RELATIONSHIPS AMONG MEDICAL ACTIVITY PERCEIVED FUNCTIONAL VALUES, SATISFACTION TRUST, AND REVISIT INTENTION IN MEDICAL TOURISM: A CASE STUDY ON CLMV TOURISTS IN THAILAND

Chutharat Chitthanom1,*

Abstract

In this study, we examined the roles of servicescape (medical activity), perceived value, satisfaction, trust, and revisit intention in the medical tourism of Udon Thani Province, Thailand. Data were collected from foreign tourists visiting Udon Thani from Cambodia, Laos, Myanmar, and Vietnam. A field survey was conducted at a private hospital by distributing questionnaires to 652 tourists visiting Udon Thani for medical activity. It was observed that medical activity, perceived functional value, satisfaction, and trust have significant associations affecting revisit intentions, while satisfaction and trust also acted as significant mediators. Findings also indicated that convenience, not price, played the most crucial role, and thus countries should not focus solely on promoting price advantages. Moreover, the government and all stakeholders of the tourism industry should focus on these factors to contribute to the success and sustainability of medical tourism.

Keywords: medical tourism, medical activity, perceived functional values, satisfaction, trust, revisit intention

INTRODUCTION

Medical tourism refers to the activities of foreign tourists visiting a destination for medical services, including dental and surgical care, in a conventional sense (Connell, 2006). Therefore, medical tourists are those who choose to make trips across international borders for the purpose of obtaining medical treatment. These medical treatments may traverse the full scope of medical services, with the most common types being dental care, cosmetic surgery, elective surgery, and fertility treatment.

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relationships among medical activity perceived functional values, satisfaction trust, and revisit intention in medical tourism: a case study on CLMV tourists in Thailand

(OECD, 2010). Recently, international medical tourists have increasingly looked for either health treatment (e.g., cancer treatment, health checkups, dental treatment, heart surgery, and fertility treatment) or beautification (e.g., cosmetic/plastic surgery, Lasik, massage, skincare, and sex-change surgery; Lee et al., 2012; York, 2008) internationally.

Thailand’s medical tourism industry has developed at a noteworthy rate due to its expanding range of medical facilities catering to the demands of diverse guests, and proactive promotion by tourism authorities (Mekong Tourism, 2018). The Tourism Authority of Thailand (TAT) is currently focusing on existing medical tourism groups, such as Myanmar, Japan, Middle East, and Europe which account for nearly 80% of the national market, as well as new markets with high growth opportunities, such as Cambodia, Laos, Myanmar, Vietnam, and China (Department of Health Service Support, 2015). The trend in the economic value of medical tourism has increased progressively each year, from 25% in 2011 to 27% in 2015 (Mahidol University, 2019). In 2017, the highest number of medical tourists who used the service of treatment for infertility in Thailand (TAT, 2018) was from Laos, followed by Vietnam, Cambodia, and Myanmar (MOTS, 2017). This group of travelers is called CLMV (Cambodia, Laos, Myanmar, and Vietnam).

Medical tourism provides good facilities and tangible commodities to tourists looking for treatment of their illnesses, or dental/cosmetic desires and enhancements, and offers an enjoyable area and pleasing services for their recovery and wellbeing (Loureiro, 2017). Previous studies (Lee et al., 2014; Prayag et al., 2017) have considered many aspects, such as servicescape, emotion, and satisfaction, as key antecedents of tourist loyalty. Servicescape consists of the environment where sellers and patrons interact, combined with the tangible commodities which facilitate overall performance, or the communiqués of service providers (Han & Ryu, 2009). Prior studies in this field have focused more on the service quality of the clinical providers (e.g., clinical and care service, generally significant and minor surgeries, and aesthetic and mental treatments), rather than on clinical personnel (e.g., medical doctors and attendants) or facilities (e.g., cleanliness, lighting, and design), while investigating a hospital’s success in the medical tourism context (Han & Hyun, 2015; Yu & Ko, 2012).

Trust is the conviction of a patient toward a practitioner or hospital and refers to the concept that the hospital seeks the best for the patient and provides appropriate consideration and treatment in addition to medical advice (Chang et al., 2013; Ozawa & Sripad, 2013; Platonova et al., 2008), which results in increased satisfaction and loyalty.
Revisit intention and recommendations to others are the most commonly used measures of tourist loyalty (Eusébio & Vieira, 2013; Horng et al., 2012; Oppermann, 2000; Um et al., 2006). Previous studies have confirmed the positive relationship between satisfied tourists and recommendation intention (Grappi & Montanari, 2011; Prayag et al., 2017; Žabkar et al., 2010). Specifically, tourists are likely to return to a destination when they develop a strong level of trust in the medical professionals or practitioners at a clinic in the destination country (Han & Hyun, 2015).

Existing literature examines the influence of service dimensions on tourist perceptions, attitudes, and behavioral intentions (Lee et al., 2014; Prayag et al., 2017). However, medical tourism studies have not yet analyzed their relationship with medical activity and satisfaction and with sentiments of trust for medical care centers and their staff, nor have they examined the effect of these relationships on revisit intentions in the medical tourism context. Only a few studies have explored the influence of servicescape (medical activity) on satisfaction and trust and the revisit intentions for a destination. This study is designed to shed light on these issues. The results can improve understanding of the perception of functional value on medical activity and its influence on the revisit intentions of tourists. Hospitals and the wider service industry can use this information to improve and develop the services offered by medical providers to create further service advantages.

OBJECTIVE

This research aims to examine the interrelationships between the servicescape (medical activity), perceived functional value, satisfaction, trust, and revisit intentions, in the context of medical care, exploring interrelationships in the role of price in medical tourism, and the relationship of perceived functional value, satisfaction, and revisit intentions, and tests the mediating roles of the dimensions of satisfaction and trust.

LITERATURE REVIEW

Medical Tourism

Medical tourism refers to the phenomenon of individuals intentionally traveling across national borders to purchase medical care privately (Adams et al., 2018). Medical tourism has been perceived as a special construct incorporating tourism bundles and therapeutic administrations (Connell, 2006a).

The interfaces between the tourism industry and wellbeing care businesses have engaged medical tourism to ascend as one of the principal beneficial scopes of the industry for various nations (Han & Hyun, 2015). Asia has several noteworthy medical tourism destinations, but within Southeast Asia, Thailand has become the most favored country by medical tourists (NaRanong & NaRanong, 2011). In
2017, the countries with the highest number of medical tourists using the service of treatment for infertility in Thailand, were China, Vietnam, Myanmar, India, Hong Kong, Indonesia, Cambodia, Japan, Laos, and Singapore (TAT, 2018). For the same year, CLMV tourists that spent the most, came from Laos, Vietnam, Cambodia, and Myanmar respectively (MOTS, 2017). CLMV tourists look for healthcare services over their countries’ borders because of high expenses or postponements in treatment as their countries generally lack access to medical treatments (Lunt & Carrera, 2010). Thus, Thailand is suitable to develop medical tourism and attract medical tourists from potential customers in neighboring international locations.

Medical Activity

Medical activity is a dimension of the servicescape which depends on the physical setting where service coherences are performed, experienced, and consumed by customers and employees (Rosenbaum & Massiah, 2011). Kim et al. (2017) demonstrated that satisfactory medical activity in the hospital influences loyalty toward that hospital.

Servicescape is defined as the physical environment which affects the behavior of clients and workers in service organizations, and has been classified into three distinct dimensions: (1) “ambient conditions”; (2) “spatial layout and functionality”; and (3) “signs, symbols, and artifacts” (Bitner, 1992). It also involves diverse environmental cues similar to service organizations, and these tangible environmental cues may influence the perspectives and behaviors of medical tourists (Lee et al., 2008).

The servicescape of a medical clinic refers to the wellbeing care services of a particular area with intangible and tangible commodities, captured through the customer’s faculties regarding sound, scent, taste, sight, and touch (Sahoo & Ghosh, 2016). From the medical tourists’ perspective, the belief in a medical clinic’s servicescape also includes nonvisual or ambiance cues (e.g., lighting and sound), design and layout, and the social carrier design encompassing the interactions between service providers (e.g., doctors, nurses, and the team of a medical clinic) and medical tourists (Bonn et al., 2007). The attributes of servicescapes affect people’s inclination states, and an interaction with a service supplier in the trade affects consumers’ satisfaction (Namasivayam & Mattila, 2007). With regard to a therapeutic visit bundle, the tourist’s assessment of the servicescape and convictions can influence their emotional state (del Bosque & San Martín, 2008).

Perceived Functional Values

Functional value is important to the dimension of perceived value as it influences the evaluations of a product or service. It is also essential to explore the affective dimension of perceived value in the service context
Most studies conclude a direct relationship between perceived value and behavioral intentions and confirm the direct influence of perceived value on satisfaction, while satisfaction affects behavioral intentions (Bajs, 2015; Kashyap & Bojanic, 2000; Oh, 1999; Petrick et al., 2001). In this study, the variables of perceived functional values include healthcare quality, package, convenience, safety, and price.

Healthcare Quality
To assess the quality of medical services and doctors’ abilities, the Joint Commission Worldwide (JCI) sets world benchmarks. JCI accreditation of a hospital is imperative to healthcare tourists (MacReady, 2007). Most investigations demonstrate that human healthcare quality is the greatest worry of medical tourists (Choi et al., 2004; MacReady, 2007; Pan & Chen, 2014). The achievement of medical service providers relies upon their patients’ perceptions concerning their professionalism (Donabedian, 1996; Headley & Miller, 1993) and service quality (Hui & Wan, 2009; Wongkit & McKercher, 2016). Pan and Chen (2014) proposed the evaluation of four variables in this respect: progressive equipment, skilled specialists, dependable physicians, and the general therapeutic quality of the hospital. The quality of healthcare suppliers may add to their capacity to communicate with patients in a typical language. Numerous investigations across different fields offer support for the roles of quality and satisfaction in intention formation (e.g., Bitner, 1990; Cronin & Taylor, 1992; Hooi Ting, 2004; Lee et al., 2000; Ryu & Han, 2010). Considerable research also corroborates the pleasant related value link between healthcare (Gooding, 1995) and tourism services (Ha & Jang, 2010; Sanchez et al., 2006).

Package
Healthcare tourists generally like to appreciate a visit or an occasion in the destination country (Han et al., 2015; Henderson, 2008; Heung et al., 2010; Pan & Chen, 2014). This kind of package regularly comprises wellbeing treatments, air tickets, lodging reservations, side trips to visitor attractions, dinners, and transportation (Turner, 2009). In addition to conventional travel offices, a few hospitals set up their interior divisions to provide these packages. A few cases of joint endeavors are also being made by various nations to arrange these packages, making these trips alluring (Henderson, 2008); an efficient package can influence medical service visitors’ impressions of significant worth (Han, 2013).

Convenience
One convenience-related calculation that numerous patients value is short waiting lists within the country (Bies & Zacharia, 2007; Connell, 2006a; Horowitz & Rosensweig, 2008), implying quick treatment (Gan & Frederick, 2015). In
other words, saving time and energy resources is an advantage of a convenient service and a motive for consumers’ interest in the service. Consumers develop their intentions to repeat purchase when they are highly satisfied with the convenience of the service and the service provider.

**Safety**

Safety in the destination country is a functional value of use, related to health care tourists. Prior literature indicates that the safety in a country is a common motivating factor which drives people to seek treatments in other countries (Awadzi & Panda, 2006; Bookman & Bookman, 2007; Saiprasert, 2011).

**Price**

Existing literature often suggests that the low cost of treatment or low price is a factor influencing the intentions of international tourists to purchase medical procedures (Connell, 2006; Wongkit & McKercher, 2016; Yeoh et al., 2013). High medical expenses in Europe and North America have driven an expanding number of individuals from these areas to look for therapeutic treatment in other countries. Low cost is the major competitive advantage for Southeast Asian nations in their battle for a share of the healthcare tourism market (Liang et al., 2017). Thus, the cost factor is also important in choosing a destination for medical treatment. Previous literature has demonstrated that a client evaluates what is fair for the perceived cost of the offering, such as monetary payments and non-monetary sacrifices, together with time consumption and power consumption, emphasizing customer experience (Yang & Peterson, 2004). Customers’ perceptions of receiving value for money undoubtedly pertain to their pleasure.

**Satisfaction**

In general, a satisfied traveler is thought to be loyal, and loyalty is viewed as a key consequence of satisfaction (Lee et al., 2014; Yu & Dean, 2001). In the medical industry, Gaur, Xu, Quazi, and Nandi (2011) discovered an important connection between patient satisfaction and loyalty. Likewise, Eleuch (2011) showed that in the healthcare service industry, reliability is influenced by specialized qualities and patients’ early introduction to staff and service settings. The most general connection for behavioral intentions begins from the settled idea that patients continue to patronize a hospital and send positive messages to other individuals when they are exceedingly happy with its services. Thus, a hospital’s capacity to convey these advantages on a continuous premise affects the patients’ dimension of satisfaction. The most normal indicator of behavioral intentions or loyalty in the tourism industry is purposeful revisits and making deliberate suggestions to others (Qu et al., 2011).
Effect of Medical Activity and Perceived Functional Values on Satisfaction

Considerable research confirms the relationship between perceived value and behavioral intentions, and that apparent worth directly affects satisfaction, while satisfaction influences behavioral intentions (Bajs, 2015; Kashyap & Bojanic, 2000; Oh, 1999; Petrick et al., 2001). From the above findings, the following hypotheses are proposed:

H1: Medical activity significantly affects satisfaction.
H2: Perceived functional value significantly affects satisfaction.

Trust

Trust is regarded as a principal key factor in maintaining the customer–provider relationship (Chiu et al., 2012; Han & Hyun, 2013). Regarding the healthcare industry, trust develops as a measurement inferable from the experience or lack there of, of blunders in medical treatment. Patients’ worries regarding their wellbeing may lead them to quit accepting treatment from a hospital and change to another medical service supplier according to negative word-of-mouth (Iranmanesh et al., 2018). Trust increases health status through coherence of care, adherence to the treatment guidelines, and the ability to look for wellbeing (Dugan et al., 2005; Trachtenberg et al., 2005).

Revisit Intention

Revisit intentions have been examined repeatedly in the tourism industry literature. A revisit intension represents a sort of enthusiasm to revisit a place, location, or area (Cole & Scott, 2004). A tourist with high satisfaction is bound to revisit a tourist destination (Hui et al., 2007; Kozak & Rimmington, 2000). A satisfied tourist is also likely to recommend the same destination to other people (Hui et al., 2007; Lee et al., 2007). The criticality of the satisfaction of medical tourists ought to be stressed, as it is the most essential factor in generating international patient customers’ aims to revisit for medical care (Han & Hwang, 2018). Hence, numerous businesses, particularly hospitals, look for repeat patients because they increase the profit and help decrease market costs (Jang & Feng, 2007).

Effect of Satisfaction on Trust and Revisit Intention

The usual indicator of behavioral intentions or reliability in the tourism industry is revisit intentions and purposeful suggestions (Qu et al., 2011). A visitor with high satisfaction is bound to revisit a tourist destination (Hui et al., 2007; Kozak & Rimmington, 2000). From the above findings, the following hypotheses are proposed:

H3: Satisfaction significantly affects trust.
H4: Satisfaction significantly affects revisit intentions.
Effect of Trust on Revisit Intention

In general, customers’ satisfaction with great product performance enhances their level of confidence toward a provider’s reliability and integrity; the trust developed from satisfactory experiences acts as a substantial determinant of repeat-purchase intentions (Lankton et al., 2010). Han and Hyun (2015) found that trust in a medical clinic significantly affects intention to revisit South Korea for medical care. Revisit intentions have been considered as an augmentation of satisfaction, instead of an initiator of return, in the decision-making process. Revisit intentions result from eagerness to revisit a goal. From the above findings, the following hypotheses are proposed:

H5: Trust significantly affects revisit intentions.
H6: Medical activity has an indirect effect on revisit intentions via satisfaction and trust.
H7: Perceived value has a great indirect effect on revisit intentions via satisfaction and trust.
H8: Medical activity has an indirect effect on revisit intentions via satisfaction.
H9: Perceived value has a marked indirect effect on revisit intentions via satisfaction.

Figure 1. Model of medical activity and perceived value, satisfaction, trust, and revisit intention.
RESEARCH DESIGN AND METHODOLOGY

Sample and Data Collection

A probability sampling technique was used in this study. Data were collected from CLMV medical tourists through a simple random sampling method. Three private hospitals located in Udon Thani which each serve a considerable number of international medical tourists were contacted. Permission was obtained to collect data at the contacted international private hospitals for the field survey approach. The questionnaire was sent to Roi Et Rajabhat University and validated by the Roi Et Rajabhat University Research Ethics Committee. The questionnaire was also certified and approved by an institutional review board.

To ensure randomization, questionnaires were distributed to international health care/medical tourists at the main entrance lobbies of the medical hospitals by attendants of the hospital. To ensure that respondents had an experience relevant to the study, the attendants asked only actual medical tourists who had utilized the medical health care, aesthetic, or treatment services of the medical hospital. Attendants then offered a detailed depiction of the questionnaire to the participants. A total of 659 questionnaires were received. After excluding unusable responses, 652 responses were deemed fit for data analysis.

Data Analysis

Descriptive statistical analysis and inferential factual examination were conducted with two subsections: confirmatory factor analysis (CFA) and structural equation modeling (SEM). The Statistical Package for Social Sciences (SPSS) was utilized and SEM was conducted with the Mplus program to test the proposed connections among the examination factors for the investigation. CFA was used to evaluate construct validity (Anderson & Gerbing, 1988) before testing the hypothesized paths with SEM. The groupings for the first-order factors were confirmed by examining their construct reliability as outlined by Fornell and Larcker (1981). Their average variance extracted (AVE) and Cronbach’s alpha scores were also calculated and assessed. Subsequently, the groupings for the second-order factors of perceived value were confirmed by the same methodology.

RESULTS

Descriptive Statistics

Most respondents were from Laos (76.8%). More than half of the participants were female (59.0%). The largest age range of the respondents was 41–50 years (23.7%). The monthly household income of most respondents was less than $3000 (61.8%). In terms of education, most of the respondents had a bachelor’s degree (58.7%). More than half of the respondents had visited Udon Thani before (95.1%). The most recent medical tourism experience of the
respondents was within 6 months (43.1%). The highest frequency of the respondents traveling to Udon Thani in the past was 4–5 times (34.8%).

**Measurement**

The results of the measurement model are shown in Table 1. The CFA results showed that the measurement model fit the data ($x^2 = 1586.888$, df = 579, CFI = 0.927, TLI = 0.920, RMSEA = 0.052, SRMR = 0.075). All factor loadings were significant ($p < 0.001$). The reliability of the observed variables in each construct was reported using Cronbach’s alpha, for which all variables passed the required criteria (0.791–0.912; Hair et al., 2010). Similarly, most of the reliability coefficients for the data exceeded the minimum standard of 0.60 for reliability (Hair et al., 2010). Results of the Bartlett’s test of sphericity indicated values less than 0.05, and results of the Keiser–Meyer–Olkin (KMO) test ranged from 0.702 to 0.848 for all constructs. This result indicated that the data seemed suitable to identify factor dimensions. The composite reliability score was also high (0.794–0.903). Each construct exhibited an AVE score in the range 0.535–0.686. This result was higher than the standard value of 0.50 (Fornell & Larcker, 1981), supporting the convergent validity of the measures. These AVE values were all greater than the square of the correlation between pairs of constructs. Therefore, discriminant validity was apparent (Fornell & Larcker, 1981).

**Table 1.** Validity and reliability of the measurement scales of the first-order constructs

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Indicators</th>
<th>Factor loading</th>
<th>t-value</th>
<th>$\alpha$</th>
<th>KMO</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Healthcare quality</strong></td>
<td>Healthcare providers are professional and highly qualified.</td>
<td>0.613</td>
<td>21.783*</td>
<td>0.770</td>
<td>0.845</td>
<td>0.580</td>
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<tr>
<td></td>
<td>Healthcare providers can communicate in a language that I understand</td>
<td>0.725</td>
<td>31.198*</td>
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<tr>
<td></td>
<td>A high quality of service is maintained throughout.</td>
<td>0.864</td>
<td>55.095*</td>
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<tr>
<td></td>
<td>Healthcare providers have consistent quality.</td>
<td>0.821</td>
<td>47.379*</td>
<td></td>
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</tr>
<tr>
<td><strong>Package</strong></td>
<td>The healthcare-cum-tourism package is well organized.</td>
<td>0.762</td>
<td>30.942*</td>
<td>0.702</td>
<td>0.794</td>
<td>0.562</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Well-organized programs are available for my companions while I receive treatment.</td>
<td>0.775</td>
<td>31.309*</td>
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<tr>
<td></td>
<td>The package had an acceptable level of quality relative to other</td>
<td>0.711</td>
<td>26.183*</td>
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</tbody>
</table>
Chutharat Chitthanom

tourism packages I have purchased.

<table>
<thead>
<tr>
<th>Convenience</th>
<th>0.817</th>
<th>0.711</th>
<th>0.812</th>
<th>0.600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduced time and effort needed to find various medical/healthcare hospitals and hotels separately.</td>
<td>0.708</td>
<td>28.993*</td>
<td></td>
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<tr>
<td>Possibility to receive treatment in my room from highly trained professionals.</td>
<td>0.831</td>
<td>41.003*</td>
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<tr>
<td>Easily communication using my own language because of capable specially trained medical-tourism translators.</td>
<td>0.780</td>
<td>35.422*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Safety</th>
<th>0.886</th>
<th>0.803</th>
<th>0.888</th>
<th>0.665</th>
</tr>
</thead>
<tbody>
<tr>
<td>Udon Thani is a safe place to visit</td>
<td>0.750</td>
<td>36.588*</td>
<td></td>
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<tr>
<td>Transportation and communication networks within Udon Thani are good</td>
<td>0.825</td>
<td>50.281*</td>
<td></td>
<td></td>
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<tr>
<td>Stay in comfortable accommodation rooms of various sizes/types with my family/friends/others if necessary</td>
<td>0.875</td>
<td>64.586*</td>
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<tr>
<td>Reduced uncertainty of medical quality such as surgical outcomes (e.g., less malpractice/medical accidents) and nurse-patient ratio.</td>
<td>0.806</td>
<td>47.356*</td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Price</th>
<th>0.873</th>
<th>0.831</th>
<th>0.874</th>
<th>0.584</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism packages that come with medical care services are reasonably priced.</td>
<td>0.670</td>
<td>27.284*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The medical prices charged by this hospital are inexpensive.</td>
<td>0.810</td>
<td>46.742*</td>
<td></td>
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</tr>
<tr>
<td>The medical prices charged by this hospital are appropriate.</td>
<td>0.843</td>
<td>55.293*</td>
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<tr>
<td>I received good quality service at a reasonable price.</td>
<td>0.792</td>
<td>42.952*</td>
<td></td>
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<tr>
<td>Reflecting on the price I paid, I feel that I got a good deal.</td>
<td>0.690</td>
<td>28.811*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Medical activity</th>
<th>0.852</th>
<th>0.720</th>
<th>0.854</th>
<th>0.662</th>
</tr>
</thead>
<tbody>
<tr>
<td>People receive a nice welcome from the staff in the examination room</td>
<td>0.803</td>
<td>41.481*</td>
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<tr>
<td>There is a good cooperative atmosphere among staff</td>
<td>0.871</td>
<td>51.278*</td>
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<tr>
<td>Service from staff is prompt</td>
<td>0.763</td>
<td>37.081*</td>
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</tbody>
</table>
Table 1. (continues) The validity and reliability of the measurement scales of the first order constructs.

<table>
<thead>
<tr>
<th>Construct Indicators</th>
<th>Factor loading</th>
<th>t-value</th>
<th>α</th>
<th>KMO</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td></td>
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<tr>
<td>Traveling to Udon Thani for healthcare purposes is a wise decision</td>
<td>0.757</td>
<td>38.139*</td>
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<tr>
<td>Satisfactory results are obtained from traveling to Udon Thani for healthcare purposes</td>
<td>0.818</td>
<td>49.404*</td>
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<tr>
<td>Overall, traveling to Udon Thani for healthcare purposes is worth it</td>
<td>0.898</td>
<td>74.443*</td>
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<tr>
<td>I am satisfied with my decision to visit this hospital</td>
<td>0.834</td>
<td>56.368*</td>
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<tr>
<td>Trust</td>
<td></td>
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<tr>
<td>This hospital can be trusted</td>
<td>0.595</td>
<td>21.752*</td>
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<tr>
<td>This hospital solves my problem honestly</td>
<td>0.689</td>
<td>31.510*</td>
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<tr>
<td>This hospital is very honest</td>
<td>0.775</td>
<td>42.909*</td>
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<tr>
<td>This hospital cares for my benefit and welfare</td>
<td>0.870</td>
<td>71.622*</td>
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<tr>
<td>I strongly believe that this hospital can satisfy ones needs with understanding</td>
<td>0.895</td>
<td>82.700*</td>
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<tr>
<td>I strongly believe that the health service provided by this hospital is good for me</td>
<td>0.830</td>
<td>56.822*</td>
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<tr>
<td>Revisit</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am willing to visit this hospital when traveling abroad for medical treatment/healthcare</td>
<td>0.639</td>
<td>22.606*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I plan to stay at this hospital when traveling abroad for medical treatment/healthcare</td>
<td>0.680</td>
<td>25.887*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I will recommend this hospital to my friends and neighbors</td>
<td>0.829</td>
<td>39.631*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would like to visit this hospital again next time</td>
<td>0.764</td>
<td>33.326*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Model fit indices

Chi-squared = 1586.888, df= 579, CFI = 0.927, TLI = 0.920, RMSEA = 0.052, SRMR = 0.075

Note: *t-value are significant at p<0.001, α = Cronbach alpha reliability, KMO = KMO & Bartlett’s test of sphericity that were significant at p < 0.001, CR = Composite reliability, AVE = Average variance extracted
Discriminant validity was checked by comparing the square root for each value of the AVE. The results indicated good discriminant validity between any two factors (see Table 2). The construct reliability was also greater than 0.70 among all variables (Fornell & Larcker, 1981; Hair et al., 2010). Thus, discriminant validity could be accepted for this measurement model, and the discriminant validity between the constructs was supported.

Table 2. Discriminant validity of all constructs considered in the model

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SD</strong></td>
<td>0.505</td>
<td>0.589</td>
<td>0.524</td>
<td>0.566</td>
<td>0.546</td>
<td>0.526</td>
<td>0.535</td>
<td>0.536</td>
<td>0.523</td>
</tr>
</tbody>
</table>

Note: 1 = Healthcare quality, 2 = Package, 3 = Convenience, 4 = Safety, 5 = Price, 6 = Medical activity, 7 = Satisfaction, 8 = Trust, 9 = Revisit intention, and SD = Standard deviation; the bold numbers in parentheses on the diagonal are the square root of the AVE scores.

Table 3. Second-order CFA of the perceived functional value variable

<table>
<thead>
<tr>
<th>Perceived functional value</th>
<th>Standardize Factor Loading</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare quality</td>
<td>0.515</td>
<td>11.324*</td>
</tr>
<tr>
<td>Package</td>
<td>0.495</td>
<td>10.128*</td>
</tr>
<tr>
<td>Convenience</td>
<td>0.700</td>
<td>16.543*</td>
</tr>
<tr>
<td>Safety</td>
<td>0.598</td>
<td>14.368*</td>
</tr>
<tr>
<td>Price</td>
<td>0.542</td>
<td>12.150*</td>
</tr>
</tbody>
</table>

Note: *t-value is significant at p<0.001
Table 3 shows that the second-order CFA of perceived functional value variable for all factor loadings was significant \( (p < 0.001) \) with measurement items loading on their expected factors between 0.495–0.700. The following fit statistics of the measurement model, Chi-squared \( = 370.516, \text{df} = 144, \text{RMSEA} = 0.049, \text{SRMR} = 0.047, \text{CFI} = 0.963, \text{TLI} = 0.956 \) were all above the minimum criteria of the model fit indices.

Model Evaluation and Hypotheses Testing

SEM with maximum likelihood estimation was conducted using Mplus 7.0. The results showed a good model fit \( (x^2 = 1586.888, \text{df} = 579, p < 0.001, x^2/\text{df} = 2.740, \text{CFI} = 0.927, \text{TLI} = 0.920, \text{RMSEA} = 0.052, \text{SRMR} = 0.075) \). The hypothesized relationships were tested with SEM, and the empirical findings are shown in Table 4. Hypotheses 1 and 2 were tested and their results indicated that medical activity \( (\beta = 0.160) \) and perceived functional value \( (\beta = 0.457) \) exhibited a significant and positive effect on satisfaction. Thus, Hypotheses 1 and 2 were supported. When Hypotheses 3 and 4 were tested, the results showed that satisfaction exerted a significant influence on trust \( (\beta = 0.417) \) and revisit intention \( (\beta = 0.291) \). Thus, Hypotheses 3 and 4 were supported. Subsequently, Hypothesis 5 was evaluated. Trust exhibited a positive and significant influence on revisit intentions \( (\beta = 0.336) \). Therefore, Hypothesis 5 was also supported.

Serial Mediating Effects

As shown in Table 5, the results revealed that medical activity and perceived functional value had significant and indirect effects on revisit intentions \( (\beta = 0.023, p < 0.05; \beta = 0.067, p < 0.05) \) via satisfaction and trust. This finding indicated that satisfaction acted as a significant mediator. Hypotheses 6 and 7 predicted that medical activity \( (\beta = 0.022) \) and perceived functional value \( (\beta = 0.064) \) were associated with revisit intentions via satisfaction and trust. Therefore, Hypotheses 6 and 7 were supported. Hypotheses 8 and 9 posited that medical activity \( (\beta = 0.047) \) and perceived functional value \( (\beta = 0.133) \) were related to revisit intentions via satisfaction. Therefore, Hypotheses 8 and 9 were supported. Overall, satisfaction and trust played significant mediating roles in the proposed theoretical framework.

The results of the mediating effects are presented in Table 5. Medical activity had significant indirect effects on revisit intentions \( (\beta = 0.022, p < 0.05; 99.5\% \text{ bootstrap CI} = 0.001 \text{ lower limit, CI} = 0.044 \text{ upper limit}) \) via satisfaction and trust. Perceived functional value had significant indirect effects on revisit intentions \( (\beta = 0.064, p < 0.05; 99.5\% \text{ bootstrap CI} = 0.030 \text{ lower limit, CI} = 0.098 \text{ upper limit}) \) via satisfaction and trust. Medical activity had significant indirect effects on revisit intentions \( (\beta = 0.047, p < 0.05; 99.5\% \text{ bootstrap CI} = 0.003 \text{ lower limit, CI} = 0.090 \text{ upper limit}) \) via satisfaction. Finally,
perceived functional value had significant indirect effects on revisit intentions ($\beta = 0.133$, $p < 0.05$; 99.5% bootstrap CI = 0.058 lower limit, CI = 0.208 upper limit) via satisfaction.

Overall, satisfaction and trust played significant mediating roles in the proposed theoretical framework. Perceived functional value had the most significant indirect effect on revisit intentions via satisfaction. The result of the bootstrap method for all the mediation variables had a confidence interval of 0.5–99.5 and did not contain 0. Therefore, these variables were concluded to be mediators.

### Table 4. Structural model relationships obtained in this study

<table>
<thead>
<tr>
<th>Relationship</th>
<th>$\beta$</th>
<th>t-value</th>
<th>Hypotheses Supported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical activity</td>
<td>→</td>
<td>Satisfaction</td>
<td>0.160</td>
</tr>
<tr>
<td>Perceived values</td>
<td>→</td>
<td>Satisfaction</td>
<td>0.457</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>→</td>
<td>Trust</td>
<td>0.417</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>→</td>
<td>Revisit</td>
<td>0.291</td>
</tr>
<tr>
<td>Trust</td>
<td>→</td>
<td>Revisit</td>
<td>0.336</td>
</tr>
<tr>
<td>Medical activity</td>
<td>→</td>
<td>Satisfaction → Trust → Revisit</td>
<td>0.022</td>
</tr>
<tr>
<td>Perceived values</td>
<td>→</td>
<td>Satisfaction → Trust → Revisit</td>
<td>0.064</td>
</tr>
<tr>
<td>Medical activity</td>
<td>→</td>
<td>Satisfaction → Revisit</td>
<td>0.047</td>
</tr>
<tr>
<td>Perceived values</td>
<td>→</td>
<td>Satisfaction → Revisit</td>
<td>0.133</td>
</tr>
</tbody>
</table>

Note: *p-value was significant at $p < 0.05$

### Table 5. Mediation effects of satisfaction and trust

<table>
<thead>
<tr>
<th>Paths</th>
<th>Effect</th>
<th>t-value</th>
<th>p-value</th>
<th>Confidence Intervals 0.5%</th>
<th>99.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mediation effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA → SA → TR → RE</td>
<td>0.022</td>
<td>2.683</td>
<td>0.007</td>
<td>0.001</td>
<td>0.044</td>
</tr>
<tr>
<td>PV → SA → TR → RE</td>
<td>0.064</td>
<td>4.807</td>
<td>0.000</td>
<td>0.030</td>
<td>0.098</td>
</tr>
<tr>
<td>MA → SA → RE</td>
<td>0.047</td>
<td>2.725</td>
<td>0.006</td>
<td>0.003</td>
<td>0.090</td>
</tr>
<tr>
<td>PV → SA → RE</td>
<td>0.133</td>
<td>4.554</td>
<td>0.000</td>
<td>0.058</td>
<td>0.208</td>
</tr>
</tbody>
</table>

Note: MA = Medical activity, PV = Perceived functional values, SA = Satisfaction, TR = Trust, and RE = Revisit
CONCLUSION

This study was conducted to test a research model. The results ascertained the critical role of satisfaction in predicting CLMV medical tourist behavioral outcomes, indicating that medical care hospitals and medical activity were judged, and the perceived value of these judgments led to revisit intentions and consequent emotions and attitudes.

These results were in line with the findings of Kim et al. (2017). Although the role of the price of perceived value significantly affected the relationship between satisfaction and revisit intentions in medical tourism, price was not the principal main thrust for healthcare tourists to settle on their choices as concluded in similar studies (e.g., Heung et al., 2011; Liang et al., 2017; Wongkit & McKercher, 2016; Yeoh et al., 2013). Instead, the convenience of the hospital destination was the most important factor for the perceived value construct. It was also found that trust had a positive effect on revisit intentions, which was consistent with the results of previous studies. Han and Hyun (2015) indicated that trust in staff and hospital had a significant effect on revisit intentions for medical care from the healthcare tourism perspective. This study has established that medical activity and perceived functional value can determine satisfaction with medical clinics and hospitals, which in turn can influence the intention to revisit Udon Thani. Consequently, it should be considered a choice in the medical tourism industry.

IMPLICATIONS

This study contributes to the understanding of CLMV medical tourist literature. It was found that medical activity and perceived functional value can determine satisfaction with a medical clinic, and this in turn can influence revisit intentions for travel to Udon Thani. Consequently, the same hospital may be referred to other people for medical care by satisfied customers. The dimensions of environment and medical activity also separately influence positive emotion, and satisfaction with medical clinics and hospitals, among international medical tourists.

The results suggest that the combination of modern and traditional medicines should be promoted as a distinct medical activity or treatment for CLMV medical tourists. The atmosphere of a hospital should also be established, in particular for CLMV medical tourists, to provide them with an efficient and comfortable environment. As verified in this study, service providers or administrations in the medical tourism industry should actively improve the attributes that provide various benefits not readily available in regular hospitals and clinics, to reduce international tourists’ apprehension regarding medical tourism.

The results also illustrated that convenience, rather than price, was the
most important of the perceived functional values. Thus, simply focusing on low prices and revenue from medical tourism may not always be an appropriate solution for the development of the medical tourism industry (Vijaya, 2010). Scholars, researchers, and practitioners must strive to create a positive experience for medical tourists. The government and all stakeholders of the medical tourism industry should avoid joining in a price competition that may dilute a destination’s reputation for medical excellence. Hence, they should improve reputation and revisit intentions to the destination for medical care by importing advanced technologies, seeking medical expertise from overseas, and developing better in-house medical expertise.

The factors of medical activity, staff, and doctors, come together to create a medical servicescape embodied in satisfaction and trust, thereby leading to desirable outcomes and revisit intentions for the destination. The results of this study imply that efficient management of these mediating constructs is critical when enhancing medical tourists’ revisit intentions for the destination. Hospitality and tourism research should identify the mediating characteristics of these variables when formulating theoretical or conceptual frameworks and models associated with medical tourism. Service practitioners should determine the simplest ways to extend the satisfaction and level of trust of medical tourists regarding the effective use of these discovered attributes in inducing revisit intentions.

RECOMMENDATIONS

This study has several limitations which should be considered in future studies. First, the assessment of satisfaction and trust among tourist patients was subjective, and the choice to use a questionnaire as the quantitative device meant that not all judgements could be reflected in the data. Future research could explore or adopt qualitative methods in addition to these quantitative techniques in order to better assess hospital services. Second, the study focused on only one dimension of the servicescape (medical activity). This dimension was selected using a subjective perspective. Future research should explore how other dimensions affect the behavioral outcomes of tourists. Third, the research model was tested by considering only the medical tourism industry in Udon Thani. Future studies should replicate the model in different contexts or settings to check the generalizability of the empirical results as this may be a useful behavioral study regarding the constraints of attracting medical tourists in specific countries.

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