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Original Article

Medical Tourism in Malaysia: Prospect and Challenges

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Abstract

Background: Tourism, combined with the phrase medical, seems to be a new form of tourism which has gained huge popularity in recent decades. Though, a number of literatures available with regard to the tourism industry and the competitiveness of the destination, however, the major aspects which determine the satisfaction of medical tourists are hardly focused specifically on Malaysia. There is a lack of empirical evidence in this area of study which needs to be bridged. Hence, this study aimed at investigating the various factors contributing towards the development of medical tourism in Malaysia.

Methods: As the purpose of the research was to find out various factors contributing towards the development of medical tourism in Malaysia, so this study used Structural Equation modeling (SEM) for data analysis. The target population for this study consisted of the medical tourists coming to Malaysia with the primary intension of seeking medical procedures other than sightseeing. A total sample size of 266 was collected through non-probability judgment sampling during the period between December 2012 and February 2013.

Results: The result confirms that destination competitiveness and service quality play an important role in the medical tourist's mind towards medical tourism aspect in Malaysia. Thus, Malaysia need to promote various medical success stories together with the services they offer to attract more foreign patients.

Conclusion: This study contributes to the theoretical development in the tourism industry by offering the structured relationship among various aspects contributing towards the development of medical tourism in Malaysia.

Keywords: Medical tourism, Destination competitiveness, Service quality, Customer service

Introduction

Venturing abroad for medical care is not a new occurrence for the elites of developed countries. For this social group, the usage of medical care offshore is part of a standard design of intake of foreign goods and services, which in turn possibly cannot be observed. It has been promoted by many countries around the world owing to the fact that the idea produces these countries many benefits. Consequently, medical tourism is not just practical but also the economic approach for people to savor their vacation and obtain medical cure within the very same time. Tourism, combined with the phrase medical, seems to be a new form

of tourism which has gained huge popularity in recent decades (1). This is due to multiple reasons such as; the increased demand for better health-care (2), rising healthcare costs in the US and many Europe countries (3) and the tough visa regulations imposed by the US and many European countries due to the 9/11 incident (4). Hence, many countries around the world have started promoting medical tourism to gain from this emerging market (1).

Among the medical tourism providers, Asian countries such as Singapore, Thailand, Hong Kong, Malaysia, the Philippines and India are

viewed being probably the most likely places for producing medical tourism due to their natural recourses and excellent quality service together with reduced price (5). Due to the very low labor expense in these Asian countries, customers are able to save up to 40 to 60 percent comparing to US or Western European countries (6).

Nonetheless, the overall hospitality industry is under severe pressure due to huge competitive market (7). The author further added that, to remain competitive, focusing on customer's satisfaction has become very important as they are core for their business success. Being part of the overall hospitality industry, medical tourism sector also requires special focus on their customers for future sustainability. Though, there is relevant literature available with regard to the tourism industry and the competitiveness of the destination, however, the major aspects which determine the satisfaction of medical tourists are hardly focused specifically on Malaysia. Thus, there is a lack of empirical evidence in this area of study which needs to be bridged. Hence, this study aimed at investigating the various factors contributing towards the development of medical tourism in Malaysia.

Destination Competitiveness

There is no agreed definition of the term "destination". Hence, the task of defining and explaining what actually composes a destination is quite difficult to succinctly describe. International Association of Scientific Experts in Tourism (AIEST) proposes that, "a destination is a travel objective which the consumer wishes to visit because of certain attractions it offers. These can be natural or manmade; existing before tourism or created for the tourist" (8). Seaton and Bennett supported a different perspective of the concept. They defined it as "the catalyst link that precipitates all other industries in the tourism sector" (9). Destinations are composed of a series of values, tangibles and intangibles, in a complex system of resources (10). According to Carter and Fabricius "Destination is a physical location where the tourist spends at least one night. It contains tourist attractions, products, and related services that are necessary to meet the stay of a tourist in the place at least for one day" (11). WTO stated that, destinations are composed of specific characteristics that attract visitors because of their "factual or perceived attractiveness" (12).

The promotion of destination is widely discussed in academic literature (13-15). Moreover, special emphasis has put on the destination promotion by various National Tourism Organizations (NTO) (16-18). Furthermore, an evaluation of its effectiveness has been held by many authors (19-21). Many studies; either explicitly or implicitly, examined the influence of marketing efforts of different NTOs on the choice of destination made by tourists. For example, Webster modeled the promotional efforts of NTOs through the presence of the major size of NTO's offices abroad (22). Lim pointed out that the marketing expenditures as one of the major explanatory variables in the growth of tourism (23), and Webster and Ivanov have assessed the effectiveness of the promotion through the number of travel tourism fairs (21). In addition, due to the tremendous development in information and communication technology (ICT), information regarding the medical procedures is now readily available and easily accessible. Moreover, various promotional campaigns through internet by the hospitals have boosted the confidence of the foreign patients as they can get their needed information much easier and faster. Internet also enabled significant cost savings for both the patients and the hospitals (24). Moreover, increasing promotional campaigns by the governments and the efforts of travel agencies related to medical tourism has significantly boosted the demand for medical tourism worldwide (25).

There is also an enormous influence of marketing behind the new trends of medical tourism in Malaysia. Realizing its tremendous potential and its enormous economic benefits, the Government has and is still actively promoting medical tourism to various countries to induce foreign patients to seek medical treatment in Malaysia, all in the aim to make Malaysia a medical tourism hub in the region. Adding to this, the Malaysian government has also launched its official website (www.medicaltourism.com.my) to promote medical tourism through the internet. Moreover, to

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expedite medical tourism, the Malaysia Healthcare Travel Council (MHTC) was officially launched on 21 December 2009 with the purpose of restructuring the healthcare sector to attract more foreign patients (26). In addition, various promotional activities were held in different countries to boost the country image for Malaysia by various authorities (e.g. Ministry of Health, Ministry of Tourism, Association of Private Hospitals of Malaysia, Malaysian Association of Tours and Travel Agencies, Malaysia Airlines, and Malaysian External Trade Development Corporation) (27). Due to these extreme efforts, Malaysia has gained much popularity as a medical tourism destination in recent years.

H1: There is a significant relationship between destination image and medical tourism in Malaysia.

Service Quality

In this rapidly growing consumer-oriented health industry, quality has become the integral part. Without providing quality services, no business can survive. Bookman and Bookman stated that people from rich countries are traveling to less developed countries because of less expensive but high quality medical care (28). Quality is a very important concern for patients while planning to get treatment.

Grönroos focused on two major components of the service quality in the healthcare sector: one is technical or mechanical quality and the other is serviceable or functional quality (29). In the healthcare industry, technical equipment and other related medical diagnoses systems is core for patients' checkup for their treatment. Functional quality measured by the service offered by the healthcare centers such as services of staffs, nurses, administrations and most importantly the doctors towards the patient and their assistants are of vital importance. It has been found, from different healthcare research, that patients mostly give priority to the functional quality rather than the technical quality though the technical quality may not be satisfactory (30). However, for the medical patient, the technical quality should be a prime object because the proper treatment of patients largely depends upon the proper diagnoses of the diseases through up-to-date equipment.

Thus, delivering quality services to the customers is a must in order to attract more foreign patients (31, 32). Lam found in his study that many patients could differentiate the performance in caring and curing that are provided by the medical center service providers (33). Thus, the personnel support service are expected to be approachable, dependable, gracious, sincere and capable by the customers. Kiran also found in his study that the staff perceives quality as the core for customer satisfaction (34). Co-operative and helpful staffs will be able to instill confidence among the customer of the industry. Staffs have to provide error free recording for the patients.

There are a number of hospitals subsist in Malaysia which provide quality care with an affordable price. Moreover, competitive offerings are creating a center of attention for the customers not only from within the country but also from abroad. As the quality is a fundamental issue in medical tourism, the Malaysian government has also emphasized on improving the overall healthcare quality for both public and private hospitals with an aim to attract more medical tourists (35). Moreover, Malaysian government also encourages both private and public hospitals to acquire Malaysia Society for Quality in Health (MSQH) accreditation and quality (ISO 9000, 9002) certification with the purpose of meeting international standards (36, 37).

H2: There is a significant relationship between service quality and medical tourism in Malaysia.

Customer Service

Medical tourism, a consumer-driven pattern (38) involves service sectors that posits itself as the low-cost, high-quality and comfortable access medical option for people around the world (39). On account of these kinds of qualities, this kind of new service industry provides obtained international attention, impressive to a lot of patients for considering it as a probable substitute. As establishing nations around the world positively promote tourism, heavy investment goes into re-

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placing their healthcare system. For that reason, the quality of healthcare in the country can be enhanced and a nearby people, who constitute the mass of the individuals, find benefitted. Nevertheless, this investment and the particular demand inspired by the foreign patients' position the particular risk of increased healthcare price and overlooked needs of the neighborhood residents, hence indicating pejorative to the healthcare system of the actual vacation spot countries (40).

With a option of nations around the world similar to Costa Rica, Brazil, Indian, Thailand, Singapore, Malaysia, Taiwan and a lot more, patients stay in order to consider their own options and choose a vacation spot for the healthcare requirements. Hence, customer service became very important where patients may draw a line between their choices among the available options. This becomes very important for patients that affect their choice of nation, medical facility and the doctor. However, healthcare is actually a very individual and critical service (41) and a whole lot of deliberation needs to be exercised in the particular decision of turning to medical vacation. Healthcare is actually an area where the end result of the actual service will be shared between the service provider and the particular patient. Hence, the proper allocation of time toward the patients should be consistent in terms of service. Therefore, individual focus should be given to customers. A certain amount of time should be provided to the customers for their proper treatment (42).

It is additionally a great emotionally depleting knowledge, more so in times when the actual healthcare intervention sought is a bit more complicated. A patient's behavior, cognitive and emotive factors influence the actual readiness in order to co-create (43). As a result, achieving a profitable result can be simply achievable when the patient feels safe in the encompassing, and will be in handle of his emotions. Thus, relying on medical tourist is a subjective decision that is determined by mental and mental factors how the patient is encountering back then of decision making.

In line with the current trend of this customer oriented healthcare industry, Malaysian hospitals also emphasizes on the customer services in order to

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attract more medical tourists. Besides, to ensure sufficient accommodation for this rising number of medical tourists, Malaysian government has aimed to source an additional RM 335 million from the private sector hospitals in upgrading their infrastructures (e.g. increasing the number of beds) (44).

H3: There is a significant relationship between customer service and medical tourism in Malaysia.

Conceptual Framework

Basing on the literature discussed above, this study has linked the relations among the variable in the following diagram:

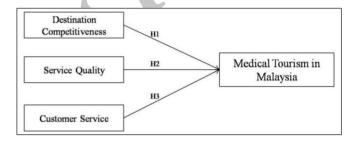


Fig. 1: Conceptual Framework

Materials & Methods

As the purpose of the research was to find out various factors contributing towards the development of medical tourism in Malaysia, so this study was descriptive as well as causal research (31,45). The target population for this study consisted of the medical tourists coming to Malaysia with the primary intension of seeking medical procedures other than sightseeing. Hence, this study did not consider the expatriates, general foreign workers and tourists who are living in Malaysia or come for other purposes (e.g. social interactions, visiting friends and families, official meetings, etc.). Moreover, due to the huge costs and unavoidable time constraints that occurred from this study and the attendant difficulties to get the required respondents as they were scattered in many areas of the destination, this study only considered the medical tourists those are receiving treatments within the hospitals in Kuala Lumpur area.

This study used non-probability judgment sampling technique for data collection. This is relatively considered more appropriate for this study because in many cases, medical tourists are not comfortable to answer or meet people or acknowledge their presence (46) and sometimes, patients are not in a condition to participate in any form of survey (47).

Total 300 questionnaires were personally distributed among the respondents during the period between December 2012 and February 2013 and total 266 were returned and found valid for further analysis. As SEM was used for data analysis in this study, thus, a total sample size of 266 was considered adequate (48-51). The questionnaire was developed in English. The questionnaire for this research was adopted from previous researches and few questions were also added. This study used a 5-point Likert scale in the questionnaire (52-55).

To strengthen the validity of this research, several recommended procedures were employed (56-62). A proper research design was employed and experts' opinions were sought to achieve content validity of the measuring instrument. To achieve criterion validity, this study compared the meas-

urement tool with previous widely accepted measurement tools. Finally, construct validity was employed through Cronbach's alpha (α) test (61, 62). A cutoff point of 0.50 was used in exploratory factor analysis (EFA) to recognize the strength of the inter-correlations among the items. Finally, for the unidimensionality assessment, confirmatory factor analysis (CFA) was conducted prior to assessing the validity and reliability (63, 64).

Results

The demographic Table 1 illustrates that out of total of 266 respondents participated in this study, male respondents are dominating with 69.5%.

It was interesting to find out that most of the people who visited Malaysia for medical tourism were from Middle East which was 54.9% and this was followed by people from Asia (28.6%), Africa (12%) and others (4.5%).

Most of the patients who visited Malaysia for their treatment were in the Age group of 41 and above (47%). The highest income level group who earns around \$3000-\$4000 a month consists of total 33.8%.

Variables	N = 266	0/0	Age	N = 266	0/0
Male	185	69.50	20 & below	24	9.0
Female	81	30.50	21-30	26	9.8
			31-40	91	34.2
			41 & above	125	47.0
Geographic	N = 266	%	Income Level	N = 266	%
Distribution					
Asian	76	28.6	Below \$ 1000	12	4.5
Middle East	146	54.9	\$1001-\$2000	50	18.8
African	32	12.0	\$2001 - \$3000	47	17.7
Others	12	4.5	\$3001-\$4000	90	33.8
			Above \$4000	67	25.2

Table 1: Demographic profiles of the respondents

Factor analysis was performed utilizing principal component analysis (PCA) to recognize the strength of the inter-correlations among the items used in the questionnaire. Bartlett test of Sphericity has been helpful to examine the constructs abilities. KMO has been used to gauge for the va-

riables that had to be dropped mainly because of multicollinearity. Results ended up being hugely significant and the particular variable seemed to be ideal for this factor analysis (KMO value for this study is .818).

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The consistency statistics states the degree of reliability among the variables screened. To recognize the strength of the inter-correlations among the items used in this study questionnaire, exploratory factor analysis (EFA) was performed. Total three factors were extracted and the total variance explained is 68.394. This suggests that the three fac-

tors account for 68.39% of the total variance. The extracted variables were renamed as destination competitiveness (average factor loading 0.8474), service quality (average factor loading 0.8013) and customer service (average factor loading 0.7706) (Table 2).

Table 2: Factor loading of the measurement items

Variables	Mean	Std. Deviation	Factor Loading
Destination Competitiveness (Alpha = 0.8474)			
Malaysian hospitals have efficient staffs to handle the Patients	3.921	.954	.872
Malaysian hospitals adopted a different strategy for medical tourists	3.819	.901	.856
Communication is not a barrier as English is widely used in Malaysia	3.500	.968	.854
I frequently visit Malaysia for medical treatment	3.782	.993	.857
Malaysian hospitals are well recognized	3.707	.992	.798
Service Quality (Alpha = 0.8013)			
Providing right information to patients in Malaysian hospitals is good	4.008	.886	.816
The current information services in the Malaysian hospitals can be improved	4.015	.907	.767
The Patients should always get the value for the money they spent in the Malaysian hospitals	4.030	.814	.805
Malaysian hospitals provide a world class service	3.861	.979	.817
Customer Service (Alpha = 0.7706)			
Satisfying the needs of a customer in the hospital industry is	3.755	.996	.883
very important			
The medical tourists are very hard to satisfy	4.026	.945	.875
Achieving a good reputation in the Patients mind is hard	4.011	.942	.746
The hospitals cannot offer all the services required by the Patients	3.812	.941	.579

Furthermore, a confirmatory factor analysis (CFA) was also conducted to verify the factor structure for assessing the factors contributing towards the development of medical tourism in Malaysia. Unidimensionality assessment is important to assess the validity and reliability. Unidimensionality is achieved when the measuring items have acceptable factor loadings for the respective latent construct. To ascertain unidimensionality, any item with a low factor loading was deleted and this process continues till the requirement is achieved. Hence, the validity for each measure-

ment model was achieved as the R² of the observed variables were greater than 0.40, indicating a reasonably good convergent validity of the model.

Finally, the structural relation among the variable were identified through SEM which is presented in Fig. 2. For meeting the level of GOF, this study has selected at least one fit indices from each category (absolute fit, incremental fit and parsimonious fit). This study considered RMSEA and GFI to meet the requirement for absolute fit, AGFI and CFI for incremental fit and Normed Chi

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Square for parsimonious fit (Table 3). However, during the first run of the measurement model, the goodness of fit indices (GOF) was not achieved. Therefore, this study needed to modify further the model to meet the GOF. Therefore, it was necessary to look at the MI indices to find out the multi-collinearity problems among the items. It was found that, the MI value between e13 and e14, e14 and e16 and e5 and e7 were more than 15. Thus, these items were connected through the double headed arrow to make this "free parameter". After solving the multi-collinearity problem, the model was then re-specified and the required level of GOF was achieved. The Fig. 2 describes the degree of relationship between factors contributing towards the development of medical tourism in Malaysia.

Hypothesis Testing

The structural equation model was employed to test the relationship among constructs basing on the recommended fit indices discussed earlier. Goodness-of-fit indicates for this model were P = 0.068, Normed Chi-square = 2.986, GFI = 0.930,

AGFI = 0.921, CFI = 0.930 and RMSEA = 0.057 (Table 3). In figure 2, it can be seen that, the regression weight for destination competitiveness in the prediction of medical tourism in Malaysia is significantly different from zero at the 0.001 level and the path coefficient is 0.63.

Therefore, H1 is accepted as destination competitiveness plays an important role that significantly influences the medical tourists in selecting Malaysia as their preferred medical tourism destination.

Table 3: The results of model fit

Fit indices	Fitted Measurement Model	Fitted Structural Model
Normed	3.006	2.986
Chi Square		
GFI	0.960	0.930
AGFI	0.916	0.921
CFI	0.942	0.930
RMSEA	0.082	0.057
<i>P</i> -value	0.141	0.068

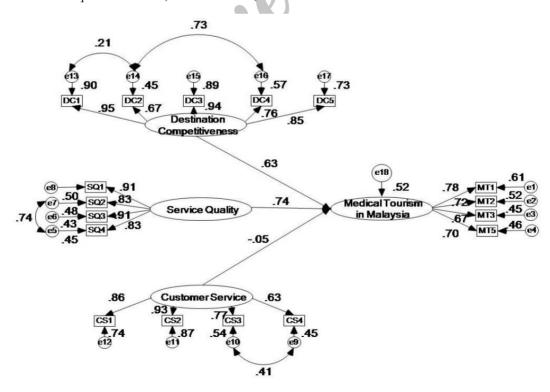


Fig. 2: Structural Model of the Study

The regression weight for service quality in the prediction of medical tourism in Malaysia is also significantly different from zero at the 0.001 level and the path coefficient is 0.74. Therefore, H2 is also accepted as service quality significantly influences the medical tourists in selecting Malaysia as their preferred medical tourism destination.

However, the regression weight for customer service in the prediction of medical tourism in Malaysia is not significantly different from zero at the 0.05 level (P = 0.386) and the path coefficient is

also -0.05 (Table 4). Therefore, H3 is rejected as this means that customer service does not influences the medical tourists in selecting Malaysia as their preferred medical tourism destination. This may be due to the reason that customer service may not be measured before availing the treatment in the selected destination. Hence, this can be considered as after sales services where medical tourists first have to avail the treatment in their desired destination.

Table 4: Standard estimation of the main model

Standardized regression weight			S.E.	C.R.	P
Medical Tourism in Malaysia	<	Destination Competitive-	.040	5.604	***
		ness			
Medical Tourism in Malaysia	<	Service Quality	.136	6.736	***
Medical Tourism in Malaysia	<	Customer Service	.175	867	.386

Discussion

Medical tourism in Asia is growing rapidly. As many countries in Asia are offering medical tourism, thus, Malaysia needs a lot of improvement in order to be the regional hub for medical tourism. As medical tourism is a part of the overall service industry, hence, patients are the core for this business to grow. The findings of this study identified key dimensions for medical tourism to be sustained in Malaysia. Though, the findings proved that Malaysian government's effort in promoting their destination image is quite effective, however, there is always room for improvement if they want to compete in this medical tourism field. The findings are very similar to what Helble and Johnston have discussed earlier [39, 40]. Moreover, the effective promotional activities by the Malaysian government together with other private organizations have also influenced a number of medical tourists to visit Malaysia which is also similar to the previous findings (e.g. Chua; Shankar & Fazim) (36,37).

In terms of service quality, majority of the patients are satisfied with the current services offered by the Malaysian hospitals. The findings are similar to Lam and Manaf where the authors found service

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quality such as providing right information to patients, up-to-date information services, patients' awareness towards value for the money they spent for their treatments and providing a world class services are few important indicators for retaining as well as attracting more medical tourists (33, 35). However, interestingly, the findings revealed that in Malaysia, the current practices towards customer services are not very high. This has provided the needed indicators for Malaysian hospitals to seriously look into the matter and figure out the solutions in retaining and attracting prospective medical tourists in the near future. This argument is also supported in the previous literature (29-32, 34, 38). As, satisfying the customers should be the prime objective for countries promoting medical tourism, therefore, Malaysian government needs to identify the various needs through which they can aggressively promote them as a key player in the medical tourism field with an aim to attract and retain future medical tourists. Moreover, there is a need to promote various medical success stories together with the services they offer to attract more foreign patients. From this study, it is very much clear that destination competitiveness plays an important role in the medical tourist's mind. They should under-

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stand that motives of general tourists and medical tourists are not same. In general tourism, tourists visit different places for recreation, relaxing or sightseeing. However, medical tourism is different in that aspect as tourist goes to different countries for minor or major surgical purposes which involve their personal health. Therefore, increased service quality together with better customer services and proper marketing strategies are of vital importance to attract and retain prospective medical tourists in Malaysia.

Conclusion

This study is very significant both theoretically and practically. This study contributes to the theoretical development in the tourism industry by offering the structured relationship among various aspects contributing towards the development of medical tourism in Malaysia. On the other hand, this study can help a number of researchers in the hospitality and Medical industry and the people involved in such industry that can use this study findings as an example for understanding on how a destination image, service quality and better customer service has strong influence on the customers' perception and attitude towards the medical tourism aspects towards Malaysia.

Ethical Considerations

Ethical issues (including plagiarism, Informed Consent, misconduct, data fabrication and/or falsification, double publication and/or submission, etc) have been completely observed by the authors.

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The authors declare that there is no conflict of interest.

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