



Medical Tourism Competitiveness in Malaysia: A Systematic Review

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Abstract

Background: Competition among medical tourism destinations in Southeast Asia requires an integrated understanding of the factors shaping Malaysia's competitiveness. The ten included studies (five quantitative, four qualitative, and one mixed-method) involved predominantly Indonesian and Chinese medical tourists across hospital and destination settings. Given this limited and heterogeneous evidence base, the competitive position attributed to Malaysia is presented as an evidence-informed synthesis rather than a causal claim. Implications: the findings support patient-centered quality management, transparent pricing, and safeguards for equitable local healthcare access.

Objective: This study aimed to synthesize evidence on the roles of service quality, destination image and competitiveness, medical costs, and tourist attitudes in medical tourists' satisfaction, perceived value, and behavioral intentions.

Methods: Systematic review followed PRISMA 2020. Scopus, PubMed, and Taylor & Francis Online were searched for English-language articles published from 2021 to 2025. Of 8,011 initial records, 10 studies met the eligibility criteria and were appraised using Joanna Briggs Institute critical appraisal tools.

Results: Five studies were quantitative, four qualitative, and one used mixed methods. Service quality was the most consistent determinant, particularly healthcare professionalism, communication, transparency, technology, and patient experience. Destination image was shaped by safety, accessibility, reputation, healing environments, digital promotion, and recommendations. Reasonable costs mainly influenced destination choice and perceived value, whereas post-service satisfaction was more strongly driven by quality and trust. Malaysia occupies a competitive position based on balancing quality and affordability.

Conclusion: Patient-centered quality improvement, price transparency, cross-sector service integration, and protection of local healthcare access are required to sustain this position.

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INTRODUCTION

Medical tourism is developing as a form of cross-border mobility to obtain diagnosis, treatment, rehabilitation, or healthcare services with consideration of quality, cost, waiting time, technology, and destination experience. In Southeast Asia, Malaysia has built a medical tourism ecosystem through private hospitals, internationally standardized facilities, transportation access, and coordination between the health and tourism sectors. For Indonesian patients, geographical and cultural proximity lowers travel barriers, while perceptions of professionalism,

service openness, and affordability strengthen Malaysia's appeal (Asa et al., 2024; Md Zain et al., 2022; Ratnasari et al., 2022). Globally, medical tourism has grown into a multibillion-dollar industry, and Southeast Asia has become one of its fastest-expanding regions, where destination choice is shaped by quality, cost, and accessibility (Çapar & Aslan, 2020; Chandran et al., 2020). Specific to Malaysia, industry data reported by the Malaysia Healthcare Travel Council (MHTC) show that healthcare-travel revenue recovered from approximately RM1.3 billion in 2022 to about RM2 billion in 2023, with an estimated 1.08 million healthcare travellers in 2023, underscoring both the sector's momentum and intensifying regional competition Malaysia (2023).

The competitiveness of medical tourism destinations is not determined solely by clinical capability. Patient choice is formed through a combination of country and hospital image, safety, accessibility, physician reputation, communication, technology, cost, as well as information from family and digital media. Cham et al. (2021) and Demir et al. (2025) show that knowledge about the country, safety, accessibility, price fairness, word-of-mouth communication, and user-generated content strengthen Malaysia's destination image. At the hospital level, brand image and trust are related to perceived service quality, satisfaction, and behavioral intentions (Tham et al., 2024, 2025). These findings confirm that destination advantage is the result of interconnected clinical and non-clinical experiences.

Service quality tends to be directly related to satisfaction, but the role of cost is more complex. A price perceived as reasonable can attract patients and increase perceived value, whereas post-treatment evaluation is more influenced by service outcomes, professionalism, communication, and trust (Pang & Chandrashekar, 2023; Shankar et al., 2022). At the same time, the growth of medical tourism needs to maintain the sustainability of the health system. Increasing the orientation of facilities toward international patients has the potential to present economic benefits as well as concerns regarding local community access (Islam et al., 2025; Samsudin et al., 2024).

From the perspective of hospital administration, medical tourism adds complexity to the patient journey. International patients require medical record exchange before arrival, treatment and cost estimates, visa and travel coordination, translation, cross-unit scheduling, companion accommodation, repatriation, and remote follow-up. Good clinical quality can lose its value if administrative processes create uncertainty or communication is inconsistent. Conversely, an integrated process can increase the sense of security, reduce transaction costs, and shape an experience that is then translated into recommendations and repeat visits. Therefore, competitiveness needs to be seen as the capability of the service system, not merely as an attribute of destination promotion.

The literature also shows variation between the decision-making stage and the evaluation stage. At the pre-visit stage, patients rely more on image, information, safety, access, reputation, and cost estimates. During service, attention shifts to communication, process accuracy, clinical outcomes, facilities, and interpersonal treatment. After returning to the country of origin, continuity of care, clarity of instructions, and responsiveness to complications also determine loyalty. Distinguishing these stages is important because a factor can be strong in attracting patients but not become the main determinant of satisfaction. Price fairness is the clearest example: price can open the decision to travel, but the actual experience determines whether the patient judges the trip as valuable.

Previous studies generally examined one specific relationship (for example, destination image on revisit intention, service quality on satisfaction, or brand trust on behavioral intention) with a dominance of cross-sectional surveys at specific locations and groups of countries of origin. Reviews that simultaneously link service quality, cost, destination image/competitiveness, tourist attitudes, and hospital management implications in Malaysia are still limited. This study aims to synthesize empirical evidence from 2021–2025 regarding the factors shaping Malaysia's medical tourism competitiveness and to explain their implications for hospital management and the development of medical tourism in Indonesia. A focused comparison of recent key studies illustrates this gap: Cham et al. (2021) and Demir et al. (2025) established that destination image drives perceived value and revisit intention among Chinese tourists; Shankar et al. (2022)

demonstrated that service quality and trust jointly determine satisfaction; and Md Zain et al. (2023) showed Malaysia's relative advantage in affordability and cultural proximity over Thailand and Singapore. Although these studies converge on the centrality of quality and value, they differ in design and population and each examines only a single relationship (for example, Chang & Ayob (2024), on motivational factors in Sarawak), leaving the combined roles of service quality, cost, destination image, tourist attitudes, and hospital management unintegrated. The novelty of this review lies in synthesizing these fragmented relationships into a single evidence-based framework of Malaysian medical tourism competitiveness, extending beyond earlier single-factor studies and the scoping review of Indonesian medical tourism (Asa et al., 2024). Accordingly, this review addresses the research question: what factors shape the competitiveness of Malaysia's medical tourism, and how do they operate across the pre-visit, service, and post-service stages? Theoretically, it offers an integrated account of destination competitiveness in a healthcare context; practically, it informs hospital management, the development of medical tourism in Malaysia, and lessons transferable to Indonesia.

METHOD

The study employed a systematic review design and was reported with reference to PRISMA 2020 (Page et al., 2022). Eligibility criteria were formulated using the Population, Intervention/Exposure, Comparison, Outcomes, and Study Design (PICOS) framework (Amir-Behghadami, 2024; Amir-Behghadami & Janati, 2020). The population comprised medical tourists who obtained or considered healthcare services in Malaysia, while stakeholder or local community studies directly addressing the effects of the medical tourism ecosystem were retained only as contextual evidence for destination sustainability. The exposures included destination competitiveness or image, service quality, tourist attitudes or expectations, and medical costs. Outcomes comprised destination choice, perceived value, satisfaction, trust, and behavioral intentions. No single comparator was imposed because of the heterogeneity of the included study designs. Accordingly, the review examined the clinical and non-clinical factors shaping Malaysia's medical tourism competitiveness across different stages of the patient journey.

The search was conducted on Scopus, PubMed, and Taylor & Francis Online for publications from January 2021 to November 2025. The search concept combined the terms "medical tourism" or "medical tourist" with "Malaysia", "destination competitiveness" or "destination image", "service quality", "tourist attitude" or "expectation", "medical cost" or "affordability", and "patient satisfaction" or "behavioral intention". Boolean operators AND and OR were adjusted to the characteristics of each source. Records were managed based on title, author, year, and DOI to remove duplicates. Scopus was additionally used as a curated, high-quality bibliographic source (Baas et al., 2020; Shaheen, 2025). The final search was executed on 30 November 2025, and the Boolean strings were adapted to each database's field tags and syntax, as shown in the supplementary search-string listing below.

Studies were included if they: (1) were empirical quantitative, qualitative, or mixed-method research; (2) focused on Malaysian medical tourism or regional comparisons that included Malaysia; (3) discussed at least one of the specified exposures and outcomes; (4) were available in English; and (5) were published in 2021–2025. Opinion articles, editorials, studies without a relationship to competitiveness or medical tourism experience, and research with designs that did not provide empirical findings were excluded. One local community study was retained as indirect evidence for the sustainability dimension, not as direct evidence of tourist satisfaction. The single community-based study Islam et al. (2025) was included only as contextual evidence for the sustainability dimension, because destination competitiveness is a system-level property that also depends on local healthcare capacity; its evidence was explicitly weighted as indirect and was never pooled with, or used as a substitute for, direct tourist-satisfaction findings.

Data were extracted into a structured matrix containing author, year, country or study location, design, sample, variables, analysis method, main results, and limitations. Methodological quality was assessed using the JBI Critical Appraisal Checklist for Analytical Cross-Sectional Studies and the JBI Critical Appraisal Checklist for Qualitative Research. The quantitative and

qualitative components of mixed-method studies were assessed separately. Because the designs, populations, and outcomes were highly heterogeneous, a meta-analysis was not performed. Findings were synthesized narratively and grouped into themes of service quality and trust; destination image and competitiveness; cost and value; attitudes, expectations, and behavioral intentions; and policy sustainability. The review protocol was not registered on PROSPERO.

Table 1

Inclusion and exclusion criteria

Component	Inclusion criteria	Exclusion criteria
Population/context	Medical tourists in Malaysia; regional studies that include Malaysia; one community study as contextual evidence	General tourists or domestic services without a relationship to medical tourism
Exposure	Destination competitiveness/image, service quality, attitudes/expectations, medical costs	Does not assess factors related to competitiveness or experience
Outcome	Destination choice, value, trust, satisfaction, behavioral intention, sustainability	Outcomes not relevant to the medical tourism ecosystem
Design	Empirical quantitative, qualitative, or mixed methods	Editorials, opinions, protocols, or reviews without empirical data
Publication	English language; 2021–2025	Outside the period or text does not meet criteria

RESULTS AND DISCUSSION

The search identified 8,011 records, comprising 726 records from Scopus, 73 from PubMed, and 7,212 from Taylor & Francis Online. After duplicate removal, 5,291 records were screened by title and abstract, of which 5,255 were excluded. Full texts were sought for 36 articles; 13 could not be retrieved, leaving 23 articles for full-text assessment. Of these, 13 were excluded because the population was not appropriate ($n = 7$), the focus or variable relationship was not relevant ($n = 5$), or the study design did not meet the eligibility criteria ($n = 1$). Consequently, 10 studies were included in the final synthesis, consisting of eight studies identified through Scopus and two through PubMed (Figure 1). The inability to retrieve 13 full-text reports represents a potential source of missing evidence and is therefore considered when interpreting the findings. Given the small number and heterogeneity of the included studies, the results are interpreted as convergent evidence rather than definitive or causal proof.

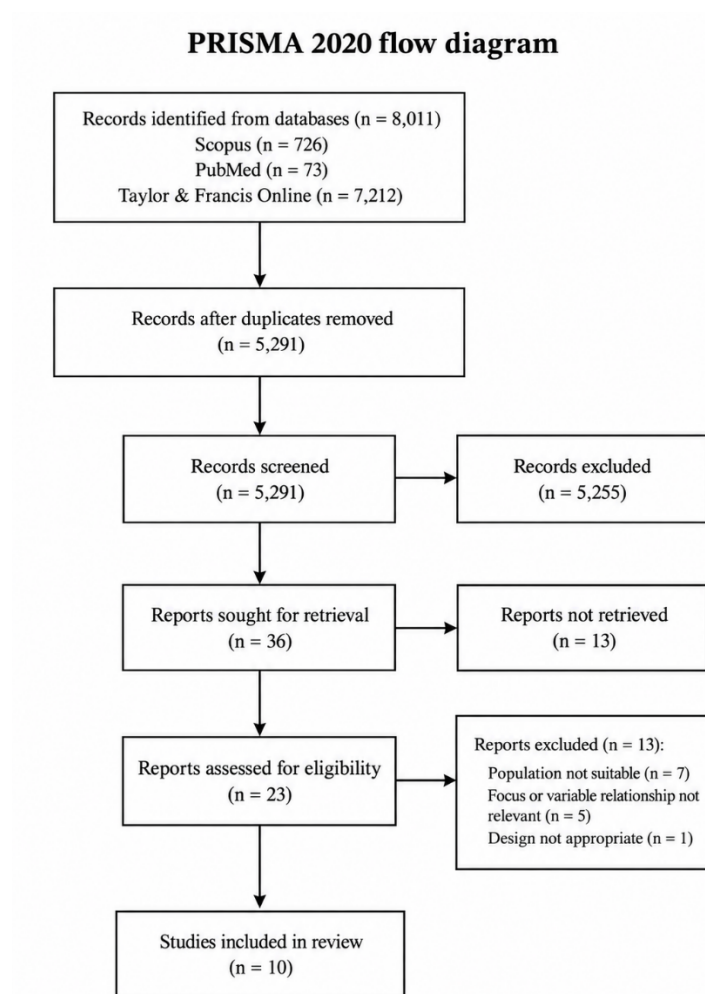


Figure 1. Flow diagram of study selection based on PRISMA 2020

Table 2

Characteristics and main findings of included studies

Study and quality	Sample/context	Focus	Main findings
Cham et al. (2021) and Demir et al. (2025) Quantitative; JBI 87.5%	600 Chinese medical tourists; four countries	Destination image, value, revisit	Safety, access, price fairness, WOM and user-generated media shape image; image increases value and revisit intention.
Ratnasari et al. (2022) Mixed methods; JBI 87.5%/80%	200 respondents and 11 informants; Indonesia—Malaysia	Decision and medical tourism experience	Trust, communication, quality, affordability, technology, holistic service, distance, and tourist attraction are the main factors.
Vashu et al. (2021) and Reyes & Dael (2023) Qualitative; JBI 90%	26 Indonesian medical tourists; Penang	Destination image as healing	Decisions are influenced by information, experience, internal hospital facilities, aesthetics, and healing environment.
Md Zain et al. (2022) Qualitative; JBI 90%	49 Indonesian patients; National Heart Institute	Reasons and preferences for choosing Malaysia	Quality, physician reputation, technology, professionalism, transparency, and

Study and quality	Sample/context	Focus	Main findings
Meng et al. (2023) Quantitative; JBI 87.5%	386 international medical tourists	Expectations and behavioral intention	recommendations are the main pull factors. Health resort facilities and services shape expectations and behavioral intentions; expectations play an important mechanism.
Md Zain et al. (2023) Qualitative; JBI 80%	49 Indonesian patients; Malaysia, Thailand, Singapore	Destination competitiveness comparison	Malaysia excels in affordability and cultural proximity; Thailand in reputation/network; Singapore in technology and premium services.
Tham et al. (2024) Quantitative; JBI 87.5%	344 Indonesian medical tourists; Sarawak	Brand image, trust, satisfaction	Hospital image and trust increase satisfaction and behavioral intentions of medical tourists.
Hoo et al. (2024) Qualitative; JBI 80%	Stakeholders; Klang Valley	Benefits and risks of medical tourism	Industry growth provides opportunities, but rising costs can weaken appeal for the middle-income segment.
Tham et al. (2025) Quantitative; JBI 87.5%	Medical tourists; three private hospitals in Sarawak	Brand trust and satisfaction	Advertising, safety, and WOM increase trust; trust strengthens perceived quality and satisfaction.
Islam et al. (2025) Qualitative; JBI 80%	361 local Malaysian residents	Economic benefits, access, quality of life	Economic benefits are viewed positively, but there are concerns regarding local service access; evidence is contextual, not tourist satisfaction.

The JBI assessment showed that all quantitative components met 7 of 8 criteria (87.5%). The most recurring weakness was the identification and control of confounding factors that were not adequately explained. The five qualitative components scored 80%–90%. Unclear aspects were mainly related to researcher reflexivity, researcher influence on interpretation, and reporting of ethical considerations. Thus, the evidence is generally of good quality, but causality cannot be established due to the dominance of cross-sectional designs and heterogeneity of contexts. Synthesizing across studies rather than summarizing each individually, three patterns emerge: service quality and trust recur as determinants in both quantitative and qualitative designs Tham et al. (2024, 2025) Cham et al. (2021) and Md Zain et al. (2022) ; affordability is consistently a selection-stage rather than a satisfaction-stage factor Ratnasari et al. (2022) and Hoo et al. (2024) destination image operates most strongly before the visit (Meng et al., 2023; Vashu et al., 2021). Because the designs are predominantly cross-sectional, these convergences are reported as associations rather than causal effects.

The synthesis produced four groups of direct and supporting determinants. Service quality and trust were the most consistent themes. Destination image/competitiveness shapes the pre-visit stage and perceived value. Cost functions as a pull factor as well as a risk if its increase is not matched by quality. Attitudes and expectations connect information before travel with evaluation after service.

Table 3
Synthesis of themes of Malaysian medical tourism competitiveness

Theme	Mechanism	Outcome/implication
Service quality and trust	Professionalism, communication, transparency, safety, technology, facilities, hospital brand image and trust	Most consistently improves perceived quality, satisfaction, and revisit intention
Destination image and competitiveness	Safety, accessibility, reputation, cultural proximity, healing environment, WOM, digital media	Shapes choice, perceived value, and behavioral intention before and after the visit
Cost and value	Price fairness, transparency, affordability, cost-quality comparison	Drives destination choice; cost increases can weaken the middle segment
Attitudes and expectations	Previous experience, recommendations, information, comfort, expectations of facilities and services	Mediates evaluation of experience and behavioral intention
Sustainability	Government-hospital-tourism coordination; protection of local access	Economic growth needs to be balanced with equitable healthcare services

On the theme of service quality, studies showed consistency between survey and interview evidence. The professionalism of physicians and health workers, clear communication, information transparency, technology, safety, and facilities were the reasons patients chose Malaysia and assessed services positively. Md Zain et al. (2022) found that physician reputation, professionalism, and technology were pull factors for Indonesian patients. Ratnasari et al. (2022) identified trust, communication interaction, excellent service, affordability, and technology as part of nine decision factors. In quantitative studies, perceived quality was related to satisfaction and behavioral intention through hospital image or trust (Tham et al., 2024, 2025). Cross-design consistency strengthens the conclusion that service quality is the core of competitiveness, although the magnitude of influence cannot be directly compared.

The quality referred to is not limited to the success of medical procedures. Tourists assess the entire process, including responsiveness before departure, friendliness, language ability, coordination between services, openness regarding diagnosis and costs, facility comfort, and follow-up. These components build trust because patients are outside the health system they normally use. When information and services are consistent, perceived risk decreases and patients are more ready to accept clinical recommendations. Conversely, unclear administrative or cost processes have the potential to damage perception even when clinical capability is high.

On the theme of destination image, country factors and social factors are interrelated. Cham et al. (2021) and Demir et al. (2025) found the influence of knowledge about the country, safety, accessibility, price fairness, word-of-mouth communication, and user-generated content on medical tourism image. Image subsequently increases perceived value and revisit intention. Vashu et al. (2021) and Reyes & Dael (2023) expanded these findings by showing that Penang is perceived as a healing destination through hospital facilities, aesthetics, and environmental

atmosphere. These findings indicate that image has a cognitive dimension (such as information, price, and access) as well as an affective dimension in the form of comfort and peace of mind.

Regional comparison places Malaysia's advantage in relative terms. From the perspective of Indonesian tourists, Malaysia stands out in affordability, cultural proximity, language, and ease of access. Thailand is perceived to have a global reputation and a more mature industry network, while Singapore stands out in technology and premium services (Md Zain et al., 2023). This relative position explains why Malaysia's strategy is more appropriate when emphasizing balanced value. Efforts to raise a premium image without maintaining affordability risk blurring the main differentiator and driving middle-income patients to seek other alternatives.

Cost appears as a pull factor at the selection stage and a component shaping value. Price fairness is related to destination image, while affordability is mentioned directly by patients and service providers (Cham et al., 2021; Ratnasari et al., 2022). However, not all studies place cost as a direct determinant of satisfaction. Hoo et al. (2024) show the risk side in the form of cost increases that can reduce Malaysia's appeal. Thus, the synthesis supports an indirect mechanism: cost influences access and value expectations, then patients compare this sacrifice with quality, outcomes, and experience. Transparency becomes important because a low but uncertain cost can reduce trust.

Attitudes, expectations, and behavioral intentions form a chain of evaluation. Information, previous experience, recommendations, and perceptions of safety build initial attitudes. Facilities and services then confirm or reject patient expectations (Meng et al., 2023). If the experience meets or exceeds expectations, value, satisfaction, and revisit intention increase. This evidence supports the need for managing realistic expectations. Excessive marketing messages can attract patients in the short term but widen the gap between promise and experience, while accurate information strengthens trust and loyalty.

The sustainability theme comes mainly from contextual evidence. Islam et al. (2025) show that local communities recognize economic benefits but also express concerns regarding service access. This study was not used to conclude tourist satisfaction. Its findings add the dimension that competitiveness is not only the number of patients or revenue but the ability to maintain social legitimacy and health system capacity. Destination advantage can weaken if personnel, beds, or service time shift disproportionately from local needs to international patients.

Discussion

This review shows that Malaysia's medical tourism competitiveness mainly relies on the ability to convert technical and functional quality into a trustworthy patient experience. Professionalism of health workers, communication, transparency, technology, and process efficiency appear repeatedly in quantitative and qualitative studies. This pattern is consistent with the findings of Shankar et al. (2022) that quality and trust are important pathways to medical tourist satisfaction. The gap between expectations and service perceptions also influences patient evaluation, so hospital managers cannot simply improve facilities; they need to align marketing promises, clinical communication, and actual (A'aqoulah et al., 2022). Sources drawn from adjacent contexts—such as general healthcare service quality A'aqoulah et al. (2022) and Shankar et al. (2022) and post-pandemic health policy Samsudin et al. (2024) are used here only to interpret mechanisms, not as direct evidence of Malaysian medical-tourist satisfaction, which rests on the ten included studies.

Hospital brand trust acts as a bridge between marketing and service experience. Studies in Sarawak show that advertising, safety, and recommendations strengthen trust, which then increases perceived quality and satisfaction (Tham et al., 2024, 2025). Managerially, hospitals need to manage evidence-based reputation: information on physician competence and accreditation must be easily verifiable; cost estimates and treatment pathways need to be transparent; and complaints must be handled consistently. Patient recommendations and user-generated content are more credible than official communication alone, as seen in the non-significance of state-generated social media in the study by Cham et al. (2021) and Demir et al. (2025).

Destination image extends the patient experience beyond hospital boundaries. Safety, flight access, language ease, cultural proximity, hotels or accommodation, and healing environment shape value perception. Penang, for example, is assessed as a healing destination because of internal facilities and environmental aesthetics, not only medical competence (Reyes & Dael, 2023; Vashu et al., 2021). Comparative findings place Malaysia in a "middle value" position: more affordable and culturally close for Indonesian patients compared to Singapore's premium services, while Thailand is stronger in reputation and network scale (Md Zain et al., 2023). This position allows differentiation based on a balance of quality, cost, and comfort, not mere price competition.

Cost has a dual contribution. Price fairness shapes image and destination choice, but post-service satisfaction is more consistently related to quality, trust, and experience. This finding is in line with Pang & Chandrashekar (2023), who place cost together with facilities and quality, as well as Ratnasari et al. (2022), who show that affordability works alongside communication, technology, and excellent service. Non-transparent cost increases can erode Malaysia's advantage for middle-income patients (Hoo et al., 2024). Therefore, pricing strategy needs to be value-based: packages must explain clinical and non-clinical components, possible additional costs, and follow-up mechanisms after patients return to their country of origin.

Tourist attitudes and expectations are formed before travel and updated throughout the service episode. Information from family, former patients, referring physicians, and digital media influences the sense of security, trust, and readiness to choose a hospital. Meng et al. (2023) show that facilities and services shape expectations and behavioral intentions; Cham et al. (2021) and Demir et al. (2025) show that image increases value and revisit intention. Hospitals can manage this process through multilingual patient navigators, pre-visit consultations, realistic procedure information, travel coordination, and post-treatment monitoring. This approach reduces uncertainty and prevents expectation-service gaps. Consistent with this, Chang & Ayob (2024) report that motivational factors drive medical tourists' intentions in Sarawak, with consumption value acting as a moderator.

Industry advantage also depends on governance. Post-pandemic policy studies emphasize the need for coordination between government, hospitals, tourism, transportation, and facilitators (Samsudin et al., 2024). Evidence from local communities shows economic benefits but also concerns regarding domestic service access (Islam et al., 2025). Although this evidence does not directly measure tourist satisfaction, these findings are important because long-term competitiveness can be disrupted if the growth of international patients widens inequality. Governments and hospitals need to monitor waiting times, personnel allocation, essential service capacity, and cross-subsidy mechanisms so that expansion does not sacrifice local access.

For Indonesia, this synthesis is relevant as a source of learning, not a model to be copied directly. Indonesia has a strong base of hospitals, health workers, and tourist destinations, but requires centers of excellence, integrated international patient pathways, cost transparency, cross-language communication, and referral certainty. A multi-level approach linking national policy, regional governance, hospitals, the travel industry, and patient experience has been proposed to accelerate the development of Indonesia's medical tourism (Supriadi et al., 2024). A realistic initial priority is to select flagship specialist services, standardize the patient journey, measure patient outcomes and experiences, and build marketing based on auditable quality.

The implication for hospital performance measurement is the need for indicators that go beyond international patient volume and revenue. Operational indicators can include pre-visit response time, waiting time, cost estimate accuracy, schedule delays, completeness of clinical information, safety incidents, complaint resolution, follow-up continuity, patient experience, and recommendation proportion. These indicators should be separated by type of service and country of origin so that managers can find failure points in the patient journey. Cost data also needs to be linked to outcomes and experience so that the concept of value for money can be assessed, not only promoted.

Development policy also needs to distinguish short-term growth from long-term resilience. Promotional incentives or price packages can increase demand rapidly, but clinical capacity, information systems, and follow-up must increase accordingly. Without capacity

planning, growth can increase the burden on health workers and waiting times. Local impact evaluation needs to be conducted periodically and published to maintain public trust. Medical tourism revenue can be directed toward training personnel, technology, and expanding services that also benefit domestic patients.

Digital transformation can strengthen all these pathways if implemented as service infrastructure, not just a promotional channel. An international patient portal can facilitate uploading clinical documents, initial consultations, treatment consent, cost estimates, scheduling, payments, translation, and follow-up. Integration with hospital systems reduces information repetition and the risk of miscommunication. However, interoperability, data security, patient consent, and cross-country division of responsibilities need to be regulated. Managers must also provide human communication options for patients who are less familiar with technology or need complex clinical explanations.

Collaboration with physicians and hospitals in the patient's country of origin is an opportunity that has not been widely measured in the included studies. Two-way referrals and exchange of clinical summaries can improve patient selection, pre-travel readiness, and continuity of care after returning home. For Malaysian hospitals, such networks can increase trust without relying entirely on commercial agents. For Indonesia, formal cooperation can reduce fragmentation and the risk of patients returning without a follow-up plan. Future research needs to assess whether network models improve clinical outcomes, reduce total travel costs, and maintain satisfaction compared to self-arranged travel.

Patient segmentation also needs to be part of the strategy. The needs of patients for health check-ups, cardiology, fertility, orthopedics, oncology, and elective procedures are not the same in terms of urgency, length of stay, companions, risk, and follow-up. Uniform service packages can produce irrelevant experiences and inefficient use of resources. Hospitals should design clinical and non-clinical pathways according to type of service, complexity, and country of origin, then test the experience of each segment. Needs-based segmentation is more appropriate than only using ability to pay because it maintains patient orientation and allows for more accurate capacity planning.

The strength of this review is the integration of quantitative, qualitative, and mixed-method evidence as well as critical appraisal with JBI instruments. However, there are several limitations. The search only covered three sources and English-language articles; Taylor & Francis Online is a publisher platform so its coverage differs from bibliographic databases. Studies were dominated by cross-sectional designs, Indonesian and Chinese populations, and specific locations, so generalization is limited and causal relationships cannot be ascertained. Heterogeneity of outcomes did not allow for meta-analysis. One local community study provides indirect evidence and should not be interpreted as tourist satisfaction. The protocol was not registered, and the search date was only documented up to November 2025. Future research needs to expand databases, register protocols, use longitudinal designs, compare costs and clinical outcomes between countries, and involve tourists from more diverse regions.

CONCLUSION

This systematic review shows that Malaysia's medical tourism competitiveness is primarily shaped by service quality and trust, supported by destination image, price fairness, accessibility, cultural proximity, and tourists' attitudes and expectations throughout the patient journey. Professionalism, communication, transparency, technology, safety, and patient experience consistently emerged as important components of perceived quality, while destination image influenced destination choice and perceived value. Cost functioned mainly as a consideration in destination selection and value assessment, whereas post-service satisfaction was more consistently associated with quality, trust, and the overall service experience. Malaysia's competitive position therefore rests on maintaining a balance between quality, affordability, accessibility, and a trustworthy patient experience.

Sustaining this competitive position requires integrated international-patient pathways, transparent and value-oriented pricing, reliable communication, evidence-based reputation management, and coordination between hospitals and other actors in the medical tourism

ecosystem. At the same time, growth in international healthcare travel should be balanced with the protection of local healthcare access. The findings should be interpreted within the limitations of the available evidence, particularly the limited databases, predominance of cross-sectional studies, heterogeneous outcomes, and concentration of studies among particular populations and locations. Future research should therefore broaden database coverage, use registered protocols and longitudinal designs, include more diverse tourist populations, and strengthen comparative evidence on costs, clinical outcomes, and healthcare accessibility.

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AUTHOR CONTRIBUTION STATEMENT

Calvin Martin: conceptualization, methodology, study selection, data extraction, formal analysis, writing – original draft. Sumeidi Kadarisman: conceptualization, methodology, validation, supervision, writing – review and editing. Rukhiyat Syahidin: study selection, data extraction, risk of bias assessment, writing – review and editing. All authors read and approved the final manuscript.

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