



## Rapid Growth of Medical Tourism in Malaysia: Key Factors Driving Regional Trust and Opportunities for Indonesia

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### ABSTRACT

**Introduction :** Malaysia has achieved remarkable success in the health sector, which is prominently reflected in the increasing Indonesian patients medical tourists choosing the country for their healthcare. This growing trend extends beyond Indonesian patients, as individuals from various Southeast Asian are also opting for medical treatments in Malaysia. Such a phenomenon highlights the exceptional quality of Malaysia's healthcare system, underscoring the high level of trust and confidence that international patients place in its services. This influx of medical tourists is indicative of Malaysia's rising prominence as a hub for medical tourism in the region. The primary objective of this article is to delve into the factors driving the rapid expansion of medical tourism in Malaysia. By analyzing these factors, the article seeks to offer valuable insights that could inform and guide efforts to elevate the standards of health services and understanding the dynamics behind Malaysia's success could provide a strategic framework for enhancing Indonesia's healthcare sector, and increased attraction for medical tourists.

**Research Method:** This study is a conceptual analysis that synthesizes existing literature relevant to the factors contributing to the success of medical tourism in Malaysia. The data was meticulously collected from reputable academic databases, focusing on research published over this decade.

**Findings/ Results:** Factors such as the quality of health services, brand image of hospitals, competitive costs, government involvement, and ability to adapt to culture are factors that increase the success of medical tourism.

**Keywords:** Service Culture, Culture Similarity, Cost Competitiveness, Medical Tourism

## INTRODUCTION

The medical tourism industry has become one of the sectors that is experiencing rapid growth in various parts of the world, including in Malaysia. The latest data shows that Malaysia recorded a 15% increase in the number of medical tourist visits in 2023, an increase from previous years (Aliansyah & Hermawan, 2021). This phenomenon is interesting to study further, considering that Malaysia has great potential to become a leading healthcare center in the Southeast Asian region. This study aims to identify the key factors driving the growth of the medical tourism industry in Malaysia as well as analyze how regional opportunities for Indonesia to be able to develop similar sectors that can compete with Malaysia. Through a deep understanding of the dynamics of this industry, it is hoped that it can provide valuable insights for stakeholders in Indonesia in formulating a competitive medical tourism development strategy.

A comprehensive literature review will be conducted to explore this topic from various perspectives. Several recent studies related to trends and factors influencing the growth of medical tourism in Malaysia will be studied in depth. One of them is research conducted by (Tan & Kim, 2021) and (Azmat et al.2021) which identified key factors such as healthcare quality, price competitiveness, and ease of access as the main drivers of the industry's growth in Malaysia (Chandran et al., 2017). Meanwhile, (Mustafa, 2020) and (Ahmad, 2020) highlighting infrastructure development, government incentives, and effective marketing as other important factors (Perdana et al., 2023). In addition, literature on opportunities and challenges for Indonesia to develop a similar medical tourism sector will also be discussed. Several studies show that Indonesia has great potential to become an alternative healthcare center in the region, with comparative advantages such as more affordable treatment costs, the availability of skilled medical personnel, and natural beauty that can be an additional attraction for tourists (Sayogyo, 2019) ,5]. However, challenges such as limited infrastructure, inadequate regulations, and fierce competition with neighboring countries need to be carefully considered (Ministry of Finance of the Republic of Indonesia, 2023),

Through the synthesis and critical analysis of the latest reference sources, this research is expected to make a significant contribution to the development of medical tourism in the region. An in-depth study of the key drivers of industrial growth in Malaysia can be a valuable

lesson for Indonesia in designing strategies that are appropriate to the local context. In addition, identifying the specific opportunities and challenges facing Indonesia can help stakeholders in the country to formulate appropriate policies and initiatives to improve the competitiveness of the medical tourism sector. Overall, this study will fill in the gaps in the existing literature by presenting a comprehensive analysis of the dynamics of the medical tourism industry in Malaysia and the potential for the development of similar sectors in Indonesia. The findings are expected to serve as a reference for the government, policymakers, industry associations, and other stakeholders in an effort to improve Indonesia's competitive position in the regional medical tourism market.

## **RESEARCH METHODOLOGY**

This study uses the Systematic Literature Review (SLR) method, which aims to identify, assess, and systematically synthesize relevant literature related to the growth of medical tourism in Malaysia and regional opportunities for Indonesia. The SLR process begins with the determination of a clear and specific research question, followed by the development of a comprehensive search protocol to ensure the inclusion of relevant studies and their irrelevant exclusions. Literature searches were conducted in various academic databases such as Google Scholar, Scopus, and PubMed, using a combination of predefined keywords such as "medical tourism Malaysia," "regional opportunities Indonesia," and "key factors driving trust." After the search process, the studies found will be selected through a screening stage based on the inclusion and exclusion criteria that have been set. The inclusion criteria include studies published in the last 10 years, relevant to the topic of medical tourism, as well as having a focus on the driving factors and challenges in Malaysia and Indonesia. Studies that do not meet these criteria will be excluded from the analysis.

After screening, each passing study will be analyzed in depth to identify and categorize the key factors influencing the growth of the medical tourism industry in Malaysia as well as the opportunities and challenges for Indonesia. The synthesis process is carried out by comparing and contrasting findings from various studies to identify common patterns and differences. The results of this synthesis will be presented in the form of a structured narrative,

which will provide a comprehensive overview of the dynamics of the medical tourism industry in both countries. Through this SLR approach, this research aims to make a valuable contribution to the existing literature by presenting an in-depth, specific, and comprehensive analysis related to the topic studied.

## RESULTS AND DISCUSSION

### 1. Results Introduction

#### A. Journal Article Screening

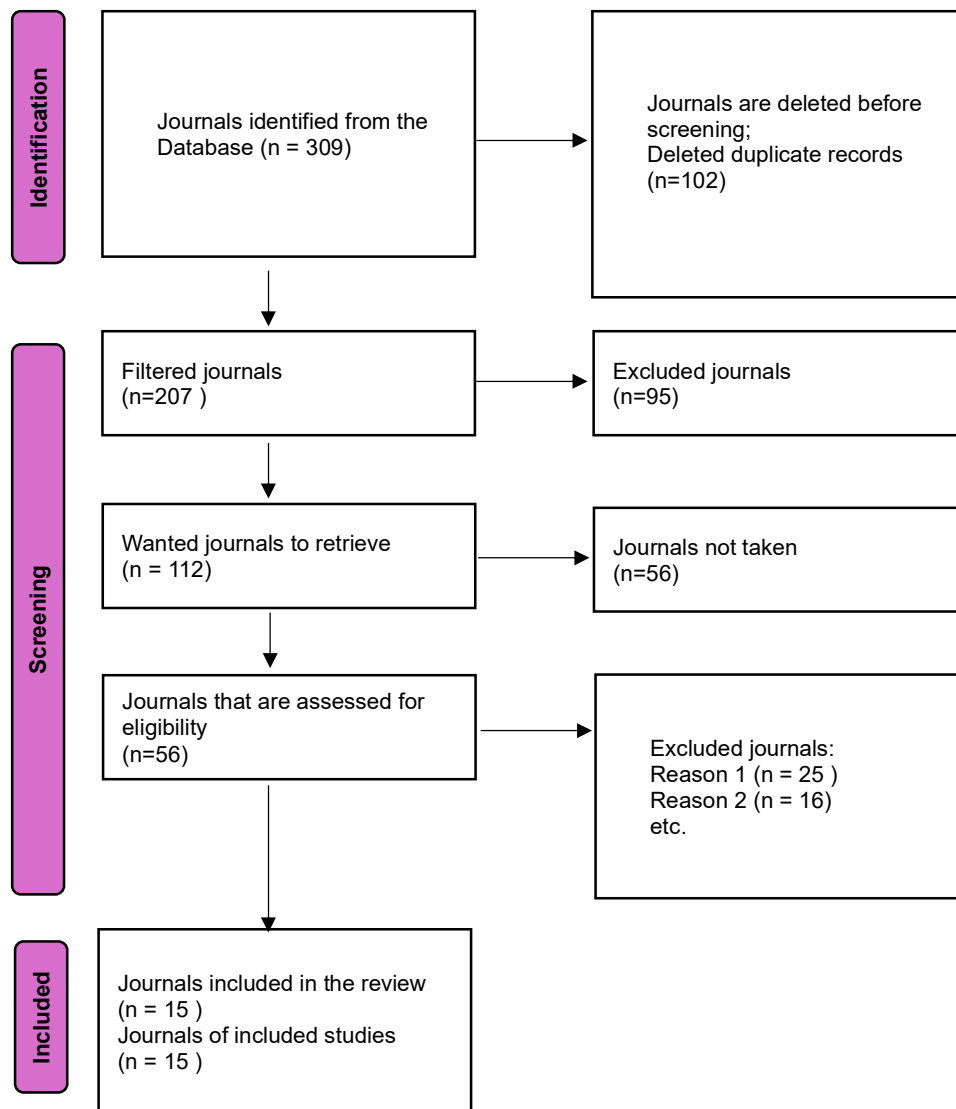


Figure 01. Flowchart Prisma

1. Identification: At this stage, an initial search is conducted to identify relevant journal articles from various databases. In your study, as many as 309 journals were successfully identified. However, not all of these journals are immediately processed further. At this stage, a duplicate removal process is also carried out, namely journals that appear more than once in searches from various sources. A total of 102 journal articles were deleted because they were considered duplicates, leaving 207 journals ready for further screening.
2. Screening: After the identification stage, the remaining journals undergo a screening process. In this process, the abstract and journal title are examined to ensure their relevance to the research topic. Of the 207 journals screened, 95 of them were excluded because they did not meet the initial criteria that had been set. At this stage, articles that do not fit the focus of the study or other inclusion criteria are removed.
3. Eligibility: After passing the initial screening stage, 112 journals were examined in more depth. However, of these, 56 journals could not be extracted or excluded for various reasons, for example, because the full text was not available, or because the journals did not meet the expected methodological or quality requirements.
4. Included: In the final stage, the remaining journals are evaluated for eligibility for inclusion in the final review of the study. A total of 56 journals have been evaluated for feasibility, but only a total of 15 journals were finally included in the study because they met all the criteria that had been set.

This PRISMA flowchart reflects the systematic flow of the literature selection process in a systematic review, starting from the identification to the final selection of journals that are suitable for inclusion in the research analysis.

B. Brief summary results of the main findings

**Table 1. Synthesis**

No.	Author & Year	Research Focus	Method	Key findings	Implications for Malaysia Medical Tourism	Opportunities for Indonesia
1	(Chan et al., 2022)	Characterization of Acanthamoeba sp.	Isolation and analysis	Rare genotype found	Demonstrating biodiversity	Exploring the potential of biodiversity for nature-based medical tourism
2	(Massingham et al., 2023)	Relationship of individual well-being with conservation support	Survey	Positive welfare related to conservation support	The importance of paying attention to the welfare of the community	Considering aspects of community welfare in the development of medical tourism
3	(Li Sa et al., 2020)	Knowledge creation process, customer onboarding	Survey	Customer onboarding and knowledge creation have a positive effect	The importance of customer onboarding and knowledge management	Improving the quality of hospitality services to support medical tourism
4	(Shah et al., 2020)	Malaysia's government in the face of COVID-19	Policy analysis	Implementation of MCO and pandemic handling initiatives	Malaysia's ability to handle health crises is a plus	Learning from Malaysia's handling of the health crisis
5	(Thananusak et al., 2022)	Response of online medical tourism facilitator platform	Case studies	Business model adaptation and utilization of digital technology	The importance of innovation and digitalization	Increasing the adoption of digital technology in medical tourism services

6	(Fang et al., 2024)	Drone delivery acceptance rate	Survey	High acceptance rate	Potential use of drone technology in medical tourism logistics	Exploring the use of drone technology to improve efficiency
7	(Ma'ady et al., 2024)	Malaysia's sentiment towards the government's response	Twitter data analysis	Identify account patterns as a pillar of disaster management	The importance of reputation management and crisis communication	Improve reputation management and crisis communication capabilities
8	(Massingham et al., 2023)	Relationship of individual well-being with conservation support	Survey	Positive welfare related to conservation support	The importance of paying attention to the welfare of the community	Considering aspects of community welfare in the development of medical tourism
9	(Meng et al., 2023)	Expectations and behavioral intentions of international medical travellers	Survey	Health resort attractions have a positive effect	The importance of developing health resort attractions	Developing a wellness resort concept to increase attractiveness
10	(Apenteng et al., 2024)	Modelling the role of tourism in the spread of HIV	Analysis of epidemiological data	Duration of visits has an impact on HIV incidence	The importance of health screening and education	Developing strict health protocols
11	(Dousin et al., 2024)	Geopark development and community welfare	Survey	Economic and socio-cultural benefits of geoparks	Potential for geopark development as a nature-based medical tourism destination	Integrating the concept of geoparks in destination development
12	(Sharin et al., 2022)	Visualization and prediction of the spread of COVID-19	Network analysis	Identify deployment patterns	The importance of disease monitoring and prediction systems	Developing disease monitoring and prediction systems
13	(Damayanti et al., 2021)	Communication of Malaysia medical tourism	Survey	Credibility of healthcare services is a major factor	The importance of an effective communication strategy	Improve communication strategies to promote the potential of medical tourism

14	(Yusof & Rosnan, 2020)	Medical tourism services in Malaysia and their impact on local patients	In-depth interviews	Medical tourists are only a small fraction of the total patients	The importance of a balance between serving medical tourists and local patients	Designing policies that ensure service balance
15	(Santoso et al., 2020)	Factors that affect tourists to do medical tourism	Confirmatory factor analysis	Identify the 9 main factors	The importance of understanding the factors that influence medical traveler decisions	Using an understanding of these factors to improve competitiveness



### 1. Medical tourists' perception of service quality in Malaysia

Service quality is a crucial factor in Malaysia's medical tourism industry, significantly influencing the perception and satisfaction of medical tourists. Based on the synthesis of various studies that have been analyzed, it is revealed that medical tourists have high expectations for service standards in Malaysia. Factors such as the expertise of medical personnel, modern technology, quality facilities, and comprehensive post-operative care are the main determinants in shaping a positive perception. Study conducted by (Damayanti et al., 2021) underlining the importance of the credibility of healthcare services as a major factor influencing medical traveller decisions. This shows that Malaysia's reputation for providing high-quality medical services has become a major attraction for international tourists. Furthermore, research by (Meng et al., 2023) revealed that health resort attractions have a positive influence on the expectations and behavioral intentions of international medical tourists. This signifies that medical tourists are not only looking for quality medical care, but also a holistic experience that includes aspects of well-being and relaxation.

These findings are in line with the global trend in medical tourism that combines medical care with wellness elements. (Yusof & Rosnan, 2020) in his study highlights the importance of a balance between serving medical tourists and local patients, which shows that the perception of service quality is also influenced by the ability of Malaysia's health system to effectively manage demand from these two groups. These studies collectively indicate that medical tourists' perception of the quality of services in Malaysia is very positive, but also demands continuous efforts to maintain and improve standards. Factors such as effective communication, transparency in procedures and costs, and personal attention to patient needs also contribute significantly to the formation of this perception. Malaysia's success in building this reputation is inseparable from supportive government policies and continued investment in healthcare infrastructure, which has positioned the country as a leading medical tourism destination in the Southeast Asian region.

### 2. The role of digital technology in improving the tourist experience

Digital technology has been a key catalyst in the transformation of Malaysia's medical tourism industry, significantly improving the tourist experience and operational

efficiency. Analysis of various studies shows that the adoption of digital technology has not only increased Malaysia's competitiveness in the global medical tourism market, but also reshaped travelers' expectations and interactions with healthcare providers. (Thananusak et al., 2022) In his study revealed how online medical tourism facilitator platforms have adapted to new business models and leveraged digital technology to improve their services. This reflects a significant shift in the way medical travelers seek information, compare options, and make decisions about their medical treatments. Technological innovations such as telemedicine, artificial intelligence (AI) in diagnosis, and mobile applications for patient care management have expanded the reach and accessibility of Malaysia's healthcare services. Study by (Sharin et al., 2022) about the visualization and prediction of the spread of COVID-19 illustrates the potential of technology-based disease monitoring and prediction systems, which can be applied to improve the safety and comfort of medical tourists. Further, the use of blockchain technology for medical data security and smart contracts for more transparent transactions is beginning to be explored, offering a higher level of trust and security for international medical tourists.

His research on the acceptance rate of drone delivery shows the potential use of advanced technology in medical tourism logistics, which can improve the efficiency and speed of service. This kind of technology integration not only enhances the tourist experience but also positions Malaysia as an innovative and future-oriented medical tourism destination. Additionally, the use of big data and predictive analytics allows healthcare providers to personalize the medical traveler experience, from treatment recommendations to service customization based on individual preferences. However, it is important to note that while digital technology offers many benefits, its implementation must be balanced with ethical considerations and patient privacy protection. These studies collectively emphasize the importance of a holistic approach to adopting digital technologies, which not only focus on improving operational efficiency but also on improving the quality of care and patient satisfaction. By continuously innovating and adopting the latest technology, Malaysia can maintain its position as a leader in the global medical tourism industry, offering international medical tourists a not only medical but also technological and personalized experience.

### 3. Opportunities and Challenges for Indonesia

#### a. Potential and Advantages

Indonesia has various potentials that can be utilized to develop the medical tourism sector. One of Indonesia's main advantages is the relatively lower cost of medical care compared to neighboring countries such as Singapore and Thailand. This provides a competitive advantage for Indonesia, especially to attract medical tourists from countries with high health costs. In addition, the availability of skilled and qualified medical personnel in Indonesia is also one of the significant advantages. Many medical personnel in Indonesia have received training abroad, so they have abilities equivalent to international standards. Plus, Indonesia's natural beauty and cultural richness can also be an additional attraction for medical tourists. The combination of quality medical care with a unique travel experience can make Indonesia an attractive destination for medical tourists seeking recovery in a beautiful and relaxing environment.

#### b. Infrastructure Challenges

Despite its great potential, Indonesia faces significant infrastructure challenges in developing the medical tourism sector. One of the main challenges is the lack of adequate health infrastructure, especially outside of major cities such as Jakarta and Bali. Hospitals and healthcare facilities in these areas often lack sophisticated medical equipment and facilities that meet international standards. This limits Indonesia's ability to compete with neighboring countries that are already more advanced in the medical tourism sector. In addition, transportation accessibility is also a challenge. Although Indonesia has many international airports, connectivity between regions is still limited. Highways and other transportation facilities in some areas are also inadequate, making it difficult to access medical tourists who want to travel to Indonesia. This challenge is exacerbated by a lack of coordination between the central and local governments, which often hampers the implementation of policies that can support the growth of medical tourism.

#### c. Competitiveness Improvement Strategy

To overcome these challenges and harness its potential, Indonesia needs to develop a comprehensive competitiveness improvement strategy. First, there needs to be increased investment in health infrastructure, especially in areas that have the

potential to become medical tourism destinations. The government can provide incentives to investors to build hospitals and clinics with international standards, as well as improve the quality of available medical equipment. Second, strengthening regulations and policies that support the growth of the medical tourism sector is also very important. The government needs to improve regulations related to foreign doctors' practice licenses, as well as speed up the licensing process for the construction of new health facilities. In addition, cooperation between the government and the private sector in promoting Indonesia's medical tourism to the international market must be improved. An effective marketing strategy and strong branding will help increase Indonesia's visibility as a competitive medical tourism destination. Third, training and capacity building of medical personnel must be a priority. Continuous training programs and international certifications can help improve the quality of health services in Indonesia, so as to meet the expectations of medical tourists from abroad. By leveraging the existing potential and overcoming the challenges faced, Indonesia has a great opportunity to become a major player in the medical tourism industry in the Southeast Asian region. Through the right investments, regulatory strengthening, and effective marketing strategies, Indonesia can increase its competitiveness and attract more medical tourists, thereby contributing to the national economic growth.

#### 4. Comparison of Malaysia and Indonesia

##### a. Similarities and Differences

- Similarities

Malaysia and Indonesia have a number of similarities in the context of medical tourism development. Both are countries in Southeast Asia that offer medical services at a relatively lower cost compared to Western countries. This is a major attraction for medical tourists from countries with high health costs. In addition, both countries have rich natural resources and natural beauty that can be utilized as part of medical tourism packages, where patients can undergo treatment while enjoying the natural beauty and local culture.

- Difference

However, there are significant differences between Malaysia and Indonesia in terms of health infrastructure development and government support. Malaysia has been more advanced in developing quality medical infrastructure, with many hospitals having obtained international accreditation. The Malaysia government is also more proactive in providing incentives and regulations that support the growth of medical tourism, including easy access to visas and aggressive promotions in the international market. On the other hand, Indonesia still faces major challenges in terms of health infrastructure, especially outside of major cities. Although there are several hospitals that have international standards, many health facilities in Indonesia are still inadequate to attract international medical tourists. In addition, the support of the Indonesian government in the form of specific policies and regulations for medical tourism is not as strong as in Malaysia, so Indonesia lags behind in terms of global competitiveness in this sector.

b. Learning from Malaysia

From Malaysia's experience, Indonesia can take some important lessons to improve its medical tourism sector.

- Investing in Healthcare Infrastructure

One of the key lessons is the importance of investing in healthcare infrastructure. Malaysia has successfully built hospitals and clinics equipped with the latest medical technology and international standards. To compete, Indonesia needs to encourage greater investment in the sector, including through public-private partnerships, to improve the quality of health services across the country, not just in big cities.

- The Government's Proactive Role

Malaysia has shown that strong and sustained government support is crucial to developing the medical tourism sector. The Government of Malaysia provides incentives, simplifies regulation, and promotes the sector internationally.

Indonesia can learn from this approach by strengthening its regulatory framework, providing tax incentives, and facilitating cooperation between the health and tourism sectors.

- International Marketing and Branding

Malaysia has also succeeded in building a strong international image as a medical tourism destination. Consistent branding efforts and aggressive marketing strategies in the global market have increased Malaysia's visibility in the eyes of medical tourists. Indonesia needs to develop a similar marketing strategy, focusing on local uniqueness and the quality of services offered, as well as strengthening Indonesia's branding as a competitive medical tourism destination.

- Focus on Service Quality

The quality of healthcare is key to Malaysia's success in the sector. By improving the quality of services through medical personnel training, international accreditation, and improved operational standards, Indonesia can attract more international patients who are looking for quality medical services at competitive prices. Through this comparison, it can be seen that although Indonesia has great potential, there are still many challenges that must be overcome to be able to compete with Malaysia in the medical tourism sector. By learning from Malaysia's success, Indonesia can strengthen its competitiveness and develop a medical tourism sector that is able to attract the attention of the international market.

## **Discussion**

The medical tourism industry in Malaysia has experienced significant growth in recent years, making the country one of the top destinations for international medical tourists. This phenomenon is driven by various interrelated factors, creating an ecosystem that is conducive to the development of this sector. One of the key factors driving medical tourists' trust in Malaysia is the high quality of healthcare services. Study by (Damayanti et al., 2021) revealed

that the credibility of healthcare services is the main factor influencing the decision of medical tourists to choose Malaysia as their treatment destination. This shows that Malaysia's investment in improving healthcare standards has managed to build a strong reputation in the eyes of the international community. In addition to the quality of services, another factor that contributes to Malaysia's attractiveness as a medical tourism destination is the integration of technology in the health system. (Thananusak et al., 2022) demonstrating how online medical tourism facilitator platforms have adapted to new business models and leveraged digital technologies to improve their services. This innovation not only improves operational efficiency but also facilitates access to information and services for prospective medical tourists, thereby increasing Malaysia's competitiveness in the global market.

Malaysia's success in handling the health crisis, as seen during the COVID-19 pandemic, has also strengthened its position as a trustworthy medical tourism destination. (Shah et al., 2020) analyzed the actions of the Malaysia government in dealing with COVID-19, showing how the implementation of the Movement Control Order (MCO) and effective pandemic handling initiatives have been an added value to the reputation of the country's health system. Malaysia's ability to manage the health crisis is an important factor that increases the confidence of international medical tourists. Another aspect that attracts attention is the development of a holistic concept in Malaysia's medical tourism. (Meng et al., 2023) found that health resort attractions have a positive influence on the expectations and behavioral intentions of international medical tourists. These findings show that Malaysia has successfully integrated wellness elements into its medical tourism offerings, creating a more comprehensive experience for travelers. However, the rapid growth of the medical tourism industry in Malaysia also brings its own challenges. (Yusof & Rosnan, 2020) highlighting the importance of a balance between serving medical tourists and local patients. This demonstrates the need for careful policies to ensure that the growth of the sector does not come at the expense of access and quality of healthcare for the local population.

For Indonesia, the growth of medical tourism in Malaysia opens up opportunities as well as challenges. (Santoso et al., 2020) Identify nine main factors that influence travelers' decisions in choosing medical tourism destinations. An understanding of these factors can help Indonesia in developing strategies to improve its competitiveness in the regional medical tourism market. Indonesia can learn from Malaysia's success in integrating digital technology

into the health system. (Sharin et al., 2022) demonstrating the importance of a technology-based disease monitoring and prediction system, which Indonesia can apply to improve the readiness and attractiveness of its medical tourism sector. In addition, the development of the concept of geopark as a nature-based medical tourism destination, as expressed by (Dousin et al., 2024), can be an inspiration for Indonesia to utilize its natural and cultural wealth in the context of medical tourism.

Furthermore, Indonesia can take lessons from Malaysia's communication strategy in promoting its medical tourism. (Ma'ady et al., 2024) emphasizing the importance of reputation management and crisis communication in the context of medical tourism. By adopting a similar approach, Indonesia can increase visibility and trust in the healthcare services it offers in the international market. In conclusion, the rapid growth of medical tourism in Malaysia is driven by a combination of factors such as high quality of services, technology integration, effective crisis management, and the development of a holistic medical tourism concept. For Indonesia, this phenomenon presents an opportunity to learn and develop its own medical tourism industry, taking into account its unique strengths such as biodiversity, culture, and the potential for the development of nature-based medical tourism destinations. With the right strategy and effective implementation, Indonesia has the potential to become a key player in the regional medical tourism market in the future.

## **CONCLUSION**

The study revealed that the rapid growth of medical tourism in Malaysia is driven by several key interrelated factors. The high quality of healthcare services, supported by international credibility and reputation, is the main cornerstone of medical tourists' trust in Malaysia. The integration of digital technology in the health system and medical tourism management has significantly improved cost operational efficiency and traveler experience. Malaysia's ability to handle health crises, as demonstrated during the COVID-19 pandemic, further strengthens its position as a reliable medical tourism destination. The development of a holistic medical tourism concept that combines medical treatment with elements of wellness and wellness resort attractions has expanded Malaysia's appeal to international medical



tourists. However, this growth also brings challenges in balancing services between medical tourists and local patients, demanding careful and strategic policies. For Indonesia, this phenomenon presents valuable opportunities and learnings. By understanding the factors driving Malaysia's success, Indonesia can develop strategies that leverage its unique strengths, such as biodiversity and culture, to build a competitive medical tourism industry. The development of nature-based medical tourism destinations, increasing the adoption of digital technology, and strengthening communication strategies and reputation management are key areas that need to be focused. In conclusion, Malaysia's growth in medical tourism offers important insights for regional development, especially for Indonesia. With the right approach, Indonesia has the potential to position itself as a significant player in Southeast Asia's medical tourism market, capitalizing on economic growth opportunities while improving the quality of its national healthcare services.

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