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Sustainable medical tourism: Investigating health-care travel in Indonesia and Malaysia

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ABSTRACT

Medical tourism has developed rapidly and international health care has become a global industry. Indonesia has a great opportunity in the field of medical tourism, but Malaysia still ranks more highly in credibility by domestic and foreign residents in checking their health. The purpose of this study is to identify potential development of medical services with the concept of medical tourism in Indonesia by comparing with Malaysia. This study uses combination of quantitative and qualitative approaches. In the initial stage, an explorative quantitative study was conducted and processed using factor analysis. Respondents consisted of 200 patients both from Indonesia and Malaysia who had studied medical tourism. To identify obstacles and solutions in implementing medical tourism-based medical services, researchers used descriptive qualitative research, in-depth interviews are conducted to obtain more detailed information, involving 11 informants from both the medical providers (general practitioners, specialist doctors, nurses, Indonesian Doctors Association Management, Health Services) and patients. The results showed that the perception of patients using health services regarding medical tourism services based on medical tourism in Indonesia and Malaysia demonstrates: trust, communication interactions, excellent service, affordable medical costs, modern medical technology, holistic service, increased patient expectations, short distances, and an Interesting Tourism object.

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Tourism; sustainable; medical tourism; health-care travel; health services

Introduction

There is an old saying that states: ‘Travel is the best medicine’, which is very fitting given the advances in the medical industry and travel opportunities to various countries to receive medical treatment [1]. The growth of medical tourism increasing rapidly and international health care has become a global industry [2]. This is happening because of the various motives of the patients, that connect tourist and medical factors; the projected growth rate of the medical tourism industry in year-over-year for the next 10 years is up to 25%, around 3–4% of the world’s population is estimated to travel abroad for healthcare [3, 4]. Medical tourism is the tourists’ act to seek medical services internationally with the intention of healing and relaxation [5]. Nowadays, there is a competition to see which countries will take the benefit from the global industry that keeps growing [6]. Asia is one of the competitors in the global medical tourism market in affordable and high-quality care [7].

Tourism is one of the industrial sectors which is currently growing very rapidly throughout the world [8] In Indonesia, the development of the tourism industry has an impact on the complexity of the

needs of tourists. Often during the tour, visitors need adequate infrastructure and health / medical facilities, but not many hospitals are popular tourist destinations in Indonesia that are ready for it. Thus health tourism is an extraordinary potential which should be taken seriously. Tourism services are not only about natural beauty [9], culinary delights and shopping, but also health [10]. The netizens of the developed countries are now traveling to another country for medical services since they can provide high-quality services at a low price, especially Asian countries such as Thailand, Singapore, Malaysia, India [11]. Some Asian countries, with a high quality of medical services and low prices compared to other medical tourism destinations, have attained a remarkable position in the medical tourism market [12]. It is estimated that the Asian region receives more than 1.3 million medical tourists each year [13], examining more closely, the delivered health care in the future may change, patients now have global access to low cost and high quality healthcare, hence medical tourism is important [14].

Patients, as customers of health service, are the controllers of health performance produced by a health

service, as the patients also bring their family and friends to the health service [15]. Patients who are unable to obtain quick access to services because of limited insurance policies, long waiting times, and treatment options that are unavailable are encouraged to travel abroad to obtain the desired treatment [16]. The number of specialist doctors from Indonesia who have become medical experts in hospitals abroad, and the various natural beauties in Indonesia will be able to position Indonesia as one of the countries in Asia having the opportunity to garner a large market. But so far Malaysia has been more successful than Indonesia [17]. Thus, it is important to conduct this research to compare the model of developing medical tourism-based medical services, hence the hospitals and related institutions in Indonesia can develop more successfully and become targets for domestic and foreign residents in checking their health; and for the government which is a must to make efforts to reduce the tendency of Indonesian citizens to seek treatment abroad.

Medical tourism in Malaysia and in Indonesia

There are several definitions of medical tourism. Medical tourism (also often referred to as international medical tourism) is generally defined as the journey of patients seeking health services outside the main local health care area [16]. Tourist activity is currently recognized as a means of rest, recreation and learning the surrounding environment all over the world [18]. Medical tourism requires infrastructure support, one of which is the hospital. The hospital was built to provide health services to the community.

To attract patients from developed countries, medical tour packages provide a variety of facilities including procedures at predetermined prices, air fares, accommodation, land, transportation, concierge care, food, healing therapy, and additional trips to popular destinations. Often these packages are well coordinated by medical tourism companies that represent care delivery organizations in host countries [16]. Patient satisfaction derives from the implementation of excellent service; it would be better to listen to the advice or input from patients, but also this must be done seriously [19]. There is input / information where the hospital management can provide care for patients by paying attention to the needs of patients so that patients can feel satisfied. Health service management must pay attention to aspects that can make patients feel satisfied [20].

Malaysian Government began promoting medical tourism since 1998 amid the Asian Financial Crisis to diversify the health and tourism sectors [21]. Since then, public and private sector actors have not only sought to attract their country's neighbors, namely Indonesia, which has sustainable

characteristics, high volumes but low per-patient expenditures, but also medical tourists who are willing to tolerate higher costs [22]. In addition to the less stringent national regulations on medical advertising to facilitate marketing by many private sector organizations working both online and inside and outside Malaysia, initiated by the government, the Malaysian Corporation Healthcare Travel Council (MCHTC) [23], which replaced the National Committee for Promotion of Medical Tourism and Health in 2009, promoted Malaysian hospitals and clinics tourism through a special website [24] that provided doctors and supported medical services. This specially designed facility is dominated by a large multinational hospital network, which is mostly located in Kuala Lumpur (Selangor), Johor, Malacca, and Penang. However, before the national government recognized the economic potential of medical tourism, individual hospitals and hospital networks were already actively promoting themselves as medical tourism destinations, and several Malaysian state governments were also involved [25]. Malaysia also won IMTJ Medical Travel Destination of the Year 2015 at the King's Fund in London in September 2015 [14].

Meanwhile according to [26] who examined Indonesian tourists' trips to Malaysian Borneo, it was found that Indonesia's epidemiological transition meant that more advanced lifestyle diseases were not handled and managed properly. Outside the national capital, Jakarta, adequate medical specialists, technicians, equipment and facilities are still rarely found. Given the scarcity of quality health services in many regions of Indonesia [27], the growing middle class, the emergence of more affordable cross-border transportation and greater political ease in crossing borders, at least one million Indonesians are estimated to travel abroad for every treatment years [26]. However, it can still be found some evidences that Indonesia has some hospitals with international standards, and is an open opportunity for medical tourism. For example Bali Royal Hospital (BROS) that entered the medical tourism market in 2010, when Bali opened private hospital in Denpasar with a modern state-of-the art theme. Patients from Eastern Indonesia regard the hospital as a regional referral center hospital, and it has been accredited by the International Standards Organization [14].

Partly because of currency devaluations during the 1998 Asian Financial Crisis, more and more low and middle income Indonesians began entering Malaysia for medical treatment, because it is linguistically and geographically accessible, it became more affordable [28]. Recognizing the beginning of this trend and the need to fill the empty beds of local patients returning to the public health care system during the crisis, several Malaysian private hospitals began promoting themselves to Indonesians.

Healthcare travel study

This study uses a mixed method, which is a combination of quantitative and qualitative approaches. In the initial stage, an explorative quantitative study was carried out that was processed using factor analysis to identify respondents' perceptions regarding their reasons for medical treatment abroad. Respondents consisted of 200 patients both from Indonesia and Malaysia who had undertaken medical tourism. This study conducted its initial research involving 30 patients as informants who had taken medical tourism when they went abroad for treatment. In the next stage, to identify obstacles and solutions in implementing medical tourism-based medical services, researchers used descriptive qualitative research involving eleven informants from both the medical providers (general practitioners, specialist doctors, nurses, Indonesian Doctors Association Management, Health Services and patients who had conducted medical examinations abroad.) Data collection was done by in-depth interviews to gather more detailed information.

Results and discussion

Indonesia as a developing country has a huge potential to be able to attract medical tourists from foreign countries, as well as trying to attract medical tourists from within the country not to seek medical tourism abroad. Besides having many international hospitals and the quality of medical equipment technology that is not inferior to foreign countries, it is also supported by the existence of many attractive tourist destinations, including both types of halal tourism, green tourism, culinary tourism, cultural tourism, marine tourism, and many more. Indonesia has long planned efforts to provide medical tourism-based health services.

The plan for developing medical tourism in Indonesia is contained in the Constitution Number 07 of 2017, and Presidential Regulation Number 02 of 2015. The efforts made by the government have been carried out since 2012 [29, 30]. The efforts and implementation of Indonesia in developing medical tourism services are [31]:

- (1) Strengthening the legal infrastructure through the 1945 Constitution of 2009 concerning tourism and the 1945 Constitution of 2009 concerning health.
- (2) Open access to tourism from nature tourism, cultural tourism, and artificial tourism in several tourist destination areas. This effort is carried out by establishing cooperation between the Ministry of Tourism with the local government and also with related private parties. In addition, the

government is also expanding flight routes to areas that are tourist destinations.

- (3) Collaborating with various health tourism organizations. This collaboration is carried out to realize the development of health goals, for the purposes of prevention, treatment and maintenance. This form of cooperation gave birth to two development loci, namely development in the field of wellness tourism (fitness tourism) and medical tourism (medical tourism)
- (4) Developing policies and strategic plans or plans for the development of medical tourism by creating health services that are standardized internationally [32].
- (5) Establish locus in certain areas that have potential tourist destinations by developing a reliable tourism branding image in each region and highlighting its characteristics. With this focus the government encourages businesses to invest in the public in the field of tourism infrastructure and infrastructure such as providing hotels, travel agents, and health clinic businesses such as spas, reflexology and others.

The three main medical tourism destinations are:

- a. West Nusa Tenggara with marine tourism, adventure tourism and halal tourism;
- b. Bali featuring traditional cultural tourism, marine tourism and event tourism, and
- c. Yogyakarta highlighting cultural and culinary tourism, adventure tourism and event tourism.

Following are the results of research obtained from data mining with informants and respondents and supported by several literatures:

Patients' perceptions of users of health services regarding medical tourism-based medical services in Indonesia and in Malaysia

This section is the result of the study with quantitative survey approach. This study aims to determine the reasons for patients travel abroad while they have their health checked.

Profile of Respondents

200 questionnaires were collected and used in the final analysis out of the 217 questionnaires distributed at Indonesia and Malaysia. 17 questionnaires were discarded because a large portion of the questionnaire was not completed. Others referred to the table below are those who are currently housewives and students. The respondents' profile is as presented in Table 1.

From the table of respondents distribution according to demography above, 77% respondents are from Indonesia and 23% respondents are from Malaysia with the percentage of male respondents is 39.5% and the percentage of female respondents is 60.5%.

Table 1. Distribution of respondents according to demography.

Demography	Category	Number of respondent	Percentage (%)
Gender	Male	79	39.5%
	Female	121	60.5%
Age	< 27 years	15	7.5%
	27–37 years	39	19.5%
	38–48 years	50	25%
	49–59	68	34%
	>60 years	28	14%
Types of Work	Government	24	12%
	Employee		
	Private Employee	76	38%
	Entrepreneur	68	34%
	Others (Housewives & students)	32	16%
Citizenship	Indonesia	154	77%
	Malaysia	46	23%

Consumer perceptions of users of health services regarding medical tourism-based medical services in Indonesia and in Malaysia are drawn from explorative quantitative research that is processed using factor analysis. This factor analysis is carried out in 2 stages, namely preliminary research and main research. On the first stage of the study, preliminary research is conducted, which involved 30 patients who had taken medical tours when they went abroad for treatment. Meanwhile respondents in main survey consisted of 200 patients from Indonesia and Malaysia who had undertaken medical tourism. These respondents consisted of patients and families of patients who had traveled abroad to seek treatment, patients who have their health checked or visited family / colleagues who were seeking treatment abroad.

The results of the main survey that have been processed using factor analysis, as follows:

The result obtained from the calculation of factor rotation in Table 1 indicate 9 factors formed. The rotation factor can be interpreted if the loading value factor is more than 0,5.

- (1) In the first factor, indicator that has value more than 0.5 are indicator X20, and X13.
- (2) In the second factor, indicator that has value more than 0.5 are indicator X16, and X1.
- (3) In the third factor, indicator that has value more than 0.5 are indicator X11, X8, X9, and X23.
- (4) In the fourth factor, indicator that has value more than 0.5 are indicator X2, X4, X3, X7, and X12.
- (5) In the fifth factor, indicator that has value more than 0.5 are indicator X21, X5, and X14.
- (6) In the sixth factor, indicator that has value more than 0.5 are indicator X6, X15, and X10.
- (7) In the seventh factor, indicator that has value more than 0.5 are indicator X17, and X18.
- (8) In the eight factor, indicator that has value more than 0.5 are indicator X19, and X24.
- (9) In the ninth factor, indicator that has value more than 0.5 are indicator X25, X2, and X26.

The next step after the factor rotation is to perform factor interpretation. The purpose of this step is to determine which indicators can fit in a factor and which are not included in a factor. The naming of each factor in this research using surrogate method, the method is based on the highest loading factor value on each factor formed.

In the first factor, the indicator that has loading factor value more than 0.5 are the following indicators: X20 that represents overall the cost of treatment is cheaper than treatment in the capital of the country of origin and X13 that represents affordable medical costs. Based on these indicators, the factor named Affordability of treatment cost. In the second factor, the indicator that has loading factor value more than 0.5 are the following indicators: X16 that represents Clarity of diagnosis results information and X1 that represents Patients trust the doctor that he will recover as usual. Based on these indicators, the factor is named Trust. In the third factor, the indicator that has loading factor value more than 0.5 are the following indicators: X11 that represents represents Friendly services from doctor and nurse, X8 that represents the relationship between patient and health worker is not harmonious, X9 that represents Patients feel comfortable in conveying complaints, and X23 that represents Good interactions between patients, doctors and nurses. Based on these indicators then the factor is named Communication interaction factor.

In the fourth factor, the indicator that has loading factor value more than 0.5 are the following indicators: X2 that represents existing health services in the country of origin are still inadequate, X4 that represents health services in the country of origin are less enjoyable for patients, X3 that represents hospital facilities in the country of origin are inadequate, X7 that represents medical experience is not satisfactory in the country of origin hospitals, and X12 that represents the quality of hospital services is good. Based on these indicators, the factor is named excellent service. In the fifth factor the indicator that has loading factor value more than 0.5 are the following indicators: X21 that represents medical procedure is clearer, X5 that represents advanced medical equipment and technology, and X14 that represents modern medical equipment technology. Based on these indicators then the factor is named modern medical technology. In the sixth factor the indicator that has loading factor value more than 0.5 are the following indicators: X6 that represents comprehensive health services X15 that represents holistic services provided by hospitals abroad (providing specialist doctor recommendation facilities, appointments, accommodation, hotels etc.) and X10 that represents the performance of the medical staff is very professional. Based on these indicators then the factor is called or named with the factor holistic service.

In the seventh factor, the indicator that has loading factor value more than 0.5 are the following indicators: X17 that represents patients are increasingly critical of health services (Increasing levels of knowledge and global flows) and X18 that represents patient's expectations are getting higher (towards the desired medical services). Based on these indicators then the factor is named increased patient expectations. The eighth factor the indicator that has loading factor value more than 0.5 are the following indicators: X19 that represents treatment to Malaysia or Singapore is preferred because it is closer than the hospital in the metropolis city and X24 that represents prefer treatment to Malaysia or Singapore than other countries. Based on these indicators then the factor is named close distance. The ninth factor the indicator that has loading factor value more than 0.5 are the following indicators: X25 that represents shopping for souvenirs or branded products after checking health in the destination country X22 that represents tourist visits while taking health treatment because the country abroad have attractive tourist destinations and X26 that represents vacation in the destination country after checking health. Based on these indicators then the factor is named interesting tourism object.

- (1) Affordability of treatment costs
In addition to good medical equipment and technology, the overall costs during the treatment process are cheaper. Consumers do not need to be too wealthy to be able to seek treatment abroad.
- (2) Trust
The trust between patients and the doctor gives an impact that the patient believes in the credibility of the medical team: the doctor can diagnose the patient's disease and with treatment, the patient can recover as expected. Clarity of diagnosis results can be trusted.
- (3) Communication interaction
The communication interaction that exists between the patient and his family with the medical team, namely doctors and nurses, provides a perceived comfort and reduces psychological anxiety.
- (4) Excellent service
Health services from the medical team both from doctors and nurses, provide a pleasant experience that is different from the experience of health services from hospitals in the country of origin that have been experienced and were not pleasant. The professionalism and friendliness of the medical team makes a good impression for patients and their families.
- (5) Modern medical technology
Hospitals not only use advanced technology in medical equipment, but also provide clear and easy medical procedures.

- (6) Holistic service
Overseas hospitals provide holistic service, for example providing specialist doctor recommendation facilities, appointments, plane tickets, hotels and tourist attractions.
- (7) Increased patient expectations
The level of patient expectations is increasing for the desired medical services. The patient is becoming more critical. This was triggered by increasing knowledge and global flows.
- (8) Close distance
Some patients have the urge to seek treatment abroad because their distance is closer to the capital of their home country even though there are hospitals that are also of good quality.
- (9) Interesting Tourism Object
Consumers are also motivated by the desire to make tourist visits in addition to treating several countries that have attractive tourist destinations including Malaysia, Thailand and Singapore.

Based on the results of the factor analysis survey above, the results show that the first factor is the affordability of treatment cost. This is in line with the results of the interview that show the healthcare system in Malaysia is better than in Indonesia, one of the respondent, dr. Yoan said

In Malaysia, the cardiologists are more inexpensive than the cardiologists in Indonesia, one of my relative had bypass surgery there, but the facilities are actually the same with Indonesia, the doctors in Malaysia explained palpably. It is more inexpensive to install ring and other medical actions in Malaysia, especially Penang. My relatives who are doctors also acknowledge that doctors in Malaysia are skilled.

From the opinion of the respondent, it can be concluded that the healthcare in Malaysia is better, at the very least, in terms of the doctor specialist.

Communication between the medical team and patients and their family is most important as it caused positive mental health for the patient [33]. Public awareness of acute, maternity and pediatric services is moderate, fair for oral health and poor for all other services, especially mental health [34]. Excellent service is important. Unique services with new knowledge and equipment and experienced clinical staff to meet patients' needs with appropriate price and quality have to be provided [35]. Perceived Service Quality is positively related to satisfaction in health and behavioral intention in health, but quality is not only a priority for patients [36]. Because of the high costs, people are likely to seek affordable medical services in foreign countries – and most probably in emerging ones; one of the financial issues is the lack of health insurance compensation for some expenses of medical services in emerged countries [12]. The recent trend of moving people from developed countries is to develop

medical treatment because of the cost factors offered by various developing countries at affordable prices, although traditional patterns still continue [10]. Most modern technology can help patients to gain a better diagnosis. Technology is revolutionizing diagnostic and therapeutic procedures and patient management approaches [36]. The technology factor also describes the level of utilization of technology, research and development in business; the use of technology tries to predict the extent to which a business utilizes technology for management and the marketing purposes [8].

Professionalism in hospital management, international accreditation, and exclusive facilities for the medical tourist are some factors that are driving medical tourism. It seems to be a holistic service [37]. Increased access to information and knowledge about patient rights has led to a corresponding increase in demand for quality services from health care providers. Also, patient satisfaction is positively related to behavioral intention in health care, and a positive link between PSQ and behavioral intentions in health care [36].

Identified obstacles that arise and the solution in implementing medical tourism-based medical services

The medical tourism industry is currently one of the fastest-growing industries in the world to be faced with new problems, obstacles, disputes, and threats [10]. To identify obstacles and solutions in implementing medical tourism-based medical services, researchers used descriptive qualitative research involving eleven informants from medical providers (general practitioners, specialists, nurses, Indonesian Medical Association Managers, Health Services and patients conducting medical examinations). Overseas medical data collection was carried out by means of in-depth interviews to acquire more detailed information.

Obstacles that arise in implementing medical tourism-based medical services are:

(1) Legal, religious and cultural barriers

Legal and religious barriers, for example, exist in organ transplants which are still considered to violate the provisions. There are barrier such as ethical issues, cross culture and language, and visa restrictions in [37].

(2) Quality and safety of medical services

Many hospitals are allowed to exist, but in terms of quality and safety of services to patients, some hospitals are still lacking supervision. Quality of care and long waiting times have been the main causes of the low utilization of public health facilities. However, as mentioned in many studies

in the study, quality is also subjective with various levels of perception in many private health care institutions in India [38].

(3) Insurance companies

Some insurance companies tend to provide recommendations for foreigners living in Indonesia to seek treatment in Singapore or Australia rather than from hospitals in Indonesia. The health insurance sector, such insurance companies and insurance plans, are important to keep patients in order to get medical treatment [11, 37]

(4) The Ministry of Health does apply hospital accreditation as part of quality control, but is more about hospital management.

(5) The ability to communicate and the willingness to explain to patients or their families is still very weak.

(6) Lack of studies on how much medical error, rationality of therapy, and deviant events can be used as a milestone for quality improvement in the following year. Human resource management and implementing and monitoring appropriate changes in clinical processes are crucial. Unwanted accidents and medical errors are important from various ethical, medical, legal and economic aspects so that planning, policy making, and serious interventions include the most important priorities of the health system in line with the analysis and identification of errors and to make efforts to decrease them [39].

(7) Limited language mastery (both from the provider of medical tourism services as well as patients and their families)

(8) Human resources (expertise / skills in serving patients)

(9) Availability of medical and supporting facilities and services is still limited. The marketers need to focus on improving performance and the status of physical health facilities. Hospitals must try to maintain an environment that is tidy and clean; the wards and waiting rooms should be fun and designed to provide patients a sense of relaxation and comfort [40].

(10) Organizing medical tourism activities in hospitals with tourist objects.

The efforts and application made by Malaysia in developing medical tourism services are:

(1) Promoting medical tourism to various countries by establishing the National Committee for the Promotion of Medical and Health Tourism (NCPMHT). The aim of this agency was to establish policies so that the industry could grow by identifying suitable target countries for the promotion of health tourism, proposing appropriate tax incentives, and others. Now NCPMHT has

been renamed Malaysia Healthcare Travel Council (MHTC), with both private and government hospitals collaborating to promote Malaysia as a health tourism destination since NCPMHT was founded.

- (2) The application of a visa for three months from arrival can also be used during treatment in the neighboring country.
- (3) Open flight service access in Penang which is a medical tourism center in Malaysia. Access to flights in Penang is served by airlines from various countries.
- (4) Improving the quality of health services and international certification. Malaysia has many health facilities and services that are accredited by the Joint Commission International (JCI), JCI itself is an international institution that provides certification of health facilities as a destination for medical tourism. In addition to the many doctors sent to gain specialized education from the United States, Britain and Australia, these doctors certainly have fluency in English.
- (5) Developing hospital business networks by opening hospital services in neighboring countries. With the development of this network, some patients who were treated in Malaysian hospitals in neighboring countries, were referred for treatment in Malaysia. Among the successful hospitals that have a large network is KPJ Healthcare Berhad, which has 24 specialist hospital networks in Malaysia and Singapore, as well as two hospitals in Indonesia. These have served more than 2.5 million patients each year consisting of 2.4 million outpatients, and the rest inpatients [41].
- (6) Signing an MoU with a digital-based travel agent company in a neighboring country. Among them is the Malaysia Healthcare Travel Council to work together to expand the offer of health tourism services in Malaysia and strengthen the position of the neighboring country as the best health tourism destination in the world with Traveloka. Traveloka itself is a provider of tourism services in Indonesia and with this partnership Malaysia provides a discount promotion to attract interested people in lodging at certain hotels by booking through Traveloka.

Based on observations and interviews, some of the healing services that are the main attraction in medical tourism-based health work are related to: knee replacement surgery, cosmetic surgery, laser treatments and weight loss. Based on the results of the literature review, the medical services offered are also very diverse, from easy treatments (for example, facial and massage) to invasive and high-risk operations (for example, heart surgery and organ transplants), or a combination of both [42]. Treatments can be

separated into three categories: preventative medical services such as medical examinations, minor operations such as cosmetic surgery and dental surgery, and large invasive procedures such as knee replacement and gender transformation [43]. Thus, medical tourism is the practice of traveling to other countries with the aim of obtaining health care (elective surgery, dental care, reproductive care, organ transplants, medical examinations, beauty treatments, etc.).

Medical Tourism come from low to higher income countries with better medical facilities. Nevertheless, the trend has reversed and recently the relationship of medical excellence has developed, enticing people regionally. Many countries participate in medical tourism as exporters, importers, or both [44]. The countries that contribute as the main importers are those with medical tourists such as North America and Western Europe. The countries that provide services for medical tourists or the main exporters are located on all continents, including Latin America, Eastern Europe, Africa and Asia. Countries specialize in certain procedures. For example, India and Thailand specialize in cardiac surgery and orthopedic, while countries in Eastern European are hotspots for dental surgery [45].

The following plans can be used as a development solution to the medical tourism development model based on the description of the factors that encourage consumers to undertake medical tourism to other countries and the obstacles faced by Indonesia when implementing medical tourism-based medical services:

- (1) An 'international standard' hospital needs to be built in the country including the grandeur of buildings and the sophistication of equipment. Improve service excellence including good communication between patients and the medical team, although in terms of intelligence Indonesian doctors are no less qualified than in other countries. In fact, many specialist doctors from Indonesia have become skilled medical personnel in several other countries.
- (2) Submit the supervision of the quality of medical services to independent institutions, even if formed by the state. The United States has an Institute for Healthcare Improvement (IHI) established by the Institute of Medicine and involves universities and consumer / member representatives including universities, service providers, and payment representatives (insurance and consumers) / government along with professional organizations and health insurance associations.
- (3) Quality control is not only carried out on the completeness of facilities, but also in aspects of efficiency and accuracy of patient handling. The aspect of efficiency includes the accuracy of using sophisticated equipment, so as not to only

pursue capital returns. The institutions periodically hold evaluation meetings in addition to issuing various guidelines on service quality.

- (4) Interpretation of service quality involves the viewpoint of doctors, patients and hospital owners.
- (5) Collaboration with travel agents and tourism agencies. This needs to be understood because patients and their families also consider the benefits of a vacation to several tourist destinations.
- (6) There are regulations from the government regarding the entry of Foreign Health Workers.

There is conditional registration for doctors, dentists, and specialists, considering that the number of reliable doctors in Indonesia is also very large and has reliable expertise. Thus Indonesia is one of the tourist receiving countries and is able to compete competitively. In the present era, almost every industry is facing the challenge of a high competition and dynamic business environment while striving for the effective marketing performance [46]. To be aware of and increase the best services for facing medical tourism, the quality of medical services to patients, medical equipment technology, hospital management, price and benefit comparisons, and communication affect the intention to recommend health services and the intention to use health services [10]. In order to make the relationship marketing run well, the company should know the patients' understanding about the relationship marketing in the field of health based on their own perspective [47]. Health problems has become a major requirement along with the increasing the social circumstance, the society increasingly aware of the importance of health [48]. In addition, Indonesia needs to develop a roadmap for health services that are the mainstay and attractiveness to medical tourists to check their health to Indonesia, for example stem cell services for chronic diseases and for beauty (youthfulness) which are driven by university hospitals such as Universitas Airlangga and the University of Indonesia. Besides increasing a country's income, the tourism sector also creates sustainable employment for the local population [49].

Implications of medical tourism in Malaysia vs. Indonesia

Virtually, medical tourism is not only relevant to one country. Other countries can use the concept of integrated medical tourism to develop medical tourism in their countries. By paying attention to the obstacles faced by each country this concept will be able to be a source of income generation for a country. Development of medical tourism has occurred in many countries in Asia, such as Malaysia, Singapore, Thailand and others. Developed countries will be able to

offer technology as one source of competitive advantage from this medical tourism program.

Medical tourism is able to become a major force attracting foreign tourists to a country, if each party can be integrated. Tourists from abroad can take the package visit to a destination as an alternative part of one tour package, sightseeing everywhere, then use medical services to diagnose the disease. Thus between medical check and tourism, an attractive integrated unit to be developed according to the conditions of each country. The implementation of medical tourism will be effective and sustainable, if managed properly and professionally. Of course, the placement of the hospital center as a destination for medical tourism should be close to tourist destinations that are classified as the most visited by foreign tourists. For example, Bali, which is one of the centers of tourist destinations in Indonesia, is also building an international hospital so that tourists can easily access it. Therefore, cooperation is needed from the government with relevant agencies both in the medical field, tourism and immigration and others. Thus, government spending and providers of medical services and tourism become efficient, with income and spending per capita increasing. Of course, state income from this aspect will also increase and integrated medical tourism will be offered by many countries.

Conclusion

Indonesia has long planned efforts to provide medical tourism-based health services. The plan to develop medical tourism in Indonesia is contained in the Constitution. Therefore further studies are needed to develop medical tourism. The results of the study showed that the perception of patients using health services on medical tourism-based medical services in Indonesia and in Malaysia are trust, communication interactions, excellent service, affordable medical costs, modern medical technology, holistic service, increased patient expectations, short distances, and Interesting Tourism objects. Solutions to counter obstacles to implementing medical tourism services include: the necessity for 'international standard' hospitals, improving service excellence and good communication, surrendering quality control of medical services to independent institutions,, interpretation of service quality from the point of view of doctors, patients and hospital owners, in collaboration with travel agents and tourism agencies, as well as government regulations regarding the entry of Foreign Health Workers. Thus Indonesia, which receives many tourists is able to participate competitively.

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