejected
Cooperation of Responsible Organization	0.079	0.614	0.541	Rejected
Diversity and Variance of Medical services	0.114	0.829	0.410	Rejected
Quality of Medical Services	0.167	1.389	0.170	Rejected
Pricing of Medical Services	-0.057	-0.394	0.695	Rejected
Advertising the Medical Services	-0.008	-0.057	0.955	Rejected
Geography	**0.620**	**5.498**	**0.000**	**Accepted**
Security	0.084	0.614	0.542	Rejected
As an Islamic State	0.043	0.331	0.742	Rejected
Attractions of Medical Tourism	0.068	0.527	0.600	Rejected

Recommendations

The results of the present study have a number of practical implications for practitioners, hospital authorities, Ministry of Health, Tourism Ministry and third party enterprises, who are directly or indirectly engaged in attracting medical tourists.

- The findings of this study are important for Ministry of Health and Tourism Ministry that information material (brochure) should be published in multi-lingual to attract more Indonesians and other nationals.
- Practitioners and hospital authorities should confirm that the staffs of the hospitals are well trained and can speak adequate English.
- Practitioners and hospital authorities should ensure that information counters or reception desks are separated among International and Domestic patients so that a personal attention can be given medical tourists.
- Practitioners and hospital authorities should provide personal transportation services to medical tourists under treatment.
- Practitioners and hospital authorities promoting medical tourism in Malaysia should get engage with local travel and tour agencies to develop tourism products (such as historical, site seeing, shopping tours etc) for medical tourists, patients, with extra care for their early relief and make good feel.

One of the apparent limitations of this study is the sample size, which is very small and also limited to private hospitals in Kuala Lumpur, Malaysia. A study with different sample size and

several locations in Malaysia may provide fruitful results for the evaluation of medical tourism destination selection.

Conclusion

Findings of the study highlight that medical tourism in Malaysia has a good potential and enormous opportunity to increase revenues. The current study was aimed to assess factors for medical tourism destination selection for Malaysia. The finding shows that overall reliability of the study is at an acceptable level and 'Geography' of Malaysia is found to be an important factor which has a direct and positive impact on patients' satisfaction. It has been found Malaysia is famous destination for Indonesians as a medical tourism destination. The findings of the study are consistent with the findings of Leng (2007). This study provides useful guideline for practitioners, hospitality management authorities, tourism ministry and third party enterprises, who are engaged in marketing and attracting medical tourism for Malaysia.

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