

# The Effects of Service Quality, Perceived Value, Satisfaction and Trust on Foreign Patients' Loyalty of Medical Tourism in Malaysian Hospitals

by

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A thesis submitted in fulfillment of the requirements for the degree of Doctor of Philosophy

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# **DEDICATION**

In Memory of my Loving Father and Mentor Alhaj. Ibrahim Mohamad Aljumah (1942-2009)

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All praises are to Allah, the Most Gracious and the Most Merciful, and peace and blessing are upon prophet Muhammad (SAW)

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#### LIST OF ABBREVIATIONS

WHO World Health Organization

DC Developing Countries

MHTC Malaysia HealthCare Travel Council

EPU Economic Planning Unit

JCI Joint Commission International

MOH Ministry of Health

MATRADE Malaysia External Trade Development Corporation

APHM Association of Private Hospitals of Malaysia

MSCI Medical Service Coordination International

KPJ Kumpulan Perubatan Johor

B2B Business to Business

IS Information System

ERP Enterprise Resource Planning

ISP Internet Service Provider

BST Broad-Scope Trust

MSQH Society for Quality in Health

KMC Kedah Medical Central

PLS-SEM Structural Equation Modelling

SPSS Statistics Package for Social Science

VIF Variance Inflation Factor

AVE Average Variance Extracted

MTSL Medical Tourism Service Loyalty

# LIST OF SYMBOLS

Sample Size N

Cronbach's Alpha α

β Beta

 $F^2$ Effect Size

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# KEBERKESANAN KESAN PERKHIDMATAN, PENILAIAN, KEPUASAN DAN KEPERCAYAAN BAGI KESETIAAN PESAKIT WARGA ASING TERHADAP HOSPITAL PERUBATAN PELANCONGAN DI MALAYSIA

#### **ABSTRAK**

Pelancongan perubatan adalah salah satu sektor pelancongan yang paling pesat berkembang di dunia, dan menyumbang kepada pembangunan ekonomi di kebanyakan negara. Kajian terdahulu menganggarkan bahawa industri pelancongan perubatan di seluruh dunia menjana hampir USD 60 bilion setahun, dengan Kadar pertumbuhan kirakira 20% setiap tahun. Di Malaysia, industri pelancongan perubatan dianggap sebagai salah satu komponen ekonomi yang paling penting kerana prospeknya yang meluas. Pesakit warga asing merupakan sasaran yang penting bagi perkhidmatan pelancongan hospital. Di Malaysia, sektor perubatan pelancongan menghadapi persekitaran yang sangat kompetitif, khususnya dari negara-negara Asia seperti Thailand dan Singapura. Banyak kajian telah menunjukkan bahawa untuk mengekalkan pemasaran kesetiaan bagi pesakit warga asing adalah satu cabaran. Oleh itu, objektif kajian ini adalah untuk mengkaji kesan mediasi dan kesan moderasi ke atas kualiti perkhidmatan dan kesetiaan pesakit terhadap pelancongan perubatan di Malaysia. Justeru itu, kajian ini mengkaji kesan moderasi nilai dan kepercayaan. Penilaian penyerderhanaan terhadap hubungan diantara kualiti perkhidmatan dan kepuasan serta penyerderhanaan hubungan diantara kepuasan dan juga kesetiaan pesakit warga asing. Tambahan pula, kepuasan merupakan perantara diantara kepuasan dan kesetiaan pesakit warga asing, Pendekatan kuantitatif digunakan, di mana sebanyak 640 soal selidik telah diedarkan kepada pesakit warga asing di Malaysia. Daripada jumlah tersebut, 389 maklum balas diguna untuk analisis dengan Kadar keputusan sebanyak 60%. Data dianalisa menggunakan Pemodelan Persamaan Struktur Separa Minimum (PLS-SEM). Keseluruhannya, penemuan menunjukkan hubungan yang ketara antara kualiti perkhidmatan dan kepuasan juga kesetiaan pesakit warga asing. Selain itu, kepuasan juga mempunyai kaitan dengan kesetiaan terhadap pesakit warga asing di Malaysia. Kepuasan memediasikan hubungan diantara kualiti perkhidmatan dan kesetiaan pesakit warga asing. Kajian ini menyumbang kepada pengetahuan dimana nilai yang dirasa sebagai moderator diantara kualiti perkhidmatan dan kepuasan serta kepercayaan sebagai pemboleh ubah moderasi diantara kepuasan dan kesetiaan pesakit warga asing terhadap pelancongan perubatan di Malaysia. Kajian ini menyumbang kepada teori dengan mengesahkan sifat-sifat Teori "Pengawalan Sikap, Niat dan Kelakuan Sendiri" berkaitan niat pelanggan untuk bertahan lebih lama bagi mewujudkan hubungan yang kukuh dengan hospital di Malaysia.

Kata kunci: Kualiti Perkhidmatan, Kepuasan, Nilai yang dirasakan, Amanah, Kesetiaan pesakit warga asing, Pelancongan Perubatan Malaysia

### THE EFFECTS OF SERVICE QUALITY, PERCEIVED VALUE, SATISFACTION AND TRUST ON FOREIGN PATIENTS' LOYALTY OF MEDICAL TOURISM IN MALAYSIAN HOSPITALS

#### **ABSTRACT**

Medical tourism is one of the fastest-growing tourism sectors in the world, thus significantly contributing to economic development in many countries. Previous studies have estimated that the worldwide medical-tourism industry generates nearly USD 60 billion per year, with a growth rate of about 20% annually. In Malaysia, the medical tourism industry is considered as one of the most important components of the economy because of its great prospects. Foreign patients are an important target market for medical tourism service hospitals. In Malaysia, medical tourism is facing a very competitive environment, specifically from Asian countries like Thailand and Singapore. Many studies have shown that maintaining foreign patients' loyalty is a very challenging task for marketers nowadays. Therefore, the objective of this study is to investigate the moderated mediation effects of service quality on patients' loyalty to medical tourism in Malaysia. Hence, this study examines the moderating effect of perceived value and trust. Perceived value moderates the relationship between service quality and satisfaction, whereas trust moderates the relationship between satisfaction and foreign patients' loyalty. In addition, satisfaction is a mediator between service quality and foreign patients' loyalty. A quantitative approach was adopted, whereby 640 questionnaires were distributed to foreign patients in Malaysia. Out of this number, 389 responses were finally found usable for analysis, which shows a 60% response rate. Data were analysed using Partial Least Squares-Structural Equation Modelling (PLS-SEM). Overall, the findings show significant relationships between service quality and satisfaction and foreign patients' loyalty. Also, satisfaction is significantly related to foreign patients' loyalty in Malaysia. In addition, satisfaction mediates the relationship between service quality and foreign patients' loyalty. This study could contribute to knowledge on perceived value as a moderator between service quality and satisfaction as well as trust as a moderating variable between satisfaction and foreign patients' loyalty to Malaysian medical tourism. In addition, this study contributes to theory by validating the attributes of the Theory of "Self-Regulation of Attitudes, Intentions and Behaviours" regarding patients s' intention to stay longer in order to create a solid relationship with Malaysian hospitals.

Keywords: Service Quality, Satisfaction, Perceived Value, Trust, Foreign patients' loyalty, Medical Tourism Malaysia

#### **CHAPTER 1: INTRODUCTION**

#### 1.1 Background of the Study

Medical tourism is one of the fastest-growing tourism sectors in the world, which has significantly contributed to the economic development in several countries (Han & Hyun, 2015; Heung, Kucukusta, & Song, 2011). Previous studies have estimated that the global medical-tourism industry makes nearly USD 60 billion for every year, with a growth amount of about 20% yearly (Heung, Kucukusta, et al., 2011; Liu & Chen, 2013). Medical tourists are increasing daily, and it has been noticed that the wages in the medical tourism sectors have dramatically increased. Therefore, skilled medical workers are highly in demand, and hospitals are concerned about maintaining excellent service quality by retaining the best talented and skilled medical staff. Otherwise, these invaluable staff members would leave the country to look for better wage rates and more benefits (Beladi, Chao, Ee, & Hollas, 2015). Recently, medical tourism has grown radically primarily due to the high charges of treatment in industrialized countries, the long waiting lists at home country, the relative affordability of worldwide air travel, the good monetary trade rates, and the new innovation and abilities in the destination countries (Connell, 2006). These factors have made fundamental changes in the medical tourism industry.

Furthermore, a few Asian nations, for example, Thailand, Singapore, India, and Malaysia, are well known for their medical tourism industry. For example, Thailand is known for the best current destination for cosmetic surgeries. Singapore is best known for complex surgical procedures. India is also best known for its specialization in cardiac

surgeries, and Malaysia has gained popularity in modern healthcare infrastructure and the presence of highly skilled medical specialists.

Asia can be observed to remain as the top medical tourist destination, and there is no doubt that countries, like South Korea, Singapore, India, Taiwan, Thailand, Malaysia, Philippines, and Vietnam, are competing to provide the best service quality and satisfaction to their foreign patients. According to the KPMG International Report (2011), it was estimated that the market for medical tourism in Asia exceeded USD 6 billion with approximately of more than four million medical tourists who have visited Asia annually. In addition, according to a report by VISA and Oxford Economics (2015), Nation-wide (the healthcare system in Thailand) medical tourists contributed of about USD 4.7 billion to Thailand's economy. A survey conducted by Asset and Co (2012) and Nikko Asset Management (2012) indicated that Thailand registered 2.5 million foreign patients, and earned THB121.6 billion (USD3.73 billion) in revenue. Moreover, in 2012, Singapore received around 850,000 patients, and earned SGD1.1 billion (USD809 million).

Although medical tourism has developed in several regions, Southeast and East Asia have been prominent in this area (ESCAP, 2009). According to World Health Organization (WHO) in 2006, many developing countries (DCs), such as India, Thailand, and Malaysia, are promoting medical tourism as "First World Treatment at Third World Prices" (Bookman & Bookman, 2007). In addition, these countries are recognized as Asian medical tourism destinations, and have actively promoted their services to international patients since the 1990s. Having seen that medical tourism is an effective way to bring in foreign funds since the Asian currency crisis of 1997, these countries have issued facilitating regulations, and invested both money and human resources in this industry (Connell, 2006; Henderson, 2009; ESCAP, 2009).

#### 1.2 Medical Tourism

Medical care is a primarily local affair. Nowadays, it has become an increasingly globalized business. Patients are traveling thousands of kilometres to get better or more affordable services than their own countries. Basically, the idea of travelling from the patient's home country to another country for the purpose of obtaining medical, surgical, dental, and wellness care is known as "medical tourism", "health tourism", or "wellness tourism" (Gatrell, 2011).

Medical tourism seems to be a specialist activity for foreign patients, which has the potential to be an important and sustainable market segment for several destinations, and in the future. The combination of quality medical services and tourism attributes provides a real opportunity for these destinations to capitalize on the potential of this market. In addition, foreign patients have been traveling to seek better hospitals for many years. In the past, foreign patients travelled from the less developed economies countries to the more developed ones. However, recently, the direction of travelers has changes since many emerging economies are attracting patients who seek treatment from developed economies countries (Wongkit & McKercher, 2013). Hence, the growth of the medical tourism market has motivated many countries to compete in attracting foreign patient clients. In this regard, several destination countries have been actively involved in the development and promotion of medical tourism by increasing their medical locations and improving related services for international travelers (Crozier & Baylis, 2010; Heung et al., 2011). Table 1.1 provides comparative information regarding medical treatment costing between USA, Malaysia, Singapore, and Thailand.

Table 1-1: Cost of Treatment and saving between USA and Asian Counters

procedure	US Cost	Malaysia	Thailand	Singapore
Average Saving		65% to 80%	50% to 70%	30% to 45%
CABG	88,000	20,800	23,000	54,500
Valve Replacements	85,000	18,500	22,000	49,000
Hip Replacement	33,000	12,500	16,500	21,400
Knee Replacement	34,000	12,500	11,500	19,200
Spinal Fusion	41,000	17,900	16,000	27,800
IVF Cycle	15,000	7,200	6,500	9,450
Gastric Bypass	18,000	8,200	12,000	13,500
4-implant Porcelain Bridge	23,000	7,800	10,500	12,000
Implant-supported Dentures (Upper and Lower)	10,500	3,800	3,900	6,400
Facelift	12,500	5,500	5,300	8,750
Rhinoplasty	6,200	3,600	4,300	4,700

Source: Patients beyond Borders 2014.

In 2013, it was revealed that there is a huge saving difference to get the medical treatment. Malaysia was placed first, where the average saving is between 65 % to 80 %. Thailand was placed second, where the average saving is between 50% to 70%, whereas Singapore was placed third, where the average saving is between 30% to 45% (Huei, 2016).

# 1.3 Medical Tourism in Malaysia

With a rowing stream of healthcare travelers flocking to the country, Malaysia is definitely the new rising star in medical tourism. The Southeast Asian nation has seen staggering growth in the number of medical tourists checking in its hospitals over the past several years for example Malaysia from 643,000 patients in 2011 to more than one million last year, according to data from Malaysia healthcare travel council (MHTC, 2017).

In Malaysia, the medical tourism industry has been considered as an important alternative source of economic growth. The growth of medical tourism in Malaysia is

reinforced by the government through national development planning and tourism campaigns. In addition to tax concessions provided to medical tourism providers and tourism office campaigns for medical tourism, the medical tourism industry has received aids in terms of land purchases and infrastructures (Connell, 2013). The Malaysian government and related investors have been making efforts to improve the country's infrastructure, facilities, and services to be located as a favorite health tourism destination in the Asia area (G. Musa, Thirumoorthi, & Doshi, 2012).

The main target market for Malaysia is the neighboring countries such as Indonesian medical tourists who constitute the majority of the medical tourists to Malaysia (Ghazali, Darmesh, Kee Mun, & Thinaranjeney, 2012). At the same time, Malaysia can utilize its Islamic background and knowledge to attract outbound patients from the Arab and Islamic countries. In this Southeast Asian country, Muslims make up about 60 percent of the population (Mohezar, Moghavvemi, Zailani, 2015; Trinna Leong, 2014).

In addition, Malaysia's favorable exchange rate, political and economic stability, and high literacy rate have contributed in attracting medical tourists and investors (Yanos, 2008). Moreover, other several factors that make Malaysia a popular health tourism destination in the world included:

- 1. Top-notch health care; served by highly qualified medical practitioners, most of whom have gain international acclaim for their expertise, Malaysia's hospitals offer a wide range of niche medical specialities.
- 2. Excellent and affordable healthcare; tightly regulated by the ministry of health Malaysia, the country's world class healthcare is competitive and attractively affordable without comprising the quality of treatments.

- 3. State-of-the- art facilities; medical institutions come fully equipped with some of the most advanced facilities such as diagnostic equipment cardiac catheterisation, virtual colonoscopy and PET scans.
- 4. Confidentiality and safety assured; our medical professionals adhere to the highest codes of professional conduct and ethic.
- 5. Fascinating Malaysia; Malaysia is blessed with a tropical climate, lush greenery, idyllic island, fascinating historical sites and a kaleidoscope of culture the perfect place to relax and recuperate post- treatment.
- 6. The Malaysia hospitality; experience the hospitality of our warm, friendly people. Feel right at home as English is widely spoken and interpreters are readily available anytime.
- 7. Halal Friendly; Malaysia is fast making a name for itself among Muslim healthcare travellers. In addition to the cultural affinity, the country is a going global halal hub with halal facilities and medical alternatives widely available. (MHTC, 2017).

Medical bills and hospitalization costs in Malaysia are relatively low in comparison of the cost of a similar service in other countries, as shown in Table 1.1. In addition, the medical expertise in Malaysia could be highly competitive. Since the introduction of medical tourism in the modern industry platform, Malaysia is regarded as one of the most recognized developing countries and has achieved a great success in this industry, particularly in the Asian region (Huei, 2016). As a result, Malaysia has become a new member in the medical tourism market, thus competing with experienced, and branded names. This has helped in attracting the attention of foreign patients. According to International Living, a lifestyle magazine (2014), it was reported that the Malaysian medical tourism earned the third place for "best and most affordable healthcare".

Table 1.2 below illustrates that the number of medical tourists in Malaysia increased tremendously during the period from 2004 to 2016. However, according to MHTC (2016), it was found a 4% decrease in the number of foreign patients from 882,000 in 2014 to 859,000 in 2015. Medical tourists in Malaysia increased from 102,946 in 2003 to 770,134 in 2013 with an estimated revenue of RM 680 million in 2013.

Table 1-2: Number of Foreign Patients and Receipts in Malaysia

	Foreign Patients	Receipts	Source X
	Numbers	(RM) Millions	
2004	174,189	105.92	Socio-economic Research Institute (2009); (Huei, 2016)
2005	232,161	150.92	Socio-economic Research Institute (2009); (Huei, 2016)
2006	296,687	203.66	Socio-economic Research Institute (2009); (Huei, 2016)
2007	341,288	253.84	Socio-economic Research Institute (2009); (Huei, 2016)
2008	374,063	299.1	The New Straits Times (2009); (Huei, 2016)
2009	336,225	288.21	The Sun Daily (2009); (Huei, 2016)
2010	392,956	378.95	Business Time (2012); (Huei, 2016)
2011	643,000	537	MHTC (2017)
2012	720,00	603	MHTC (2017)
2013	881000	727	MHTC (2017)
2014	882,000	777	MHTC (2017)
2015	859,000	914	MHTC (2017)
2016	921,000	1.2 bill	MHTC (2017)

other countries shown in Table 1.1, by average savings between 65% to 80% if compared to the USA (Huei, 2016). Second, Malaysia has a low charge of living for relatives or care givers of the patients who choose to stay in Malaysia during treatment period (Penang Monthly Review, 2013).

Moreover, the establishment of several private medical centers constitutes a strong reason for making Malaysia a good choice for foreign patients. Most private

medical centers have accomplished certification for worldwide recognized quality standards, such as, ISO 9002 or the Malaysian Society for Quality of Health (Musa et al., 2012). These institutions have been developed according to world standards in terms of equipment, medical facilities, laboratories, professional staff, a conducive work environment, modern medical machines, and motivated support staff. Among additional positive initiatives taken by various hospitals is the establishment of international customer departments and having links with several travel agencies and hotels. For example, Penang is a condensed medical place accounting for about 52 to 53 percent of Malaysia's healthcare tourism revenue. The Penang state recorded a revenue of RM 370 million in 2013, an almost 20% increase compared to RM 314 million revenue in 2012. Penang Chief Minister stated "Penang is fast becoming a leading provider of medical tourism in the country" (Establishment Post, 2014) which encompasses all hospitals embraced by Malaysia Healthcare Travel Council. Another area with a high concentration of medical tourists is the Klang Valley (close to Kuala Lumpur and towns in the state of Selangor), which calculated about 35% of the total medical centers in Malaysia. The report from private hospitals in this area showed between 5% and 15% of admissions to be medical tourists, such as Sime Darby hospitals that estimated a share of 6% to 10%, and Gleneagles hospitals at around 15%.

Thus, the number of private hospitals has increased widely since 1993 due to several reasons. First, the Malaysian people have their own perceptions towards public hospitals. In other words, they believe that these public hospitals provide low quality health care services (Sohail, 2003). on the other side Ganasegeran, Perianayagam, Abdul Manaf, Ali Jadoo, and Al-Dubai(2015) found that, satisfaction was low in terms of service orientation of doctors, particularly the "time spent with doctor," "interpersonal manners," and "communication" during consultations. Gender, income level, and