Patient satisfaction and patient loyalty in medical tourism sector: A study based on trip attributes

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Abstract---Purpose-The purpose of this paper is to analyse the influence of Trip Attributes on Patient Satisfaction and Patient Loyalty in Medical Tourism Sector using Partial Least Squares Structural Equation Modelling (PLS-SEM). Design/ method/ approach- The paper undertakes an examination of influence of Trip Attributes on Patient Satisfaction and Patient Loyalty in Medical Tourism Sector based on primary data collected from 402 foreign tourists visiting Kerala for medical treatment using questionnaire. The Structural Equation Modelling (SEM) using Smart PLS 3.0 developed by Christian Ringle and his team was employed for analysing data. Findings- The results indicate that Trip Attributes including Frequency of Visit, Duration of Treatment and Duration of Leisure Time have significant influence on Patient Satisfaction. Likewise, the patient satisfaction has significant influence on Patient Loyalty. The results highlight the importance of trip attributes on patient satisfaction and their loyalty in the medical tourism sector. The government and service providers can develop the medical tourism industry by concentrating on trip attributes as it has direct effect on patient satisfaction. Originality/ value- The study tries to analyze the inter linkages between trip attributes and patient satisfaction as well as patient satisfaction and patient loyalty in the medical tourism sector in Kerala using Primary data.

Keywords---*Trip Attributes, Patient Satisfaction, Patient Loyalty, Medical Tourism, PLS- SEM.*

Introduction

Medical tourism (MT) refers to a vacation that involves travelling across international borders to obtain a broad range of medical services. It usually includes leisure, fun, and relaxation activities, as well as wellness and health-care service (Heung, Kucukusta, & Song, 2010). Due to the growth of technology, economy, and other global relations, medical tourism plays a significant role in shaping the future of medical care globally (Mohamad, Omar, & Haron, 2012). In the environment of rapidly increasing competition, countries and health service providers make great efforts in order to take more shares from the medical tourism, which is directly related to the quality of the service provided and customer satisfaction (Akdu & Gulmez, 2017). Patients who seek to reduce their health-care expenditures travel to medical centres in other countries to obtain dental, medical and surgical services that are less expensive than those at home (Heung et al., 2010). These patients are seeking high quality medical care at affordable prices (Herrick, 2007). The major reasons for this may include lengthy waiting time in some western countries, high expenses, and lack of medical insurance, or underinsurance (Sultana et al., 2014). The countries providing medical tourism services can improve their relationship with other countries (Kim & Hyun, 2022). In India, privatisation of healthcare and cost are the two prominent factors resulting in the growth of medical tourism (Debata, Patnaik, & Mahapatra, 2011). In relation to Kerala, one of the most admired tourism destinations in India, a study contributing to the enhancement of knowledge regarding the satisfaction of patients in the medical tourism sector is highly needed as it has been becoming a topic of discussion in these days among government and service providers for their growth and development. In the past years, the MT sector has achieved a boom in the economy, but in academic field, only western context studies are common (Li, Du, Xue & Jenkins, 2022). The present study tries to explore the new insights in the medical tourism sector in Kerala as it is very relevant.

The objective of the present study is to understand and assess the influence of Trip Attributes on Patient Satisfaction and Patient Loyalty in the Medical Tourism Sector.

Review of Literature and hypotheses development

Medical tourism is a sustainable business as long as the hospitals provide international patients with delight and positive emotional experiences (Veerasoontorn et al., 2011). Though their home country provide quality treatment, the patients travel abroad for treatment (Heung et al., 2010). Hence, it is obvious that people opt for medical tourism and their satisfaction with medical treatment, hospital service, leisure activities and food, beverages and accommodation might be influenced by several factors. Some medical tourists consider the destination which has already been visited as future choice for medical tourism activities (Akdu & Gulmez, 2017; Gholipour Soleimani & Einolahzadeh, 2018). Geography of destination countries exerts significant positive effect on 'Satisfaction' of the medical tourists (Kumar & Hussian, 2016). That is, tourists' perceived image of this archaeological destination influences their post-visit satisfaction (Huete Alcocer & López Ruiz, 2020). Hence, the frequency of visit, duration of treatment and duration of leisure time might also

influence the Patient satisfaction. Saiprasert (2011) pointed out that the medical trip attributes are important in medical tourism, and it is worth studying. It would be interesting to know whether the trip attributes influence the patient satisfaction in medical tourism in Kerala. The following hypothesis was formulated and tested in this regard.

H_1: *Trip Attributes have a significant influence on the Patient Satisfaction in the Medical Tourism Sector.*

The survival of every business organisations depends upon the repeated purchase and revisit intension of customers and it is also really applicable in the healthcare set up in the medical tourism industry (Mee et al., 2017). Patient satisfaction increases the market value and image of hospital. Satisfied patients give the positive response, which is very much beneficial for the healthcare providers on a long term basis (Kumar & Hussian, 2016). Likewise, medical tourists who were satisfied with medical treatment, hospital services, and medical trip were likely to share their positive experience by saying positive things and recommending it to other people (Saiprasert, 2011). An improved foreign patient evaluation of kindness and satisfaction will increase patient loyalty in the long run (Aljumah, Islam, & Noor, 2017). For the present study, the following hypothesis was formulated and tested in this regard.

H_2: *Patient Satisfaction has a significant influence on the Patient Loyalty in the Medical Tourism Sector.*

Figure 1 demonstrates the interconnection between Trip Attributes, Patient Satisfaction and Patient Loyalty. The Latent Variable (LV) Trip Attributes are coded as TA1 (Frequency of visit), TA2 (Duration of visit), TA3 (Hospital stay) and TA4 (Leisure time). The indicators of the construct Patient Satisfaction are satisfaction with medical treatment, hospital service, leisure activities and food, beverages and accommodation and are coded as PS1, PS2, PS3 and PS4 respectively. The LV, Patient Loyalty has 3 indicators coded from PL1 to PL3 (recommendation, revisit intension and considers the destination as first choice of MT)
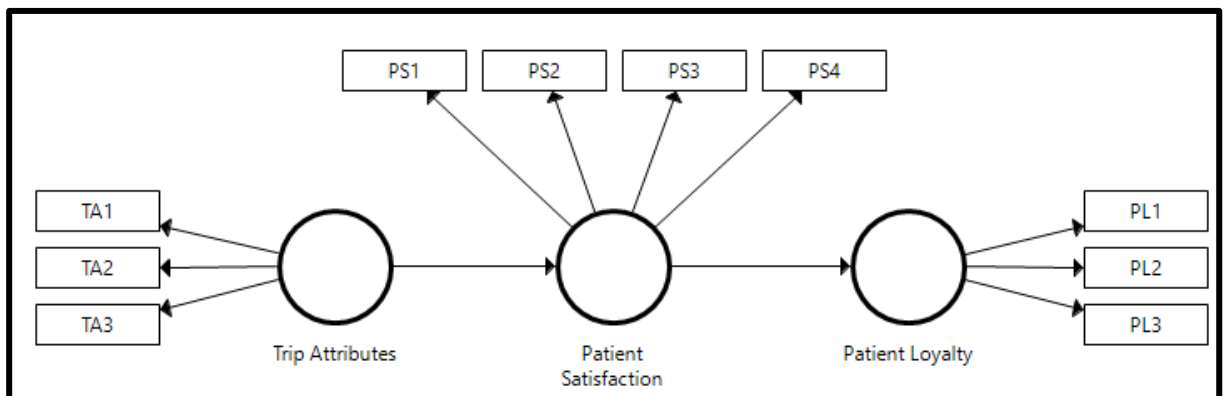

Figure1: Model: Influence of Trip Attributes on Patient Satisfaction and Patient Loyalty.

Methods

The study is particularly meant to identify the influence of trip attributes on Patient Satisfaction and Patient Loyalty in Medical Tourism Sector in Kerala, India based on the data collected from foreign tourists visiting Kerala for medical treatment. The primary data was collected from 402 medical tourists who visited Kerala during the time period 2014- 2020 using a structured questionnaire. Google forms were used to collect data from foreigners who had left Kerala after treatment. The foreign tourists visiting Kerala for medical treatment form the target population for the present study as they can provide relevant information regarding Trip Attributes, Patient Satisfaction and Patient Loyalty involved in medical tourism. Since no secondary data or statistics was available about the number of medical tourists visiting Kerala for treatment, it is difficult to create a sample frame. Hence, the convenience sampling method was adopted. The relevant variables were identified through a detailed review of literature. All items except trip attributes were scored on a five-point Likert type scale which measured the degree of agreement with item descriptions, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Secondary data was collected from various sources such as research journals, dissertations, etc. Based on the review of literature, a model was developed to demonstrate the hypothesised relationship between the variables. The PLS-SEM method was adopted with the Smart PLS software package in order to test and validate the model.

Results and Discussion

The purpose of the present paper is to analyse fundamental relationship between variables and demonstrates the evidence to substantiate the relationship among the variables based on the statistical data. Structural Equation Modelling was used to investigate the relationship among the variables. The Structural Equation Modelling is the most useful advanced statistical analysis techniques that have emerged in the social sciences in recent decades. For the purpose of the present study, Partial Least Squares Structural Equation Modelling (PLS- SEM, known as PLS path modelling was employed. PLS- SEM, an alternative to the popular CB-SEM method, has hot interest among the academic community especially in the social science disciplines (Hair, Hult, Ringle, & Sarstedt, 2017). Figure 2 shows the Structural Equation Model with path loading of each indicator.
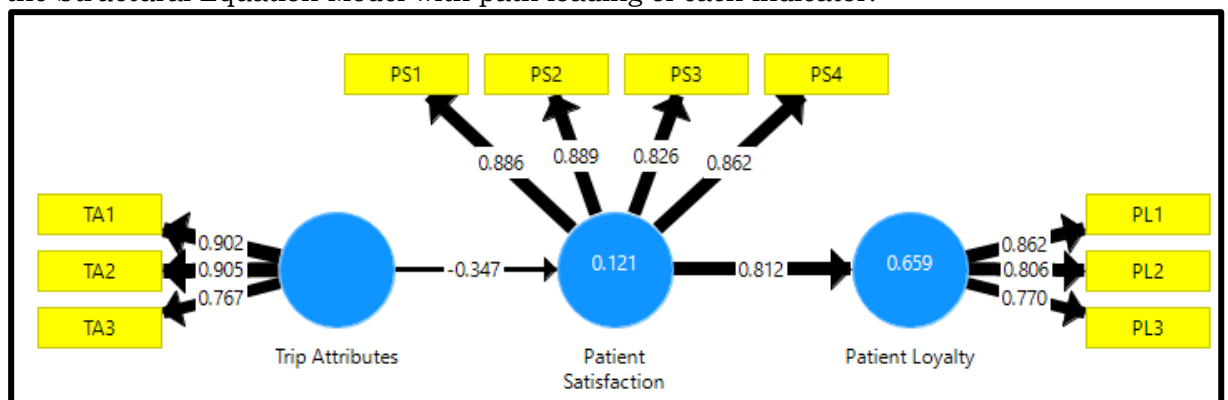
Figure2: Model: lnfluence of Cost and Trip Attributes on Patient Satisfaction and Patient Loyalty

The PLS simulation of the model is carried out by calculating and assessing various parameters including item loading, reliability and validity tests (Memon & Rahman, 2014). Table 1 is presented with the results of model validation along with LVs and its individual indicators, path loadings, Cronbach's Alpha (α), Composite Reliability (CR) and Average Variance Extracted (AVE).

Table1: validity of model: lnfluence of Cost and Trip Attributes on Patient Satisfaction and Patient Loyalty

	Code	Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Patient Loyalty	PL1	0.862	0.748	0.854	0.662
	PL2	0.806			
	PL3	0.770			
Patient Satisfaction	PS1	0.886	0.89	0.923	0.75
	PS2	0.889			
	PS3	0.826			
	PS4	0.862			
Trip Attributes	TA1	0.902	0.776	0.850	0.593
	TA2	0.905			
	TA3	0.767			

According to the results, all indicators are showing path loading greater than 0.5. According to Hulland (1999), the path loading value greater than 0.4 is acceptable. The Cronbach's Alpha (α) values are greater than 0.7 and composite reliability values are greater than 0.8. Table 2 shows the Discriminant validity which advocates that square root of each constructs AVE should be higher than its highest correlation with any other construct (Fornell& Larcker, 1981). The model satisfies the Fornell- Larcker criterion for Discriminant Validity as per the results.

Table 2: Discriminant Validity- Fornell- Larcker criterion.

	Patient Loyalty	Patient Satisfaction	Trip Attributes
Patient Loyalty	**0.868**		
Patient Satisfaction	0.811	**0.865**	
Trip Attributes	-0.255	-0.345	**0.860**

It is observed from the model that the R2 value for Patient Satisfaction is 0.121. The R2 adjusted value is 0.118. R2 value for Patient Loyalty is 0.659. The R2 adjusted value is 0.658. The predictive relevance, Q2 gives values 0.398 and 0.085 for Patient Loyalty and Patient Satisfaction respectively which is well above

the threshold limit of zero. According to the f2 value Trip Attributes has moderate impact on Patient Satisfaction and Patient Satisfaction has higher impact on Patient Loyalty. Table 3 shows the result of the assessment structural model which include the path coefficient estimates, t values and p values.

Table 3: Structural Model: Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Patient Satisfaction -> Patient Loyalty	0.812	0.813	0.022	36.442	0.000
Trip Attributes -> Patient Satisfaction	-0.362	-0.37	0.033	10.82	0.000

It can be concluded from the results that the influence of Patient Satisfaction on Patient Loyalty is significant. Likewise, Trip Attributes significantly influence Patient Satisfaction. i.e., the relationship between Trip Attributes and Patient Satisfaction as well as Patient Satisfaction and Patient Loyalty are significant (P<1.01).

Implications of the study

Medical Tourism refers to the cross border travelling for obtaining a wide range of medical services along with a vacation opportunity including recreational, leisure and entertaining activities. It has already obtained great interest among service providers and destination countries. A study considering the influence of Trip Attributes on Patient Satisfaction and Patient Loyalty in Medical Tourism Sector based on primary data will be very helpful to them and also for the common people who are interested in seeking treatment abroad. The present study has great relevance in the present scenario as it provides information regarding the highly competitive field called Medical Tourism and contributes new insights to the existing body of knowledge. The Trip Attributes including frequency of visit, duration of stay and duration of leisure time is likely to influence the patient satisfaction. The results indicate that the Trip Attributes have significant influence on Patient Satisfaction. Likewise, the patient satisfaction has significant influence on Patient Loyalty. Hence it is important to consider the trip attributes in Medical Tourism in order to attract medical tourists and to make them loyal to the particular service provider/ destination country.

Limitations and scope for further studies

The present study analyses the influence of only 3 indicators of Trip Attributes involved in Medical Tourism. There may be other factors that influence Patient Satisfaction, and it would be worth studying. The study is conducted among foreign medical tourists visiting India for treatment. The particular study with a higher sample size will be more helpful. The domestic medical tourists can also be included.

Conclusion

The study dealt with the examination and interpretation of Trip Attributes and their influence on Patient Satisfaction and Patient Loyalty in the Medical Tourism Sector and tries to contribute new insights into the existing body of knowledge. A model is developed on the basis of review of literature and validated by using PLS-SEM method with Smart PLS software. The model satisfies all the assessment criteria without any omission of an indicator and hence, the proposed model is validated. The results indicate that Trip Attributes influence Patient Satisfaction in the Medical Tourism industry. Likewise, Patient Satisfaction influences Patient Loyalty. The evidence suggests that 12.1% variance in Patient Satisfaction is explained by Trip Attributes. Moreover, 65.9% variance in Patient Loyalty is explained by Patient Satisfaction. The study results would be useful to the stakeholders of Medical Tourism like, government, service providers and medical tourists.

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5244

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