Factors Influencing Repurchase Intention Among Foreign Medical Tourists in Bangkok, Thailand: A Structural Equation Model

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Abstract: Thailand is already a top global medical tourism destination, yet it continues to improve its products and services intended for foreign medical tourists (FMT). Thailand’s 2017–2026 policy, aimed at positioning itself as a world-class medical hub, is geared precisely to ensure that the tourism industry is continually improved and that the FMT are always considered, for example, in terms of their repurchase intention. Repurchase intention is strategic to Thailand: it has implications for the repeat visits among the FMT as well as it is indicative of the industry quality, both of which have far-reaching consequences for the country’s tourist arrivals and revenues. Employing a structural equation modeling, this study demonstrates the effects of five factors, namely, customer expectation, perceived quality, brand experience, perceived value, and customer satisfaction, on repurchase intention among a sample of 600 FMT, who were recruited and interviewed at 16 hospitals in Bangkok. Results indicate that customer satisfaction has the foremost effect on repurchase intention, and followed, albeit with far lesser effects, by customer expectation, brand experience, perceived value, and perceived quality, in that order. In general, the five-factor model was found to have only explained 34.2% of the variance in the repurchase intention among the FMT interviewed. The model is subject to further testing and validation.

Keywords: repurchase intention, foreign medical tourists, customer expectation, customer satisfaction, structural equation modeling, Thailand

Although foreign medical tourists (FMT)—those who cross national boundaries to purchase products and services for health reasons—are a relatively new sub-category of travelers, they are already a force to reckon with. Globally, their number has been increasing by 25% per year (Braverman, 2016), and their contribution to the economy is enormous, which is pegged at US$40 billion to US$60 billion (Morgan, 2010). Contingent upon their needs and wherewithal, as well as upon the quality of the products and services offered to them, FMT travel to numerous countries worldwide to access the best and the most reasonably-priced medical products and services possible, for themselves or their loved ones. Many FMT opt to visit Thailand, a highly-ranked destination for medical tourism in the world. In 2017, the country received 2.4 million FMT (Ngamsangchaikit, 2017), and the number is expected
to increase within the foreseeable future, at 14% annually (KPMG in Thailand, 2018). These tourists are attracted by the country’s private sector-based medical products and services, whose attributes, such as that related to cost, infrastructure, government readiness, medicine availability, and professional competence, in their descending order, are vetted as globally competitive (Post Reporters, 2019). Thailand’s policy for 2017–2026, which seeks to transform the country into a world-class medical hub, would ensure that the aforementioned industry attributes—along with the easing of relevant visa and permission-to-stay requirements—are continually improved to attract and benefit an even greater number of FMT (KPMG in Thailand, 2018).

Certainly, the competitive attributes of the medical tourism industry of Thailand—whether these attributes are a consequence of past, ongoing, and prospective improvements—may be used as a marketing and promotion message to entice FMT to revisit. However, it would also be highly strategic if these attributes are assessed, not just by industry authorities, but more importantly, by the FMT themselves. Many of these FMT are from industrialized countries or affluent tourists who are accustomed to routinely accessing high-quality products and services in their home country or elsewhere. Thus, prior to their visit to Thailand, they should already be in possession of subjectivities (i.e., expectation, perception, and satisfaction) that could influence how they would assess and conclude their medical tourism visit. The realm of the overall experience of the FMT may not necessarily synchronize with the improvements-based messages of the country’s marketing and promotion. Thus, knowing the FMT’s assessment of their own visit is indeed crucial. Results from such an assessment would help explain the intention of these tourists to repurchase. Repurchase intention is relevant for marketing and promotion because it is indicative of the quality of the medical tourism as well as of the tourists’ potential to revisit, both of which have overarching consequences for Thailand’s tourism revenue growth.

Studies have established the empirical nexus of repurchase intention with tourists’ subjective accounts in non-medical tourism topics (Ashfaq, Yun, Waheed, Khan, & Farrukh, 2019; Blery, 2003) as well as in those pertaining—in one way or another—to medical tourism (Kim, Koo, Shin, & Lee, 2017; Som, Marzuki, Yousefi, & AbuKhalifeh, 2012). This report discusses a study carried out among the FMT in Thailand, with intent, like that of prior studies, to similarly demonstrate the effects of a set of influences on the repurchase intention of foreign visitors. The FMT in Thailand are under-represented in the published research literature in the context of the present topic. Data are more than doubly significant for Thailand as it aims to reach a far higher ranking in global medical tourism.

**Study Framework and Hypotheses**

Repurchase intention refers to the decision of the customers to engage in future activities with the retailer or supplier (Hume, Mort, & Winzar, 2007). Intention, particularly as crucial as crossing a national border to acquire medical products and services in another country, is far from being a superficial or a whimsical phenomenon. On the contrary, intention is complex, with conative (i.e., having a purpose), attitudinal (i.e., having favorable predisposition), and behavioral (i.e., having a specific target action within a time period) dimensions. When the FMT express a repurchase intention, the said intention is presumed to be a consequence, a product, or an effect of an array of influences. For the current study, repurchase intention is hypothesized to be due to the effects, directly or otherwise, of five selected factors, namely, customer expectation, perceived quality, brand experience, perceived value, and customer satisfaction (the last two are the mediating factors in that order; see Figure 1).

When FMT leave their country of origin to acquire medical products and services in another country, they do already carry with them one or more expectations about these provisions. Customer expectation refers to a set of held-beliefs, values, and standards—based, for instance, on someone else’s advice, individual needs, news, and previous experience—that FMT have towards the medical products and services offered. Customer expectation, which can be likened to having a lens through which one would evaluate their booked medical tourism visit, could be rigid and fixed or flexible. In either case, the said expectation gets to be validated, modified, or dispensed with at some point, after which the said process may result in certain outcomes—for instance, it may lead to FMT concluding about the perceived value and their satisfaction (or dissatisfaction) of their medical tourism visit. Customer expectation is established in the published literature for its empirical association
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with perceived value and customer satisfaction (e.g., Mostaghimi, Akhlagh, & Danesh, 2016; Thai, 2015). It is thus posited here that customer expectation has a direct effect on customer satisfaction (H1a) and perceived value (H1b).

Upon arriving at the host country, and in the process of commencing and experiencing their medical tourism visit and treatment, FMT get a chance to see, hear, feel, smell, or touch, or be touched by, the medical products and services. Consequently, FMT are predisposed to forming a perception of the quality of their medical tourism visit (or lack thereof), with respect, for example, to the actual medical services they receive, the ability and skills of their providers, the efficacy of their treatment, even including the larger environment within which their visit occurs. Just like customer expectation, the perception of the quality of the medical tourism visit should logically lead to perceived value and to customer satisfaction (these variables would, in turn, affect repurchase intention). Several studies have reported on the empirical linkage between perceived quality, on the one hand, and customer satisfaction and perceived value on the other (Yee & San, 2011; Souki & Filho, 2008). We thus hypothesized that perceived quality has a direct effect on customer satisfaction (H2a) and perceived value (H2b).

After their medical treatment and visit, which could vary in duration in days, weeks, months, or even years, and after having gone through and have been fully immersed into the process, FMT should now be more than ready to form a judgment, including conceiving related subjectivities and emotions, regarding their experience of Thailand’s brand of medical tourism. The medical tourism of the country is, by no means, only about the provision of products and services, but—given the massive attention bestowed to planning, organizing, marketing and promoting, and operating the industry—it is also about the provision of the Thai brand, which is rated as globally competitive and high-end. The brand experience is multi-pronged, comprising sensory, affective, intellectual, behavioral, and trust dimensions. A positive overall brand experience should thus elicit glee in FMT because the mention of the brand would remind them of the pleasant memories of having been nurtured and made to feel safe and secure in Thailand (a negative overall brand experience would have opposite outcomes). As it is holistic and over-arching, brand experience carries the potential to independently affect repurchase intention, but additionally, the brand experience could first lead to customer satisfaction before indirectly affecting repurchase intention. The indirect effect of brand experience (with customer satisfaction as the mediating factor) and its direct effect on repurchase intention are underscored in the empirical literature (Sayed, 2015; Sahin, Kitapci, & Zehir, 2012). Thus, we
hypothesize that brand experience has a direct effect on repurchase intention (H3a) and has an indirect effect on repurchase intention through customer satisfaction (H3b).

Following their brand experience, FMT should have perceived the value of their medical tourism visit in Thailand. That is, they could have conceived that their efforts of having left their country of origin in search of medical treatment in Thailand is worth their money and time, and a valuable opportunity for them. Perceived value is very crucial because the factor ultimately reduces the entire medical tourism visit into a cost-and-benefit analysis. In this day and age where rational thinking and pragmatism appear normative, perceived value should be at the heart—independently or in tandem with another factor such as customer satisfaction—of FMT’s intention to buy or not to buy another medical tourism visit from the same country-provider. The literature abounds with evidence regarding the relationship of perceived value, customer satisfaction, and repurchase intention (e.g., Wu, Chen, Chen, & Cheng, 2014). In this study, perceived value is posited for its direct effect on repurchase intention (H4a) and its indirect effect on repurchase intention through customer satisfaction (H4b).

The ultimate indicator of the success of FMT’s visit—at least in the current study—should revolve around the satisfaction of FMT as Thailand customers. Customer satisfaction is about knowing and feeling that one’s goal vis-à-vis the medical products and services one seeks is met and fulfilled, or even exceeds far beyond one’s expectation. In this study, FMT are satisfied customers if they have received services, received the expected services, received better services than they expected, and if they also hold an overall positive impression of the products and services as a whole. Studies have ample evidence disclosing the empirical relationship of customer satisfaction with repurchase intention (Vuthisopon & Srinuan, 2017; He, Chan, & Tse, 2008). Under normal circumstances, the intention to repurchase is less likely to occur without customer satisfaction. In this respect, customer satisfaction is hypothesized to have a direct effect on repurchase intention (H5).

**Methods**

The study surveyed 16 hospitals in metropolitan Bangkok from where a sample of 600 FMT were recruited and interviewed using a self-accomplished questionnaire. The sample size per hospital was proportional to the total number of FMT registered in every hospital at the time of the study; thus, larger sample sizes were drawn from hospitals with larger FMT population. Across the 16 hospitals included in the survey, the samples of FMT interviewed ranged from about 1% (n=6) to 44.7% (n=268).

The factors examined in this study were measured using slightly-modified scales on repurchase intention, customer expectation, perceived value, brand experience, perceived quality, and customer satisfaction. Prior to finalizing and including them in the survey questionnaire, these scales were first tested. The test results suggested that the scales are highly reliable based on their respective Cronbach’s alpha coefficient: customer expectation (0.89), perceived quality (0.95), brand experience (0.93), perceived value (0.89), customer satisfaction (0.94), and repurchase intention (0.89). Accomplished questionnaires were checked for accuracy and completeness before they were recoded and encoded using the SPSS 22.0 and LISREL 9.2. The validity of the constructs was examined, and the results from the confirmatory factor analysis suggest that the proposed structural equation model fits the empirical data well because all the indices met the respective criteria, such as the comparative fit index and goodness of fit index at >0.90, the root mean square error of approximation (RMSEA) at <0.05, and the significance of the t-value at p<0.001.

**Results**

Of the 600 FMT interviewed in this study, 63.0% were females, and 37.0% were males. About half (48.7%) owned a commercial business, and the rest were employed in various industries in their home countries. These tourists visited Thailand for some days or some weeks, and they had varying purposes, covering major or minor procedures, for seeking medical products and services in the host country. For their medical treatment, some FMT spent as little as US$100, but others spent several hundred or thousands of U.S. dollars.

All but three of the hypotheses posited for the set of factors examined in this study have been confirmed for their statistically significant direct or indirect effects on repurchase intention. Customer expectation was
found to have a statistically significant direct effect on customer satisfaction (H1a) and perceived value (H1b). The direct effect of perceived quality on customer expectation was not validated (H2a), although the direct effect of perceived quality on perceived value was confirmed (H2b). Furthermore, the direct effect of brand experience on repurchase intention was not statistically significant (H3a), but the indirect effect of brand experience on repurchase intention through customer satisfaction was statistically significant (H4a). Although perceived value had a very weak and, thus, a non-statistically significant effect on repurchase intention (H4a), its indirect effect was confirmed to be related to repurchase intention (H4b). Customer satisfaction was observed for its very strong direct effect on repurchase intention (H5).

Essentially, the findings suggest that:

1. Customer expectation is a very important factor for its direct effect on perceived value and customer satisfaction and its indirect effect on repurchase intention.
2. On its own, perceived quality is a weak determinant of customer satisfaction and repurchase intention, but a strong determinant of perceived value.
3. Brand experience is also a weak direct determinant of repurchase intention, but a strong determinant of customer satisfaction.
4. Perceived value is also a weak determinant of repurchase intention, but a determinant of customer satisfaction.
5. Customer satisfaction is a strong determinant of repurchase intention.

Overall, the coefficient of determination ($R^2$) indicates that 34.2% of the variance in the repurchase intention of the FMT in Thailand is due to consumer satisfaction, customer expectation, brand experience, perceived value, and perceived quality, in that order. Customer satisfaction is the most important determinant of repurchase intention. Furthermore, $R^2$ indicates that 60.5% of the variance in customer satisfaction among FMT in Thailand can be explained by customer expectation, perceived quality, brand experience, and perceived value. Brand experience is the most important determinant of customer satisfaction, followed by customer expectation. Finally,

Table 1

<table>
<thead>
<tr>
<th>Variables</th>
<th>Repurchase intention</th>
<th>Customer satisfaction</th>
<th>Perceived value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total effects</td>
<td>Indirect effects</td>
<td>Direct effects</td>
</tr>
<tr>
<td>Brand experience</td>
<td>0.592**</td>
<td>0.590**</td>
<td>0.020</td>
</tr>
<tr>
<td>Perceived quality</td>
<td>0.030</td>
<td>0.030</td>
<td>-</td>
</tr>
<tr>
<td>Customer expectation</td>
<td>0.420*</td>
<td>0.420*</td>
<td>-</td>
</tr>
<tr>
<td>Customer satisfaction</td>
<td>0.820**</td>
<td>0.820**</td>
<td>-</td>
</tr>
<tr>
<td>Perceived value</td>
<td>0.330*</td>
<td>0.280*</td>
<td>0.050</td>
</tr>
</tbody>
</table>

$X^2$(Chi-Square) = 507.67, df = 196, p-value = 0.001, GFI = 0.94, AGFI = 0.95, IFI = 0.97, TLI = 0.97, CFI = 0.98, RMR = 0.022, RMSEA = 0.05

$p<0.05$, **$p<0.01$
R² likewise suggests that 46.8% of the variance in the perceived value among FMT in Thailand are due to customer expectation and perceived quality.

**Discussion**

Using structural equation modeling, this study discussed evidence that revealed the direct and indirect effects of five selected factors on repurchase intention among the FMT in Thailand. These data can be used as a guidepost to encourage the FMT in Thailand to revisit. Although Thailand is already a top brand in global medical tourism, it remains resolute to achieving—or even exceeding—its goal of 14% annual growth rate in tourist arrivals and its target revenue. At 12.3% share of the national gross domestic product in 2018 (Bangkok Bank, 2019), foreign tourism, including medical tourism, is a bedrock of the Thai economy. Evidence-based and nuanced information has always been key to the country’s global tourism marketing and promotion strategies.

Repurchase intention implies that the FMT would have to go through and experience the same process of leaving their country to re-travel to Thailand to again avail—for themselves, their relative, or friend—of the same, a related, or a different medical treatment. What factor/s would then influence FMT to retake the exact trip to Thailand—and perhaps not be tempted to go to other countries (e.g., Singapore) for a new, even a fresher medical tourism experience? The structural equation model presented in this study revealed that customer satisfaction would be key. Thus, FMT’s prior experience in Thailand—of being satisfied with the services they received—would determine their repurchase intention. In effect, when FMT are satisfied, they are more or less assured to re-acquire during their next visit similar, or perhaps even higher, quality-level services. Customer satisfaction mirrors the dependability, and thus, the regularity and stability of services. Foreign tourists, in general, appear to want to revisit countries where the products and services are in order (rather than in chaos), and where there is predictability (rather than uncertainty). Given the customer satisfaction prevailing among the FMT in Thailand, as reported in this as well as in other studies (e.g., Mechinda, Serirat, Anuwichanont, & Gulid,
Additional results from the structural equation model suggest that, although customer satisfaction is the core determinant of repurchase intention, it should not be detached from, but rather be closely latched, with customer expectation and brand experience. That is, FMT would be satisfied customers, provided their expectation as customers is properly responded to and that they are made to experience the country’s brand of medical tourism, albeit it should be stressed that brand experience alone—without customer satisfaction—has no effect on repurchase intention.

Interestingly, the perceived quality of medical tourism was not found as materially significant to the triangular relationship of customer satisfaction, customer expectation, and brand experience, probably because the perception of quality is already presumed once customer expectation is fulfilled or when one has been immersed into an unforgettable experience of the brand. However, the perceived value of medical tourism visits was statistically significantly related to customer satisfaction and customer expectation. This finding signifies that the FMT were judging their entire visit to Thailand in largely practical terms and were concluding that their visit was worth all their while. Even FMT’s perception of quality, which was found as the weakest determinant in the model and was only statistically significantly related solely with perceived value, seemed to have been similarly evaluated from a cost-benefit dichotomy.

As a global medical tourism leader, Thailand is more than prepared to meet the challenge of drawing more FMT to repurchase. The country has an enormous amount of experience, wisdom, wherewithal, political will, and commitment to continually meet and surpass the demands of satisfying the FMT, responding to their customer expectation, giving them a brand experience that is uniquely Thai, and of making their entire visit worthy of all their invested resources. The marked capacity of Thailand to meeting all these challenges is underscored in the latest global medical tourism rating where the country was ranked #6 (Post Reporters, 2019), as well as in its national policy of 2017–2026 where it offers an action plan for sustained industry improvements (KPMG in Thailand, 2018). Across these challenges, however, Thailand has to urgently resolve the low rating of the professional competence of its medical tourism providers (“US Review Ranks Thailand’s Healthcare,” 2019).

Overall, the structural equation model developed in the present study suggests that repurchase intention among the FMT in Thailand is affected, foremost, by customer satisfaction, and trailed—albeit with far lesser effects—by customer expectation, brand experience, perceived value, and perceived quality, in their decreasing order of significance. The five-factor model was found to have just explained 34.2% of the variance in the repurchase intention among the FMT in Thailand, implying that there are many more determinants that have yet to be examined for their potential effects. As it is based only upon a sample of hospital-based FMT in Bangkok, the model is very tentative and subject to validation. Future research has to stratify FMT samples according to whether their medical problems and treatments are major or minor. Studies revealed that not all foreigners visit Thailand for complex medical procedures, such as the FTM from the United Kingdom (Noree, Hanefeld, & Smith, 2014). A detailed and substantive medical profiling of Thailand-based FMT would be key to the model’s prospective development.

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Declaration of ownership

This report is our original work.

Conflict of interest

None.

Ethical clearance

The study was approved by the institution.

References


