

The Role of Hospital Image and Medical Service Quality on the Intention of Patients from the Riau Islands Province to Revisit Hospitals in Malaysia.

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ABSTRACT

This study aims to analyze the effects of hospital image and perceived medical quality on trust and on revisit intention among patients from the Riau Islands Province who engage in medical tourism to Malaysia. This research employs a quantitative approach, using a survey method with questionnaires distributed to 120 respondents selected via purposive sampling. The data were analyzed using Partial Least Squares-Structural Equation Modeling (PLS-SEM) with SmartPLS 3 software. The results indicate that hospital image and perceived medical quality have a positive and significant effect on trust. Furthermore, trust is also found to have a positive and significant effect on revisit intention. These findings highlight that trust plays a crucial role in driving patient loyalty in medical tourism. This study implies that improving hospital image and medical service quality can strengthen patient trust, which ultimately enhances revisit intention.

Keywords: Medical Quality; Hospital Image; Trust; Revisit Intention.

Introduction

Asia has emerged as a major competitor in the global medical tourism industry, offering high-quality, cost-effective healthcare services. The region has become an important hub providing affordable yet high-standard medical treatments [1]. Countries such as India, Thailand, and Malaysia compete as leading medical tourism destinations [2]. India offers advanced medical technologies, with many hospitals accredited by national bodies and the Joint Commission International (JCI). Thailand is known for sophisticated dental care and cosmetic and dermatological procedures. Malaysia, meanwhile, has become one of the primary medical destinations for Indonesian citizens.

According to the Hospital Accreditation Commission (2020), several Indonesian hospitals have obtained international accreditation from JCI. However, many Indonesians still prefer seeking treatment abroad. The high interest in overseas healthcare reflects a phenomenon that warrants attention in the national healthcare sector [3]. Key factors attracting Indonesian patients to Malaysian hospitals include effective and accurate medical prescriptions, affordable costs, and ease of communication [4].

Medical tourism is a rapidly growing industry that integrates healthcare services with tourism [5]. It offers not only quality medical care but also accommodation, shopping opportunities, and recreational activities [2]. Medical tourism may generate positive impacts for destination countries by increasing healthcare revenues and boosting local economies [6]. However, the trend of patients seeking treatment abroad can negatively affect hospitals in their home countries, such as Indonesia, which continues to face limitations in medical infrastructure [7]. Malaysia's medical tourism industry generated MYR 1.8 billion in 2019, with over one million medical tourists receiving care there. Its competitive advantages include favorable exchange rates, licensed medical professionals, political and economic stability, high-demand healthcare facilities, and affordable medical costs [8].

The topic of revisit intentions among Indonesian medical tourists to Malaysia is an interesting research topic. Previous researchers have examined the influence of variables influencing patient satisfaction and loyalty to revisit medical tourism destinations, such as affordable medical costs, ease of communication, and accessibility [3,4,8]. In contrast to previous studies that focus on external factors such as cost, location, national facilities, and international marketing strategies, this study examines internal hospital factors. Institutional image, perceived service quality, medical staff professionalism, and patient service experiences are believed to foster trust and strengthen revisit intentions, thereby enhancing hospital competitiveness in the medical tourism industry.

Developing these research variables will provide new insights into the current behavior of Indonesian patients seeking medical tourism to Malaysia. The Indonesian government and hospital management will use these findings to develop appropriate policies and strategies to ensure Indonesia's medical tourism can compete with Malaysia's.

Hypothesis Development Medical tourism.

Medical tourism is described as a rapidly growing industry in which individuals often travel long distances abroad to obtain healthcare services, dental treatments, and medical procedures. Medical tourism refers to travel undertaken by individuals to another country to seek healthcare services, medical treatment, or specific procedures perceived to be better or more affordable than those available in their home country. This activity generally occurs because patients believe that foreign healthcare facilities are able to offer superior treatment quality [8].

The growth of medical tourism is driven by advancements in medical technology, improved access to transportation, and patients' ability to compare services across countries. Malaysia, Thailand, India, and several other nations have emerged as leading medical tourism destinations due to their high-quality services, competitive costs, and convenient access for international patients, including those from Indonesia [2].

Revisit intention.

Revisit intention in the context of medical tourism refers to a patient's tendency to return to the same healthcare service in the future, based on previous experiences. According to Mohd Isa et al., [9] Revisit intention reflects a form of patient behavioral loyalty based on evaluations of service quality, trust, and the overall experience during treatment [9]. This revisit intention not only indicates patient satisfaction but also reflects the patient's confidence in the hospital's ability to provide consistent, reliable services. In the context of the medical tourism industry, particularly in Malaysia, revisit intention is a crucial indicator of industry sustainability because the costs of attracting new patients are relatively higher than retaining existing ones. Furthermore, the high influx of Indonesian patients to Malaysia indicates that loyalty in the form of repeat visits is a major source of revenue for this industry.

A study revealed that Indonesia is a major contributor of patients to destinations like Malaysia, contributing over 75% to the Malaysian medical tourism sector, demonstrating the importance of patient retention through increased repeat visit intentions [10]. Other findings emphasize that patient loyalty, reflected in repeat visit intentions and recommendations to others, is key to creating competitive advantage and sustainability in cross-border healthcare [11]. Thus, repeat visit intentions serve not only as an indicator of service success but also as a strategic factor in ensuring the growth, competitiveness, and sustainability of the medical tourism industry.

Hospital Image

Hospital image is a perceptual construct that reflects patients' overall thoughts, beliefs, and associations with a hospital. This image is formed through various marketing activities and information interactions, such as word of mouth, social media, advertising, and price perceptions [12]. In service industries like medical tourism, hospital image is crucial because healthcare services are complex and difficult to evaluate directly. Therefore, patients tend to use hospital images as an indicator of service quality, reputation, and reliability. A strong image not only helps hospitals build a competitive advantage but also influences patient perceptions and decisions when choosing healthcare services in various countries.

Other findings explain that hospital image plays a role in shaping patient trust as a basis for belief in the hospital's credibility and competence, although in some contexts this influence is not always significant [9]. Meanwhile, research by Ratnasari et al. [11] shows that trust formed from positive perceptions of a healthcare institution drives patient loyalty, which is reflected in the intention to revisit the service (revisit intention) and recommend it to others. Kwary [13] A study shows that hospital image has a positive and significant influence on behavioral intentions, reflected in increased patient intentions to make medical visits, re-select services, and recommend them to others. Thus, hospital image can be understood as an initial factor that shapes trust and directly or indirectly drives patient revisit intentions or loyalty in the context of medical tourism [13].

Perceived Medical Quality

Medical quality refers to patients' assessments of the quality of products/services provided by a hospital. The relationship between medical quality, trust, and revisit intention has been consistently emphasized in previous studies [9,14]. Research findings [9] indicate that perceived medical service quality has a significant positive influence on patient trust, meaning that higher perceived service quality is associated with greater trust in the hospital. However, this study also found that perceived medical quality did not have a significant direct influence on revisit intention, indicating that cognitive evaluations of service quality alone are insufficient to drive revisit behavior. Patients tend to consider affective and relational aspects more in their decision-making.

Conversely, another study [14] revealed that excellent service quality not only positively influences patient trust in a hospital but also impacts loyalty, both directly and indirectly, through trust as a partial mediator. This suggests that high service quality, particularly in safety and reliability, can foster trust and ultimately strengthen patient loyalty.

Trust

In this study, trust is defined as a patient's belief in a healthcare provider's ability, integrity, and reliability to provide appropriate diagnosis and treatment, particularly in high-risk situations such as medical care. This trust is crucial because patients risk not only their costs but also their health and safety when visiting medical tourism destinations. In the medical tourism industry, patient trust plays a crucial role in their intention to revisit a medical tourism destination. This means that if a medical tourism destination is able to meet patient expectations, trust will be built and ultimately lead to repeat visits [9].

Other findings indicate that patients who engage in medical tourism expect to receive high-quality healthcare. When a medical tourism destination is perceived as reliable and trustworthy, this increases patient satisfaction, ultimately encouraging them to recommend the destination to others [14]. Furthermore, Liu et al. [15] emphasized that trust is a key factor directly influencing patient loyalty. Patients who have high levels of trust in a hospital are more likely to return and maintain long-term relationships with their healthcare providers. Thus, trust not only plays a role as a psychological factor but also as a major determinant in shaping loyalty and return-visit decisions in the context of medical tourism.

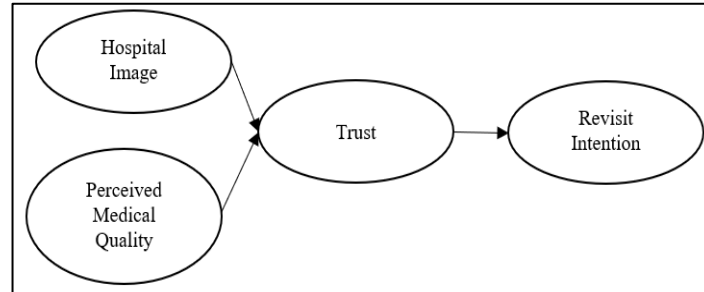


Figure 1. Research Framework

Research Method

This study used a quantitative, survey-based approach to achieve its objectives. Data were collected by distributing questionnaires to respondents who met the research criteria. The questionnaire instrument used in this study was adapted from a previous study by Moh Isa et al. [9] thus providing a strong basis for validity.

The sample size was determined using the formula recommended by Hair et al. [16], in which the minimum sample size is calculated as the product of the number of indicators and 10. Given that this study used 12 indicators, the minimum number of respondents required was 120. This number was deemed sufficient for further data analysis.

The sampling technique used was purposive sampling, selecting respondents based on specific criteria. The respondent criteria in this study were: (1) individuals from districts/cities in the Riau Islands Province, and (2) experience in medical tourism to hospitals in Malaysia.

Data analysis was conducted using SmartPLS 3 software, selected for its ability to handle relatively small sample sizes and its suitability for Partial Least Squares (PLS-SEM)-based model analysis. The data analysis stages include descriptive analysis to describe respondent characteristics, validity and reliability tests to assess the quality of the research instrument, analysis of the coefficient of determination (R^2), and hypothesis testing to determine the relationships among variables in the research model.

Results and Discussion

Respondent demographics.

Table 1 shows the demographic data for respondents, including gender, age, and Place of Residence.

Table 1. Respondent demographics

Variable	Frequency	%
Gender		
Male	37	30.8%
Female	83	69.2%
Age		
< 18 years	6	5%
18 – 30 years	105	87.5%
31 – 45 years	5	4.2%
46 – 55 years	3	2.5%
56 – 65 years	1	0.8%
Place of Residence		
Batam	90	75%
Tanjung Pinang	12	10%
Tanjung Balai Karimun	6	5%
Tanjung Batu	2	1.67%

Pulau Buru	3	2.50%
Belakang Padang	1	0.83%

The gender distribution indicates that the majority of respondents are women, who, in the context of healthcare services, tend to be more proactive in seeking information about symptoms they experience and in demanding high-quality care [17]. The age distribution shows that most respondents are relatively young, who may be more open to using modern healthcare services and information technology. Younger adults are also generally more responsive to promotional information related to healthcare services [18]. The distribution of residence data shows that Batam contributes the largest share of respondents in this study. This is reasonable, as Batam has a strong economic structure and is geographically located very close to Malaysia [19].

Validity and Reliability.

At this stage, the validity and reliability of the measurement instrument will be tested. Validity is assessed based on the outer loading and Average Variance Extracted (AVE) values. If the outer loading exceeds 0.6 and the AVE exceeds 0.5, validity can be concluded. Reliability is assessed using Cronbach's Alpha and composite reliability. If Cronbach's Alpha and Composite Reliability values are above 0.7, this indicates excellent internal consistency and measurement stability. Therefore, the instrument can be concluded as reliable [20].

Table 2. Validity and Reliability test results

Indicator	Outer Loading	AVE	Cronbach Alpha	Composite Reliability
HI1	0.674			
HI2	0.696	0.533	0.748	0.696
HI3	0.601			
PMQ1	0.724			
PMQ2	0.702	0.595	0.749	0.746
PMQ3	0.684			
T1	0.928	0.582	0.732	0.723
T2	0.649			
RI1	0.862			
RI2	0.791	0.707	0.792	0.879
RI3	0.868			

The coefficient of determination (R-squared).

The coefficient of determination (R-squared) measures the extent to which an independent variable explains variation in the dependent variable in a structural model. An R-square value closer to 1 indicates a stronger explanatory power of the model.

Table 3. The coefficient of determination (R-squared) test results

Variabel	R squares
Revisit intention	0,371
Trust	0,376

The coefficient of determination (R²) indicates the extent to which the independent variables explain the dependent variable in the research model. Based on the analysis, the R² value for revisit intention was 0.371, indicating that 37.1% of the variation in revisit intention can be explained by hospital image, perceived medical quality, and trust, while the remaining 62.9% is attributable to other factors outside the model. Meanwhile, the R² value for trust was 0.376, indicating that 37.6% of the variation in trust can be explained by hospital image and perceived medical quality, while the remaining 62.4% is influenced by other variables not examined. Referring to Hair et al.'s criteria, the R² value in this study falls into the weak to moderate category [16], indicating that the model has sufficient explanatory power, but that many other factors still play a role in influencing trust and revisit intention in the context of medical tourism.

Hypothesis testing

Once all research constructs have been declared valid and reliable, the next stage is hypothesis testing. Hypothesis testing examines the causal relationships among variables in the research model. Hypothesis testing was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS) with a bootstrapping approach. This approach aims to evaluate the direct influence between latent variables and assess the strength and significance of the hypothesized relationships.

Table 4. Hypotheses Testing Results

Hypotheses	Original Sample	Standard Deviation (STDEV)	T Statistics	P Values
H1 = H.image-> Trust	0.284	0.0076	3.740	0.000
H2 = PM Quality -> Trust	0.255	0.088	2.909	0.004
H3 = Trust -> Rev Intention	0.410	0.070	5.900	0.000

Based on data analysis using SmartPLS 3, the original sample value, T statistic, and P value were obtained for each relationship between the variables examined in this study. The results of the hypothesis testing are presented in Table 4, which shows the level of significance and the direction of the relationships among the study variables: Hospital Image (HI), Perceived Medical Quality (PMQ), Trust (T), and Revisit Intention (RI). Explanations of the findings for the three tested relationships are provided below:

Based on the results of the hypothesis test, the hospital image has a positive and significant influence on trust, meaning that the better the hospital image, the higher the level of patient trust. This finding aligns with previous studies that suggest that hospital image plays a role in shaping patient trust in the hospital's credibility and competence [9]. Furthermore, Kwary [13] also found that hospital image has a positive influence on patient behavior, including the tendency to re-elect healthcare services and recommend them to others. In this study, patients from the Riau Islands Province assessed hospitals in Malaysia as having a good reputation for providing healthcare services. These hospitals were perceived as capable of providing professional services tailored to patient needs. This positive perception builds patient trust in the hospital, so the better the perceived image, the higher the level of trust.

Based on the results of the hypothesis test, the relationship between perceived quality of medical services and trust is positive and significant. This means that the higher the quality of medical services patients perceive, the higher their level of trust in the hospital. This finding is in line with the research of Moh Isa et al. [9], which states that the quality of medical services plays an important role in shaping patient trust. This study shows that patients from the Riau Islands province in Malaysia trust medical tourism in Malaysia because of the consistency of Malaysian hospitals in providing professional health services. The results of this study indicate that these patients believe the time sacrificed and costs incurred will be commensurate with the health services they will receive in Malaysian hospitals.

Based on the results of the hypothesis test, the relationship between trust and revisit intention (H3) showed a positive, significant effect, confirming H3. This means that the higher the patient's level of trust, the greater their intention to revisit medical tourism services. This finding aligns with previous research, which states that when healthcare services are perceived as reliable and trustworthy, it can increase satisfaction and encourage patients to return and provide services to others [14,15]. In this study, patients from the Riau Islands Province place strong trust in medical tourism services in Malaysia. This is based on the belief that Malaysian hospitals can provide quality medical services, supported by professional healthcare personnel and the latest medical technology. This trust fosters confidence and security in patients, encouraging them to return. Thus, trust is a crucial factor in shaping patient loyalty and supporting the medical tourism business.

Conclusion

Based on the results of the hypothesis testing, it can be concluded that hospital image and perceived medical quality have a positive and significant influence on trust, and that trust has a positive and significant influence on revisit intention. This indicates that patient trust is a key factor bridging the influence of hospital image and medical service quality on revisit intention. In other words, the better the hospital image and perceived medical quality, the higher the patient trust, which ultimately drives loyalty in the form of revisit intention.

Based on the results of this study, hospitals in Indonesia, particularly in the Riau Islands, need to take several strategic steps. First, improve the quality of medical services by obtaining international accreditation, such as JCI, to ensure globally recognized service standards. Second, strengthen the hospital's image and patient trust by investing in the latest medical technology. Third, increase the number and competence of medical training personnel through ongoing and international collaboration, enabling them to provide professional, high-quality services.

This study has several limitations. First, respondents in this study were drawn only from the Riau Islands Province, so the results cannot be generalized to all regions of Indonesia. Second, based on the R-square value, which remains in the weak-to-moderate category, it indicates that variables outside the model can still influence trust and revisit intentions. Therefore, further research is recommended to add other variables, such as price fairness [8] and relationship marketing [9], to improve the model's ability to explain patient behavior in the context of medical tourism.

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