

Views of Bangladeshi Consumer towards Medical Tourism Experience in India: Using a Structural Equation Model

Md. Shahed Mahmud¹

Dr. Md. Mahbubar Rahman²

Tanmay Biswas³

Abstract

In Bangladesh, because of the poor public health care delivery system, affluent patients tend to take medical treatment from foreign medical institutions and this trend is increasing every year. This study aims to examine the outgoing medical tourists' experience and the relationship of that experience with service satisfaction and loyalty. A handful of literature has been found measuring the outgoing medical tourists' experience, satisfaction, and loyalty in the context of Bangladesh. Thus, medical tourists from Bangladesh seeking medical treatment in different foreign countries are the population of this study. For selecting sample, the medical tourists from Bangladesh who have already received medical services from India were taken into consideration by applying purposive sampling technique. For examining outbound medical travelers' experience, a specialized experience-based model called the Medical Tourism Experience (MTEX) model was adopted for this study. A structured questionnaire was used to collect primary data from the respondents. Using the PLS-SEM multivariate statistical technique, the collected data was analyzed through the SmartPLS software. The statistical result shows that medical service quality's experience, medical tourism expenses, infrastructure, and destination appeal and culture have a strong positive impact on building outbound medical tourists' satisfaction. Furthermore, medical tourists' satisfaction, build upon medical tourism experiences, significantly impacted medical destination loyalty. The empirical result of this study has two-fold implications. Theoretically, it will add new knowledge to the repository of tourism research and practically the outcome of this research will assist the concerned stakeholders to formulate strategies according to their needs.

Keywords: Medical tourism, Experience, Bangladesh, India, Satisfaction, Loyalty

1. Introduction

Medical tourism is a special kind of tourism, where the tourists seek medical treatment and roaming activities simultaneously (Abubakar and Ilkan, 2016; Kim et al., 2013; Rai, 2019). Usually, medical tourists seek medical services outside the home country. With the rise of global connectivity, technological advancement, improved information sharing and accessibility, medical tourism has been expanding significantly in the last couple of decades (Abubakar and Ilkan, 2016; Esiyok et al., 2017; Ganguli and Ebrahim, 2017; Khan

¹Assistant Professor, Department of Management, Mawlana Bhashani Science and Technology University
E-mail: shahed.m.mbstu@gmail.com

²Professor, Department of Marketing, University of Rajshahi
E-mail: mmmr.ium@gmail.com

³Assistant Professor, Department of Accounting, Mawlana Bhashani Science and Technology University
E-mail: tbiswas.actg@gmail.com

et al., 2016). The most notable change in the medical tourism market is that people from the developed countries are now interested to take medical treatment from the developing countries which was just opposite only a couple of decades ago (Zarei and Maleki, 2019; Ferreira and Castro, 2020). Countries like South Africa, Thailand, Venezuela, South Korea, Singapore, India, Malaysia, Mexico, etc. are now dominating the world's medical tourism market and attracting more and more medical tourists from all over the world (Adams et al., 2015; An, 2014; Khan et al., 2016; Ormond et al., 2014; Zarei and Maleki, 2019). Several factors are influencing this changing trend i.e. updated medical services with a relatively lower expense, presence of roaming and relaxation activities, avoidance of potential health hazards, etc. (Rahman, 2019; Yeoh et al., 2013). Medical tourism is essentially a bundle of different service attributes, where every medical tourist has to go through several medical services that build their experience on it and shape their post-purchase behavior. Experiencing positive services creates positive impression and satisfaction resulting into loyalty and vice versa. Thus, it is essential to explore medical tourists' experience and the value drivers for an enhanced understanding of the medical tourists' behavior by the policymakers and the marketing professionals to sharpen the service quality atmosphere to entice new medical tourists and retain the prevailing ones.

Over the last couple of decades, the economy of Bangladesh is growing quite consistently (Lightcastle Analytics Wing, 2015; Trading Economics, 2020). Despite the consistent economic growth, the general healthcare system has not been flourished with its true potential (Ali and Medhekar, 2018). Numerous factors like mismanagement in the public healthcare supply chain, unethical practices in different layers of healthcare delivery system, shortage of skilled manpower, etc. are some of the underlying factors for the backwardness of the healthcare system of Bangladesh (Ali, 2012; Chaity, 2017). For these reasons, a considerable number of patients from Bangladesh tend to go abroad for their healthcare-related issues (Ali, 2012; Chaity, 2017). Although the affluent patients are taking medical treatment from different countries around the world, being our closest neighbor, India has become the popular medical tourism destination for Bangladeshi patients (Ali and Medhekar, 2018; Andaleeb et al., 2007). Every year, around 250,000 patients from Bangladesh are taking medical treatment from different Indian medical institutions (IMTJ, 2020). Cultural similarities, delivery of relatively improved healthcare services, rich cultural heritage for roaming, etc. are some of the prominent causes for choosing India as a medical tourism destination for Bangladeshi medical tourists (Ahmed and Yeasmeen, 2016; Chaity, 2017; Star Business Report, 2018).

On this backdrop, this study is an attempt to find out the answer to the following research questions:

- a. Does the experience of outbound medical tourism have any impact on satisfaction for the Bangladeshi medical tourists? and;
- b. How does the outgoing medical tourists' satisfaction put impact on the loyalty of the Bangladeshi medical tourists?

From the perspective of medical tourism experience, a handful of literature has been found especially focusing on medical tourists' experience. Most of the literature found, applied

the dimensions of SERVQUAL or SERVPERF model to measure medical tourists' experience (Ghosh and Mandal, 2019; Wang, 2012; Guiry and Vequist, 2011). Considering this gap, Ghosh and Mandal (2019) developed and validated a scale called Medical Tourism Experience (MTEX) where each latent variable was experience-focused and gave a comprehensive approach for measuring medical tourists' experience. Thus, for measuring the experience of medical tourists from Bangladesh and the association of this experience with satisfaction and loyalty, this study adopted the modified MTEX model, which was initially developed and validated by Ghosh and Mandal (2019). Thus, the objectives of this study are:

- i. To explore the association between outbound medical tourism experiences with medical tourists' satisfaction for the Bangladeshi medical tourists; and
- ii. To expose the association between medical tourists' satisfaction with loyalty for Bangladeshi medical tourists.

The findings of this study have implications in two dimensions. Theoretically, the research findings will add new insights into the repository of tourism research. On the other hand, the concerned authorities of Bangladesh will be able to identify the value drivers for Bangladeshi medical tourists and take measures to improve the existing healthcare structure of Bangladesh. Similarly, the Indian medical service providers can better improve their existing service atmosphere for attracting more and more medical tourists not only from Bangladesh but also from all over the world. The rest of the paper is organized in the following manner literature review, hypotheses development section followed by research methodology, results, discussion and implications. The paper has ended with limitations, future research direction and conclusion.

2. Literature Review

Medical Tourism and experience:

Medical tourism mainly happens when medical travelers seek medical attention outside their home country (Jain and Ajmera, 2018; Salmon, 2008). Connell (2006) explains medical tourism as “*where people often travel to overseas countries for obtaining medical care while simultaneously being holidaymakers.*” From previous literature, it can be found that medical tourism is not a new trend. People from various parts of the world have travelled to different countries for having better and low-cost treatment from very ancient ages (Burkett, 2007). However, previously, people usually went to developed countries for medical treatment. But now the drift has changed a lot, and a significant number of people from developed countries are now moving towards developing countries for taking medical treatment (Gray and Poland, 2008). In recent days, people from different classes are also travelling to different countries of the world for getting advanced and affordable medical services (Goodrich and Goodrich, 1987; Manaf et al., 2015). Several previous studies have found that the low cost of modern medical services plays a significant role in attracting medical tourists from other countries (Connell, 2006). It is generally believed that a higher satisfaction level largely depends on higher service quality and higher satisfaction leads a customer towards loyalty (Sadeh, 2017). For instance, experience has a profound impact on tourists' satisfaction, well-being and loyalty towards visiting places remembrance,

customer sentiment to a destination, future intentions, Word of Mouth (WOM), service fairness, and hosts of other customer-related variables (Ghosh and Mandal, 2019; Jensen et al., 2015; Otto and Ritchie, 1996). Many factors influence medical services and satisfaction because medical tourism is a mixture of different services at the same time (i.e. easy to access, medical infrastructure, local heritage, transport network, religion and culture, etc.) (Ghosh and Mandal, 2019). Medhekar et al. (2020) identified that relatively lower waiting times, quality of healthcare services with international recognition, medical staff expertise, safety, information availability, cost and opportunity for spending leisure time, etc. are the value drivers for sustainable quality in medical tourism. Therefore, the medical services and other services associated with medical tourism can give a happy experience to the medical tourists which is an important catalyst for formulating satisfaction and loyalty of the medical tourists.

Medical Tourism Experience (MTEX) model:

For decades, it has been common to travel far beyond transnational boundaries in a quest for decent quality healthcare. In the last couple of decades, medical tourism has grown rapidly and different healthcare service providers are promoting the idea of medical tourism. In recent years, this sector has become a multi-million-dollar segment of the tourism industry and is expected to rise in the future in many folds. Although the sector is rising, a lack of measurement scales to measure medical tourists' experience has been observed. Although some researchers took some attempts, holistically, no scale has been found before the development of the MTEX scale (Ghosh and Mandal, 2019). On this backdrop, Ghosh and Mandal (2019) developed and validated a comprehensive medical tourism experience measurement scale based on a grounded theory approach, where, medical service quality, medical tourism infrastructure, treatment quality, medical tourism expense, destination appeal, ease of access and destination culture were the key constructs. According to Ghosh and Mandal (2019), this measurement scale is a handy tool for measuring medical tourists' experience, and the relationship among experience, satisfaction, and loyalty can be easily measured through this scale. Researchers also stated that, as this scale has been developed considering only the inbound medical travelers of a developing country, thus the generalizability of the scale may be difficult and suggested add/remove/combine the seven constructs while doing cross-cultural research.

Thus, this study is an attempt to measure the medical tourists' experience from the outbound medical tourists' perspective. With some modification of the original MTEX scale, this study measures the outbound medical tourists' experience in the context of Bangladesh and the relationship of that experience with satisfaction and loyalty. No research has been carried out particularly considering these factors in the context of the Bangladesh-India medical tourism aspect.

3. Hypotheses development

Based on the literature and research gap, this study has developed the hypotheses in the following ways.

Medical service quality and medical tourists' satisfaction:

Medical tourists' satisfaction largely depends on medical service quality. Medical services served by the medical institutions and the treatment quality are included in determining medical service quality. Researchers like Ghosh and Mandal (2019) defined treatment quality as the "nature of treatment received by an individual from the health care organization" and medical service as, "difference between the services delivered by the health care organization and the services expected by the individual." Experience of better service quality can satisfy medical tourists and that results in loyalty status. Based on this assumption, the following hypothesis is formed:

H₁: Medical service quality positively affects the satisfaction of medical tourists.

Medical tourism expenses and medical tourists' satisfaction:

Expenses involved in medical tourism has been considered as one of the most influential factors for choosing medical tourism destination. Ghosh and Mandal (2019) defined medical tourism expenses as "expenditure incurred by the individual in the medical destination, including treatment, food, lodging, and traveling." As medical tourism includes a whole range of processes, thus, besides treatment cost, medical tourists' have to consider food, accommodation, and travel expense under medical tourism expenses. Having a reasonable medical tourism expenditure follow-on good experience, satisfaction, and loyalty. Thus, H₂ is developed:

H₂: Medical tourism expenses positively affects the satisfaction of medical tourists.

Medical tourism infrastructure and medical tourists' satisfaction:

The physical facilities and the upgraded treatment quality is included in a medical tourism destination. Ghosh and Mandal (2019) stated the medical tourism infrastructure, thus, "appearance of the health care center and the associated physical facilities." Having good-looking healthcare facilities with standard hygiene maintenance both in the treatment providing institutions and the accommodation service provider, uplift the experience level of medical tourists resulting in satisfaction. Hence, the following hypothesis is formed:

H₃: Medical tourism infrastructure positively affects the satisfaction of medical tourists.

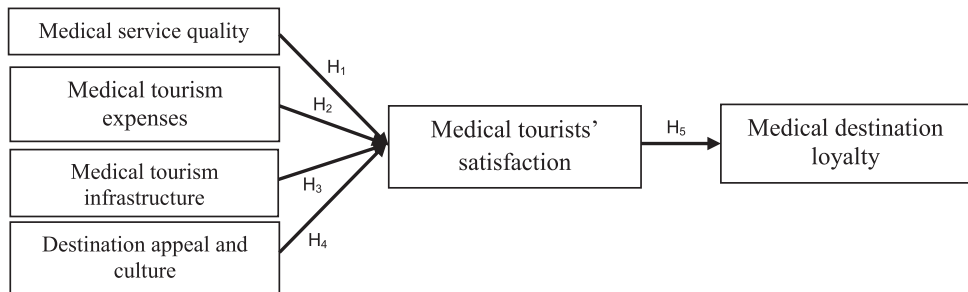


Figure 1: Research model

Destination appeal and culture and medical tourists' satisfaction:

In the context of medical tourism, almost all the literature found, have pointed out different forms of leisure-related activities. Hence, culture and destination appeal have a profound

impact on developing medical tourists' experience. Ghosh and Mandal (2019) pointed out destination appeal as "*attractiveness of the destination that allures someone to explore it*" and destination culture as "*arts and other manifestations of human intellectual achievements available in the destination.*" Thus, having a robust destination appeal and culture, a follow-on in a memorable experience for medical tourist's which ultimately leads towards satisfaction, furthermore loyalty. Hence, the subsequent hypothesis is formed:

H₄: Destination appeal and culture positively affects the satisfaction of medical tourists.

Medical tourists' satisfaction and loyalty:

To survive in the market, customer satisfaction has been considered as one of the key indicators for organizations (Zhou et al., 2017). According to Garbarino and Johnson (1999), satisfaction is "*regarded as an attitudinal construct that reflects positive evaluation and perceptions of the quality and skill of the acting.*" Again, while defining overall satisfaction, Anderson et al. (1994) pointed out that satisfaction is "*an overall evaluation based on the total purchase and consumption experience with a good or service over time.*" A common proposition goes that customer loyalty is determined by measuring customers' level of satisfaction. Previous studies also revealed that essential marketing functions like positive WOM, repeated sales, and customer loyalty are also influenced by customer satisfaction (Merli et al., 2019). Thus, the formation of a better medical tourism experience in the mind of medical tourists results in satisfaction and loyalty (Ghosh and Mandal, 2019). Thus, with the evidence of the previous studies, the following hypothesis is formulated:

H₅: Medical tourists' satisfaction positively affects the destination loyalty of medical tourists.

4. Research Methodology

4.1 Survey design:

A structured questionnaire was employed for collecting data for this study. For developing the questionnaire, a stepwise approach was followed. At the very beginning, the previous literatures were studied for gathering in-depth knowledge on this very topic. Then based on the model developed by Ghosh and Mandal (2019), the measurement items were selected. Before making the final decision, related to the questionnaire, two separate idea-sharing sessions had been carried out with twenty medical tourists who have recent experience of taking medical treatment from outside Bangladesh. After this stage, the questionnaire was finalized in English language and then translated in Bangla for the easy understanding of the participants. The questionnaire was separated into two parts; Part-A and Part-B. Part-A covers the demographic data of the respondents. Besides, in Part-B, questions regarding the medical tourism experience, satisfaction, and loyalty were enclosed. The questionnaire items collected data using a five-point Likert Scale.

4.2 Data collection:

Considering Ghosh and Mandal's proposed MTEX model, the research model of this study has been formulated (figure 1). All the outgoing patients and their attendants taking

medical services from outside Bangladesh constituted the population for this study. To achieve the study objectives, this study has considered those medical tourists as sample who have taken medical services from India. For selecting the sample, from the population, a purposive sampling technique was employed because we have dealt with a particular country’s medical tourism experience (i.e., India). A total of 350 questionnaires were distributed among the potential respondents. Finally, from 350 questionnaires, 303 were returned. 21 questionnaires were found incomplete and excluded from further analysis. In total, 282 questionnaires were assigned for statistical analysis which could pass through the minimum sample criteria (for minimum sample size determination, this study adopted power analysis) (Hair Jr. et al., 2017). This study collected data from the respondents in the month of February and March of the year 2020. It took informed consent from the respondents. The questionnaire also maintained the rights of the respondents. This study-maintained data confidentiality very strictly.

4.3 Data analysis:

For data analysis, Smart-PLS v3.2.9 software was employed for adopting the Partial Least Square-Structural Equation Modeling (PLS-SEM) technique. First of all, the demographic information of respondents was analyzed through SPSS v23 and then the overall model fit, the discriminant validity, reliability, convergent validity, structural model and paths of the relationship among the conceptual model were examined through SmartPLS software. PLS-SEM approach was adopted because it does not require normality of the data (Hair Jr et al., 2014; Hair Jr. et al., 2014b). As this study employed a Likert Scale for data collection, so the non-normality of the data can be assumed.

5. Results

5.1 Demographics:

Table 1: Respondents’ demographic profile (n=282)

Characteristics and its category		Percentage (%)
Medical tourists’ category	Patient	72.3
	Medical attendant	27.7
Gender	Male	70.6
	Female	29.4
Marital status	Married	82.3
	Unmarried	16.3
	Others	1.4
Age range	Less than 25	12.4
	25-40	31.2
	41-55	42.2
	56-70	12.1
	More than 70	2.1

Education	Self-educated	0.3
	Less than Secondary	2.5
	Secondary	3.9
	Higher Secondary	15.6
	Graduate	34.4
	Post Graduate and above	43.3
Occupation	Government job	15.6
	Teacher	17.4
	Banker	5.1
	Farmer	0.7
	Businessperson	22.0
	Self-employed	7.4
	Retired officials	3.5
	Private service	1.4
	Student	9.9
Others	17.0	
Monthly income	Less than 30,000	38.6
	30,000-50,000	36.2
	50,000-75,000	16.0
	More than 75,000	9.2

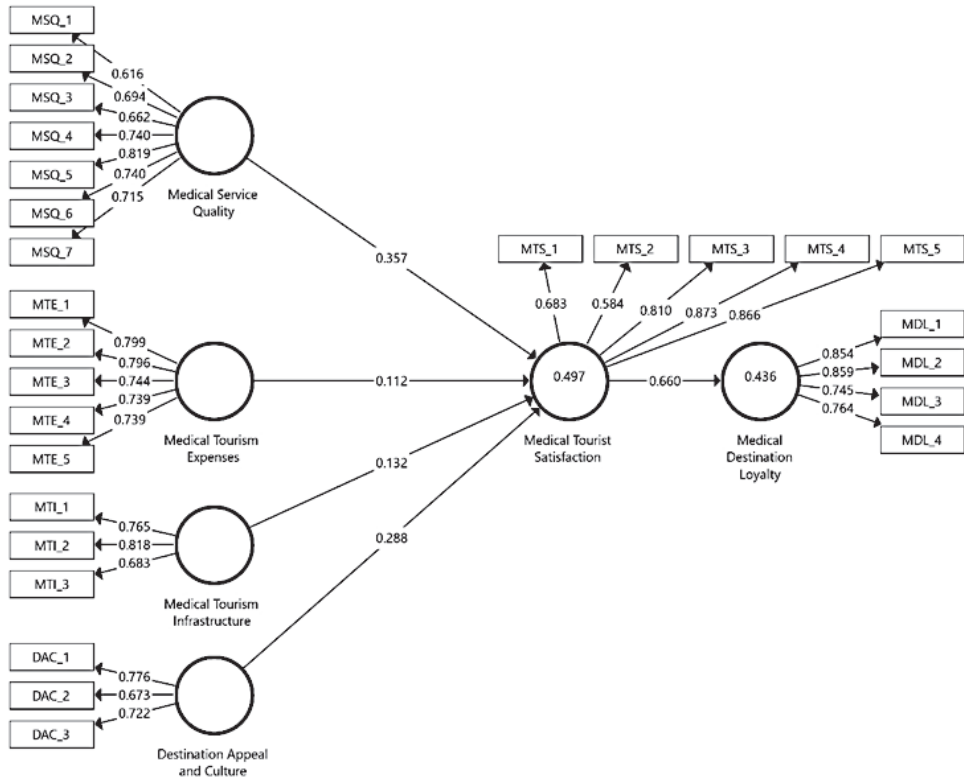
Source: SPSS output

In table 1, the demographic information of the respondents shows that most of the respondents are patients (72.3%). From the perspective of gender, 70.6% are male respondents and 29.4% are female respondents. From the surveyed information, the age range of the majority of respondents are 41-55 (42.2% of the respondents). Most of the respondents (almost 78%) achieved their highest academic education (graduate and postgraduate). From the perspective of occupation, businesspersons took the highest majority, followed by teachers and government officials. The majority of the respondents' income was below thirty thousand Bangladeshi taka (BDT).

5.2 Analysis and results:

5.2.1 The measurement model:

Demonstrates results using the PLS Algorithm technique for the hypothesized model shown in figure 2.



Source: SmartPLS 3.2.9 output

Figure 2: Structure Model and Results on PLS Algorithm

According to Osman and Sentosa (2013), convergent validity is a scale’s capacity to load together as a single construct and is used to examine each loading for each indicator block. The value for each outer loading should be higher than 0.7, indicating the loadings share in more variance with their concerned latent variable than with the error variance. Although 0.7 is considered as standard, a lower limit ranging from 0.5 to 0.6 may also be acceptable in exploratory research (Chin, 1998). In this analysis, the value of outer loading, illustrated in table 2, meets all the mentioned criteria.

Table 2: Validity Assessment

Construct	Measurement Items	Loadings	VIFs	Cronbach's α	Composite Reliability (CR)	AVE
Medical Service Quality	MSQ_1	0.62	1.33	0.84	0.88	0.51
	MSQ_2	0.69	1.50			
	MSQ_3	0.66	1.63			
	MSQ_4	0.74	1.89			
	MSQ_5	0.82	2.15			
	MSQ_6	0.74	1.80			
	MSQ_7	0.72	1.59			
Medical Tourism Expenses	MTE_1	0.80	3.60	0.83	0.88	0.58
	MTE_2	0.80	3.78			
	MTE_3	0.74	1.45			
	MTE_4	0.74	1.40			
	MTE_5	0.74	1.69			
Medical Tourism Infrastructure	MTI_1	0.77	1.31	0.63	0.80	0.57
	MTI_2	0.82	1.35			
	MTI_3	0.68	1.15			
Destination Appeal and Culture	DAC_1	0.78	1.10	0.56	0.77	0.53
	DAC_2	0.67	1.23			
	DAC_3	0.72	1.23			
Medical Tourist Satisfaction	MTS_1	0.68	1.39	0.82	0.88	0.60
	MTS_2	0.58	1.33			
	MTS_3	0.81	2.04			
	MTS_4	0.87	2.76			
	MTS_5	0.87	2.49			
Medical Destination Loyalty	MDL_1	0.85	1.90	0.82	0.88	0.65
	MDL_2	0.86	2.25			
	MDL_3	0.75	1.47			
	MDL_4	0.76	1.66			

Source: SmartPLS 3.2.9 output

For evaluating the severity of co-linearity, Variance Inflation Factor (VIF) has been used in a formative measurement model. Hair Jr. et al. (2014b) suggested that the value of VIF should be less than 05. Table 2 of this study indicates that VIF values of measurement items are in the satisfactory range (less than 05).

The value of Cronbach's Alpha (α) is typically used for measuring internal consistency. The range for Cronbach's α is from 0 to 1 with a higher value representing larger internal consistency (and ultimately reliability) (Hair Jr. et al., 2014a). Cronbach's α , if it is less than 0.5, it is considered unacceptable. Hair Jr. et al. (2014a) identified that Cronbach's α value should be above 0.7, but in exploratory research, a value ranging from 0.6 to 0.7 is measured acceptable. From table 2, most of the values of Cronbach's α is in the acceptable range.

For measuring reliability, Composite Reliability (CR) is considered as another indicator. The value for CR ranging from 0 to 1 means higher values representing greater reliability level. Values greater than 0.7 can be considered as satisfactory (Fornell and Larcker, 1981, Hair Jr. et al., 2014b). From table 2, it can be seen that the value for CR is in an acceptable range. The other measurement, Average Variance Extracted (AVE) is a standard measure to determine the convergent validity of the construction level. AVE value of 0.50 or higher is expected. Conversely, an AVE of less than 0.5 indicates that, on average, more error remains in the items than the variance explained by the construct (Hair Jr. et al., 2014b). AVE value calculated for this study illustrated in table 2 indicates that AVE values of measurement items are in the acceptable range.

Table 3: Fornell Larcker Criterion for measuring discriminant validity

Constructs	1	2	3	4	5	6
Destination Appeal and Culture	0.73					
Medical Destination Loyalty	0.49	0.81				
Medical Service Quality	0.52	0.64	0.72			
Medical Tourism Expenses	0.39	0.36	0.38	0.76		
Medical Tourism Infrastructure	0.35	0.54	0.62	0.31	0.76	
Medical Tourist Satisfaction	0.56	0.66	0.63	0.40	0.49	0.77

Source: SmartPLS 3.2.9 output

Fornell-Larcker criterion is a measure of discriminant validity, which compares the square root of each construct's average variance extracted with its correlations with all other constructs in the model (Fornell and Larcker, 1981). According to Hair Jr. et al. (2014b), *“the Fornell-Larcker criterion also suggests that the constructs discriminant well because the square root of the AVE of each reflective construct is larger than the correlations with the remaining constructs in the model.”* Hair Jr. et al. (2014b) further explained that *“the Fornell-Larcker criterion compares the square root of the AVE values with the latent variable correlations. Specifically, the square root of each construct's AVE should be greater than its highest correlation with any other construct.”* From table 3, it is seen that most of the constructs meet the criteria.

Table 4: HTMT discriminant validity criteria

Constructs	1	2	3	4	5	6
Destination Appeal and Culture						
Medical Destination Loyalty	0.67					
Medical Service Quality	0.73	0.76				
Medical Tourism Expenses	0.54	0.41	0.42			
Medical Tourism Infrastructure	0.55	0.75	0.87	0.41		
Medical Tourist Satisfaction	0.78	0.79	0.73	0.46	0.67	

Source: SmartPLS 3.2.9 output

Discriminant validity can also be measured through the Heterotrait-Monotrait ratio (HTMT) criteria. According to Hair Jr. et al. (2017), *“HTMT is the ratio of the between-trait correlations to the within trait correlations.”* The recommended criteria for HTMT discriminant validity is below 0.9 (Henseler et al., 2015). From table 4, it can be found that this analysis meets the required criteria.

5.2.2 The structural model:

To evaluate the structural model, path analysis, and hypothesis testing, SmartPLS software was used. By applying 5,000 subsamples, bootstrapping procedure was performed to examine the significance of the hypotheses. The relationship between exogenous and endogenous latent variables in the proposed model was examined with the assistance of a structural model (Hair et al., 2011). The pictorial explanation of the confirmed model is illustrated in Figure 2. The focal conditions for estimating a structural model, are the path coefficient level of significance (β), the cross-validated redundancy (Q^2), the coefficient of determination (R^2) (Hair Jr et al., 2014; Hair Jr. et al., 2014b). To measure the estimation of standard error and the significance of path coefficients of the proposed model, a t-statistic result was also used. To test the significance of the relationship among constructs and for accepting and rejecting the hypotheses, the p-values have been used, which is generated by applying the bootstrapping method. For measuring the model's predictive accuracy and the effect of exogenous constructs on endogenous constructs, the value of R^2 is being used. The value of R^2 ranges from 0 to 1. According to Merli et al. (2019), R^2 value below 0.25 represents a weak accuracy, below 0.50 indicates moderate accuracy, and substantial accuracy can be specified if the value remains below 0.75. Stone-Geisser's Q^2 values are used for evaluating the predictive relevance of the exogenous constructs on endogenous constructs and can be generated through a blindfolding procedure.

Table 5: Hypotheses statistics (bootstrapping) and endogenous constructs assessment (R^2 and Q^2)

Structural estimates (hypotheses testing)

Hypotheses	Paths	Path Coefficients (β)	T Statistics (O/STDEV)	P Values	Results
H ₁	Medical Service Quality -> Medical Tourist Satisfaction	0.36	5.48	0.000**	Supported
H ₂	Medical Tourism Expenses -> Medical Tourist Satisfaction	0.11	2.50	0.012*	Supported
H ₃	Medical Tourism Infrastructure -> Medical Tourist Satisfaction	0.13	2.34	0.019*	Supported
H ₄	Destination Appeal and Culture -> Medical Tourist Satisfaction	0.29	5.53	0.000**	Supported
H ₅	Medical Tourist Satisfaction -> Medical Destination Loyalty	0.66	18.78	0.000**	Supported

[Notes: *p-value < 0.05. **p-value < .001]

[Note: Path Coefficients (β), T Statistics (|O/STDEV|) and P Values are computed through bootstrapping procedure with 282 cases and 5,000 subsamples.]

Endogenous constructs assessment

	R Square	R Square Adjusted	Q Square
Medical Destination Loyalty	0.44	0.43	0.27
Medical Tourist Satisfaction	0.50	0.49	0.28

Source: SmartPLS 3.2.9 output

With a 95% confidence interval, the bootstrapping technique specifies that all path coefficients are statistically significant. Therefore, all the hypotheses for this study are

supported. H_1 , H_4 , and H_5 are supported at a 99.99% significance level whereas, H_2 and H_3 are supported at a 95% confidence level. The values of Q^2 and R^2 recognized the model's predictive accuracy. The model explains that 44% of medical tourists are getting loyal to medical tourism destinations, and 50% are satisfied with the medical tourism experience (Table 5).

6. Discussion

Under the tourism industry, medical tourism has been considered as one of the fastest-growing segments. With the rise of the world's middle class, this trend of medical tourism is showing a positive sign of growth. Although the growth and importance of this segment are increasing, a limited number of studies have been carried out measuring medical tourists' experience and the impact of their experience on satisfaction and loyalty. Based on the MTEX scale by Ghosh and Mandal (2019) this research attempt has been taken on the viewpoint of Bangladeshi medical tourists towards Indian medical tourism experience. For the purpose of this study, five separate hypotheses were developed. The first hypothesis was whether the experience of medical service quality impacted medical tourists' satisfaction or not. The empirical result of this study shows that there is a significant impact of medical service quality on medical tourists' satisfaction which gives a similar kind of result from previous researches (Adams et al., 2015; Alhashem et al., 2011; Aliman and Mohamad, 2013; Babakus and Mangold, 1992; Ferreira and Castro, 2020; Gan and Frederick, 2011; Ghosh and Mandal, 2019). The second hypothesis was whether the experience of medical tourism expenses impacted medical tourists' satisfaction or not. The empirical result of this study shows that there is a noteworthy impact on medical tourism expenses on medical tourists' satisfaction. The third and fourth hypotheses were concerned with whether the experience of medical tourism infrastructure, destination appeal and culture significantly affect medical tourists' satisfaction or not. The empirical results reveal that these two hypotheses are significant, meaning, the experience of medical tourism infrastructure and destination appeal and culture significantly influence the outbound medical tourists from Bangladesh. Lastly, the fifth hypothesis was, whether outbound medical tourists' satisfaction, build upon medical tourists' experience, significantly affect medical tourists' destination loyalty or not. The empirical result shows that the outbound medical tourists from Bangladesh are loyal to medical destinations, and they have further intention to visit the same destination in future and they also spread positive word-of-mouth to their peers.

7. Implication

This result of this study will contribute both theoretically and practically. Theoretically, as this study is based on the MTEX model, thus with the application of the stated model in the context of Bangladeshi outgoing medical tourists, this study has extended the existing knowledge base of medical tourism research. The study has also some contribution to understand medical tourists' behavior. On the other hand, practically, the concerned authorities of Bangladesh can identify the value drivers for Bangladeshi medical tourists and take effective actions to improve the existing healthcare structure of Bangladesh. In line with this, the Indian medical service providers can sharpen their existing service

atmosphere for attracting more and more medical tourists not only from Bangladesh but also from all over the world.

8. Limitation and future research directions

For this study purpose, only a purposive sampling technique was applied for selecting samples. Moreover, this study passes through the minimum sample size criteria. Thus, future researchers can consider these limitations and can apply different mediating and moderating variables to dig some deeper knowledge in this very field.

9. Conclusions

A positive experience in medical treatment results in satisfaction and loyalty. Due to the negative experience of existing healthcare services, a significant number of patients tend to go to different countries outside Bangladesh. As our closest neighbor and have some forms of cultural similarities, Indian hospitals have become the popular choice for Bangladeshi patients. Thus, this study takes those medical tourists as sample who have already taken medical services from India and has tried to know their experience and the relationship of those experiences with satisfaction and loyalty. The statistical results outlined that, for the outbound medical tourists from Bangladesh, the experience of taking medical services from India is positively affecting their satisfaction, and finally, satisfaction built upon the experience is positively affecting loyalty. So, the concerned authorities from Bangladesh should take these signals very seriously for reshaping and rethinking the entire healthcare system of our country. Otherwise, the flow of taking treatment from outside the country will increase exponentially and create immense pressure on the economy which is not desirable at all.

References

- Abubakar, A. M. & Ilkan, M. 2016. Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. *Journal of Destination Marketing & Management*, 5, 192-201.
- Adams, K., Snyder, J., Crooks, V. & Johnston, R. 2015. Tourism discourse and medical tourists' motivations to travel. *Tourism Review*, 70, 85-96.
- Ahmed, Z. & Yeasmeen, F. 2016. First world healthcare by third world provider: Position of Bangladesh. *Journal of Health Science Research*, 1, 29-33.
- Alhashem, A. M., Alquraini, H. & Chowdhury, R. I. 2011. Factors influencing patient satisfaction in primary healthcare clinics in Kuwait. *International Journal of Health Care Quality Assurance*, 24, 249-262.
- Ali, M. M. 2012. Outbound medical tourism: the case of Bangladesh. *World Review of Business Research*, 2, 50-70.
- Ali, M. M. & Medhekar, A. 2018. Healthcare quality of Bangladesh and outbound medical travel to Thailand. *Экономика региона*, 14.
- Aliman, N. K. & Mohamad, W. 2013. Perceptions of service quality and behavioral

- intentions: A mediation effect of patient satisfaction in the private health care in Malaysia. *International Journal of Marketing Studies*, 5, p15.
- An, D. 2014. Understanding Medical Tourists in Korea: Cross-Cultural Perceptions of Medical Tourism among Patients from the USA, Russia, Japan, and China. *Asia Pacific Journal of Tourism Research*, 19, 1141-1169.
- Andaleeb, S. S., Siddiqui, N. & Khandakar, S. 2007. Patient satisfaction with health services in Bangladesh. *Health Policy and Planning*, 22, 263-273.
- Anderson, E. W., Fornell, C. & Lehmann, D. R. 1994. Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. *Journal of Marketing*, 58, 53-66.
- Babakus, E. & Mangold, W. G. 1992. Adapting the SERVQUAL scale to hospital services: an empirical investigation. *Health services research*, 26, 767.
- Burkett, L. 2007. Medical Tourism. *Journal of Legal Medicine*, 28, 223-245.
- Chaity, A. J. 2017. Bangladeshis flock to Indian, Thai hospitals in huge numbers. *Dhaka Tribune*, 30 November 2017.
- Chin, W. W. 1998. The partial least squares approach to structural equation modeling. *Modern methods for business research*, 295, 295-336.
- Connell, J. 2006. Medical tourism: Sea, sun, sand and ... surgery. *Tourism Management*, 27, 1093-1100.
- Esiyok, B., Çakar, M. & Kurtulmuşoğlu, F. B. 2017. The effect of cultural distance on medical tourism. *Journal of Destination Marketing & Management*, 6, 66-75.
- Ferreira, F. A. & Castro, C. Medical Tourism in Portugal – A Potential Niche Market. In: Rocha, Á., Abreu, A., De Carvalho, J. V., Liberato, D., González, E. A. & Liberato, P., eds. *Advances in Tourism, Technology and Smart Systems, 2020// 2020* Singapore. Springer Singapore, 615-625.
- Fornell, C. & Larcker, D. F. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research*, 18, 39-50.
- Gan, L. L. & Frederick, J. R. 2011. Medical tourism facilitators: Patterns of service differentiation. *Journal of Vacation Marketing*, 17, 165-183.
- Ganguli, S. & Ebrahim, A. H. 2017. A qualitative analysis of Singapore's medical tourism competitiveness. *Tourism Management Perspectives*, 21, 74-84.
- Garbarino, E. & Johnson, M. S. 1999. The Different Roles of Satisfaction, Trust, and Commitment in Customer Relationships. *Journal of Marketing*, 63, 70-87.
- Ghosh, T. & Mandal, S. 2019. Medical Tourism Experience: Conceptualization, Scale Development, and Validation. *Journal of Travel Research*, 58, 1288-1301.
- Goodrich, J. N. & Goodrich, G. E. 1987. Health-care tourism — an exploratory study. *Tourism Management*, 8, 217-222.

- Gray, H. H. & Poland, S. C. 2008. Medical Tourism: Crossing Borders to Access Health Care. *Kennedy Institute of Ethics Journal*, 18, 193-201.
- Guiry, M. & Vequist, D. G. 2011. Traveling Abroad for Medical Care: U.S. Medical Tourists' Expectations and Perceptions of Service Quality. *Health Marketing Quarterly*, 28, 253-269.
- Hair, J. F., Ringle, C. M. & Sarstedt, M. 2011. PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19, 139-152.
- Hair Jr., J. F., Black, W. C., Babin, B. J. & Anderson, R. E. 2014a. *Multivariate Data Analysis*, England, Pearson Education Limited, Essex CM20 2JE, England.
- Hair Jr., J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. 2014b. *A primer on partial least squares structural equation modeling (PLS-SEM)*, SAGE Publications India Pvt. Ltd.
- Hair Jr., J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. 2017. *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, USA, SAGE Publications.
- Hair Jr, J. F., Sarstedt, M., Hopkins, L. & Kuppelwieser, V. G. 2014. Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, 26, 106-121.
- Henseler, J., Ringle, C. M. & Sarstedt, M. 2015. A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115-135.
- IMTJ. 2020. *Visa Bans Block Bangladesh Patients Travelling to India* [Online]. UK: International Medical Travel Journal. Available: <https://www.imtj.com/news/visa-bans-block-bangladesh-patients-travelling-india/> [Accessed 30 October 2020].
- Jain, V. & Ajmera, P. 2018. Modelling the factors affecting Indian medical tourism sector using interpretive structural modeling. Benchmarking: *An International Journal*, 25, 1461-1479.
- Jensen, Ø., Lindberg, F. & Østergaard, P. 2015. How Can Consumer Research Contribute to Increased Understanding of Tourist Experiences? A Conceptual Review. *Scandinavian Journal of Hospitality and Tourism*, 15, 9-27.
- Khan, M. J., Chelliah, S. & Haron, M. S. 2016. Medical tourism destination image formation process: *A conceptual model*. *International Journal of Healthcare Management*, 9, 134-143.
- Kim, S., Lee, J. & Jung, J. 2013. Assessment of Medical Tourism Development in Korea for the Achievement of Competitive Advantages. *Asia Pacific Journal of Tourism Research*, 18, 421-445.
- Lightcastle Analytics Wing. 2015. *Market Insight: Bangladesh Healthcare Sector Overview* [Online]. Lightcastle Analytics. Available: <https://www.lightcastlebd.com/>

insights/2015/05/26/market-insight-bangladesh-healthcare-sector-overview [Accessed 10 February 2020].

- Manaf, N. H. A., Hussin, H., Kassim, P. N. J., Alavi, R. & Dahari, Z. 2015. Medical tourism service quality: finally some empirical findings. *Total Quality Management & Business Excellence*, 26, 1017-1028.
- Medhekar, A., Wong Ho, Y. & Hall John, E. 2020. Health-care providers perspective on value in medical travel to India. *Tourism Review*, 75, 717-731.
- Merli, R., Preziosi, M., Acampora, A. & Ali, F. 2019. Why should hotels go green? Insights from guests experience in green hotels. *International Journal of Hospitality Management*, 81, 169-179.
- Ormond, M., Mun, W. K. & Khoon, C. C. 2014. Medical tourism in Malaysia: how can we better identify and manage its advantages and disadvantages? *Global Health Action*, 7, 25201.
- Osman, Z. & Sentosa, I. 2013. Mediating effect of customer satisfaction on service quality and customer loyalty relationship in Malaysian rural tourism. *International Journal of Economics Business and Management Studies*, 2, 25-37.
- Otto, J. E. & Ritchie, J. R. B. 1996. The service experience in tourism. *Tourism Management*, 17, 165-174.
- Rahman, M. K. 2019. Medical tourism: tourists' perceived services and satisfaction lessons from Malaysian hospitals. *Tourism Review*, 74, 739-758.
- Rai, A. 2019. Medical Tourism: An Introduction. In: *RAI, A. (ed.) Medical Tourism in Kolkata, Eastern India*. Cham: Springer International Publishing.
- Sadeh, E. 2017. Interrelationships among quality enablers, service quality, patients' satisfaction and loyalty in hospitals. *The TQM Journal*, 29, 101-117.
- Salmon, J. W. 2008. Emerging Trends in Outsourcing Healthcare: *Medical Tourism. American Health & Drug Benefits*, 1, 27-28.
- Star Business Report. 2018. Bangladesh a key source market for medical tourism. *The Daily Star*; 04 May 2018.
- Trading Economics. 2020. *Bangladesh GDP Growth Rate* [Online]. Available: <https://tradingeconomics.com/bangladesh/gdp-growth> [Accessed 10 February 2020].
- Wang, H. Y. 2012. Value as a medical tourism driver. *Managing Service Quality: An International Journal*, 22, 465-491.
- Yeoh, E., Othman, K. & Ahmad, H. 2013. Understanding medical tourists: Word-of-mouth and viral marketing as potent marketing tools. *Tourism Management*, 34, 196-201.
- Zarei, A. & Maleki, F. 2019. Asian medical marketing, a review of factors affecting Asian

medical tourism development. *Journal of Quality Assurance in Hospitality & Tourism*, 20, 1-15.

Zhou, Y., Kankanhalli, A., Yang, Z. & Lei, J. 2017. Expectations of patient-centred care: Investigating IS-related and other antecedents. *Information & Management*, 54, 583-598.

Appendix 1: Measurement items adopted from (Ghosh and Mandal, 2019).

Constructs	Indicators	Question/Items
Medical Service Quality	MSQ_1	I think that I have received an advanced and customized medical service during my treatment.
	MSQ_2	I felt that the treatment was effective.
	MSQ_3	I think that the medical staff (including doctors) were well trained.
	MSQ_4	The medical staff instilled confidence in me during my treatment.
	MSQ_5	I found the medical staff friendly.
	MSQ_6	I found the medical staff responsive to my concerns.
	MSQ_7	I felt that the service provided by the staff was reliable.
Medical Tourism Expenses	MTE_1	The destination offered a lower price for treatments than my home country.
	MTE_2	The treatment cost was affordable.
	MTE_3	The destination offered advanced treatments at competitive prices.
	MTE_4	The cost of food, lodging (hotel), and the transport was affordable.
	MTE_5	I think that I can save a significant amount of money by taking treatment from abroad.
Medical Tourism Infrastructure	MTI_1	The hospital was clean and tidy and maintained adequate hygiene.
	MTI_2	The hospital has up-to-date infrastructure and facilities.
	MTI_3	The lodging (hotel) was well equipped with modern amenities and maintained a standard of cleanliness.
Destination Appeal and Culture	DAC_1	The medical tourism destination has many exciting events and activities and an attractive landscape for spending quality time.
	DAC_2	I feel that local people are open and helpful to welcome people from other cultures.
	DAC_3	I think that the destination offers different ways to exchange cultural thoughts.
Medical Tourist Satisfaction	MTS_1	Getting treatment from abroad gave confidence to the treatment.
	MTS_2	I felt that I have recovered/been improving day-by-day after the treatment.
	MTS_3	My satisfaction with the medical destination's treatment quality is high.
	MTS_4	The medical destination meets my desired expectation.
	MTS_5	My overall satisfaction with the medical destination is high.
Medical Destination Loyalty	MDL_1	I will continue visiting the same medical destination in the future.
	MDL_2	I would visit the same medical destination without considering any other options.
	MDL_3	I would recommend this medical destination to others (i.e., relatives, close friends, etc.).
	MDL_4	I would continue visiting the same medical destination, even if the cost is higher than in other destinations.