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Factors Influencing the Satisfaction Level of Medical Tourist in Malaysia

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Abstract: Medical tourism refers to the act of traveling to other countries for medical treatment, dental care, and surgical care, etc. Malaysia is one of the world-famous medical destinations, including Brunei, the Philippines, Singapore and Thailand. The current problem statement is some other developing ASEAN countries such as Philippines and Nepal do not provide high-quality healthcare, sufficient resources and infrastructure so they do not have the chance to get medical services in their own countries. Therefore, this research is significant to study what are the factors influencing the satisfaction level of inbound tourist who visit to Malaysia for medical care. The Statistical Package for Social Sciences (SPSS) will be used to examine the data. During the whole research process, the researcher distributed questionnaire to 384 inbound ASEAN tourists in Kuala Lumpur, Malaysia, and 240 respondents agreed to participant in the research. The results show that all the variables (Cost, Quality, Facility, Service and Environment of medical care) are positively correlated to the satisfaction level of medical tourist.

Keywords: Medical tourism, Satisfaction level, Inbound tourist

1. Introduction

Medical tourism or medical travel refers to the act of traveling to other countries for medical treatment, dental care, surgical care, etc. (Sousa & Alves, 2019). In the past 15 years, this has become a popular way of traveling in several countries. Among the Association of Southeast Asian Nations (ASEAN) countries, Malaysia is one of the world-famous medical destinations, including Brunei, the Philippines, Singapore and Thailand. According to the survey, the reasons why patients travel for medical care including lower medical expenses, seeking medical specialist, waiting times, safety and medical quality. Furthermore, patients, whether rich, middle class or poor, prefer visiting to Malaysia, Singapore and Thailand for medical purposes, especially in the post COVID-19 era (Rajan *et al*., 2013). This is because the government has improved the infrastructures and increased the number of medical schools, medical universities, hospitals and rural clinics where plays a significant role in giving health care services to attract more inbound tourists to Malaysia (MIS DGHS, 2018).

Malaysia has developed or establish a medical center, so that patients can receive a wide range of medical services, such as high-end surgeries (organ transplantation, cardiology and ophthalmology) like in Singapore (Mohezar *et al.*, 2017). The satisfaction of inbound tourists will be one of the important factors and key indicators to determine the success of Malaysia's medical tourism, because all ASEAN countries are paying attention to this industry in order to improve its image and gain more profit at the same time (Nakhaeinejad *et al.*, 2021). In the medical tourism business, everyone who travels for treatment aims to get service from health care providers with advanced technology and professional attitude, because they have high demand for acceptable high- quality services.

Medical tourism industry is one of the biggest tourism markets in all the Association of Southeast Asian Nations (ASEAN) countries. The same goes for Malaysia, the government of Malaysia has been focusing on the medical tourism industry since the 1990s and launched a few programs to attract more international tourists visit to Malaysia for holiday, shopping and sports but especially healthcare treatment. There are several ASEAN countries providing medical treatment to the foreigners such as India, Thailand and Singapore (Chandran *et al.*, 2017). However, there are not many countries offering an attractive package of medical tourism as in Malaysia.

Since the 2000s, Malaysia's government has witnessed the increasing numbers of tourists seeking treatment and medical care such as optometry, audiology, psychology, occupational therapy, physical therapy, athletic training, and other health professions in Malaysia. The medical centers, healthcare center, hospitals and other related agency took necessary measures to improve the facility and equipment to serve the patients from ASEAN countries. According to the data shown, 12.9 million of the 25.7 million tourists who visited Malaysia came from Singapore. (Chandran *et al.*, 2017).

Based on the current issue regarding to health or medical sector, citizens from Philippines and Nepal, the developing countries do not have the chance to get medical services in their own countries (Sultana, 2021). More and more patients choose to neglect the importance of medical treatment or give up to seek for treatment when they fall sick especially patients who infected cancers, diabetes and Covid-19 (Makary & Daniel, 2016). In addition, not all areas in ASEAN countries have sufficient resources and technologies to serve the patients. For example, in Philippines and Nepal did not establish enough of medical centers and hospitals to provide services to the local patient (Sultana, 2021). Therefore, the government or authorities from that country are still worried about the impact of inadequate resources and infrastructure on its people. Based on these current issues, Malaysia's government have to improve the quality of medical care in our country, offer in the cheapest price to the patients and enhance the facilities and environment of treatment to attract more patients visit to our country instead of other ASEAN countries. Based on the report stated that lack of practice and training health care providers may lead to medical error to the patients. The death caused by medical error has been reported in almost 44000 to 98000 cases annually (Makary & Daniel, 2016).

Other than that, the percentages of the patients who suffer from certain diseases from some of the ASEAN countries are increasing in recent years. Most of the patients living in ASEAN countries are unable to receive quality health care in their own countries (SAIPRASERT, 2011). According to the World Health Organizations (WHO), half of the ASEAN countries with insufficient essential health services leads to 100 million of people suffering from loss of necessary health care treatment. Therefore, this research is significant to be conducted in order to identify what are the factors and triggers that cause ASEAN tourists to visit Malaysia for medical care and the relationship between the factors and satisfaction level of medical tourist in Malaysia. Besides that, the effect of the satisfaction level of tourists to our country will be analyzed throughout this study.

Due to the most visitor's states in Malaysia are Selangor and Kuala Lumpur so the target destinations to conduct this survey will be located in Kuala Lumpur, Malaysia. For the sake of study's accuracy, the researcher will head to Kuala Lumpur, Malaysia to collect the information and responses from the respondents who are the adults with stable occupations. This study also aimed at assessing the satisfaction level of inbound ASEAN tourists during their visit in Malaysia. The major purpose of this study is to identify how independent variable such as cost of medical care, quality of medical care, facilities of medical care, service of medical care and environment of medical care in Malaysia affect the destination decision of those medical tourist and the reason why they choose Malaysia as their

medical destination rather than other country. These findings will guide this research to make reasonable suggestions for the development of medical tourism. This will fill in the research gap of medical tourism related literature in Malaysia.

The objectives of this research will be to identify the factors influencing the satisfaction level of medical tourist, to examine satisfaction level of medical tourist and to find out the relationship between factor and satisfaction level of medical tourism.

Malaysia receives almost 25 million tourists every year. To ensure the data accuracy, the study will be conducted in Kuala Lumpur, Malaysia with having the second highest number of tourists every year in Malaysia. The target respondent is inbound ASEAN tourist who are and adults with stable occupations. Qualitative method will be adopted in this research and a questionnaire will be distributed to 384 inbound ASEAN tourist in Kuala Lumpur.

The predicted data will help tourism agency, medical departments and the government to make new plans and packages to attract international patients to visit Malaysia. This study can also help the Ministry of Tourism and Ministry of Health (MOH) to understand the impact of satisfaction level of tourist to our country's medical tourism industry and the relationship between the factors and satisfaction level of tourist in medical tourism.

2. Literature Review

2.1 Tourism industry in Malaysia

Malaysia provides a variety of tourism activities, including medical tourism, agricultural tourism, sports tourism and educational tourism, in order to achieve the goal of becoming a high-income country in the future. Tourism is the third biggest contribution to our country's economy and Gross Domestic Profit (GDP) requires the profits of tourism to sustain the finances of Malaysia. According to the research of Puah, Jong, Ayob, & Ismail (2018), tourism sector became the target of development by Malaysia government started from 1980s. Based on the records, Malaysian tourists rose from 19,386,115 tourists to 20,109,203 tourists in 2019 (Abas, 2019). In 2014, the total contribution of tourism to the gross domestic product (GDP) was 14.9%. However, in 2015, the total contribution of tourism in Malaysia dropped to 9.8%.

2.2 Medical tourism in Malaysia

Medical tourism has become a major contributor to the economy of Malaysia and our country has developed into the fastest-growing country in ASEAN countries (Chandran *et al*., 2017). Malaysia medical tourism is working under the Ministry of Health (MOH). MOH cooperate closely with Ministry of tourism and culture (MOTAC) to promote medical tourism and provide an effective system to strengthen government and private health institutions(Hanafiah Juni & Abdul Manaf, 2018). Therefore, Malaysia has seen the best option for patients from another country to seek medical care abroad. Malaysia's government has cooperated with several institutions to implement incentives to promote the country to become a hub of medical tourism. The government's close cooperation with the business sector demonstrates its commitment.2.4 Factors influencing satisfaction level of medical tourism

The patients would decide to go abroad such our neighborhood countries, India, Singapore or Thailand for healthcare service whenever the performance of medical treatment is not satisfying in Malaysia. In addition, patients will choose the medical tourism destination with low cost of medical care, quality and service of doctors, treatment facilities, and environment of treatment. A country's demand for medical tourism is directly related to the patients' satisfaction with the services. Patient satisfaction is the key to deciding the destination of medical tourism. The literature review includes several factors that may affect patients' choice of medical tourism destinations.

2.3 Factors influencing satisfaction level of medical tourism

(a) Cost of Medical Care

There are several important aspects which could affect the final travelling medical destinations, one of it are the cost. Cost is the main key to determine whether its competitiveness is high or low in that particular field. Medical tourism consists of various costs such as service cost, treatment cost, facility cost and so on (Oliver, 1997; Hart, 2007; Luo and Homeburg, 2007). Malaysia government and private hospitals provide a very affordable and low prices medical cost to the patients. This is because the government has subsidies to the healthcare service and Malaysia is a low standard of living country. Therefore, most of the patients who visit in Malaysia may enjoy low cost of medical health services as compared to other developed countries.

The National Heart Institute of Malaysia (IJN) was established in August 1992s. The mission of IJN is providing standard healthcare to treat paediatric heart patients. IJN is a popular heart institute founded by Tan Sri Dr Yahya Awang and treats over 4 million patients in a year. IJN has successfully attracted a lot of inbound tourists to Malaysia for receiving health care. Compared to the United States and United Kingdom, patients prefer to visit Malaysia for paediatric heart treatment because of the low-cost service fee and exchange rate (Chandran *et al.*, 2017).

(b) Quality of Medical Care

The service quality provided by the doctors and nurses in the medical field is an important key to attract the patient from abroad to visit Malaysia. It will be the significant factor that may influence the patients' satisfaction. When the doctors and nurses provide excellent quality to every patient who comes to receive the medical care, the patients' satisfaction level may directly increase. Good quality of medical care included the doctors and nurses able to identify the disease effectively, provide the right and clear queries, explain laboratory reports and so on. The patients require doctors to be more empathetic, concentrating, deliver personal care and able to give mental support to them (Andaleeb *et al.*, 2007).

Quality healthcare will be another factor that could lead to an increasing number of inbound tourists. Malaysia's medical institutes provide 24-hours healthcare centres for medical tourists, providing consultation service from the beginning to the ends of rehabilitative treatments and therapies. These facilities provide high-quality recuperation and rehabilitation services by combining care, closeness, and technology. For example, some medical procedures in Malaysia are less expensive compared to other ASEAN countries, other elements such as government assistance, infrastructure, reduced waiting times, privacy, and a welcoming environment are important to tourists. This demonstrates why Malaysia is a desirable destination for healthcare, particularly among middle-class international inbound patients(Chandran *et al.*, 2017).

(c) Facilities of Medical Care

Hospital or medical institutions should have core medical processes such as heart surgery, cosmetic surgery, dental surgery, ophthalmic surgery, fertility treatment, orthopaedic surgery and organ transplantation. The Ministry of Health department Malaysia is keen to invest more medical equipment and machines to ensure that some of the disease could be cured by the new medical devices. When the environment of the medical destination is far away from war and peaceful, patients will choose this country rather than other ASEAN countries for visiting.

In addition, the facilities and infrastructure of healthcare centres should be sufficient and advanced. Medical tourism includes all kinds of treatments, ranging from various important treatments to different kinds of traditional and alternative treatments. When patients' satisfaction is high, the image and market value of a specific hospital will increase. When physical facilities in the hospital, such as the operating theatre, medical stuff, and infrastructure, are tidy and clean, a positive atmosphere will be created and the satisfaction of patients will be improved. Physical entrance inside and outside the hospitals are often included in hospital environment assessments. The satisfaction of hospitalized patients will increase in an full and pleased atmosphere (Kavadas *et al.*, 2004).

(d) Service of Medical Care

Services of medical providers, such as their helpfulness, courtesy and positive attitude in serving patients or provide treatment, have an important influence on the satisfaction of medical tourist. According to (Sultana, 2021), the services of medical personnel contribute to the ratio of medical tourism. The medical service is an intangible element, such as convenient transportation, availability of 5G Internet, short waiting time and staff's willingness to help medical tourist. Medical staff's ability to provide appropriate service to tourists has a profound impact on the satisfaction level of medical tourism.

According to (Qi *et al*., 2018), the main factor that influencing the satisfaction level of medical tourist is service quality. When the relationship between patients and service providers can be increased, the satisfaction level of the patient will be directly improved. Service quality can be described as the most important factor when conducting a business in order to enhance the development of the country as well as the medical field. Nowadays, patients from ASEAN countries need to enjoy a high-quality medical service from their country(Kerdpitak & Heuer, 2016). Due to most of the developing countries do not provide various medical services in their own place, they will choose to take holidays in Malaysia to get health care service. Therefore, quality service is important to influence their decision on medical trip.

(e) Environment of Medical Care

Patient satisfaction is important to the market value of hospitals, because satisfied customers would receive positive images and feedback, which might help for medical centre in the future. The important factor that affects the satisfaction of medical tourists is not the medical expenses and services, but the environment of medical care, because the physical facilities such as operation theatre, hospital bed, washroom, etc. can be the key to tourist's medical travel decision. In other words, the better the environment of a medical centre or hospital, the higher patient's satisfaction.

The environment can be defined as the internal facilities as well as the surroundings environment, including safety of country, crime rate, climatic condition, political issues, regional security, etc. The surroundings environment of medical center and country are significant for the tourist from ASEAN countries, because the patients enjoy to receive health care in a safe and peaceful country rather than a dangerous destination(Hussin & Buchmann, 2019). As Malaysia being one of the countries with stable climate condition, safe and stable political issue, medical tourist from ASEAN countries especially Cambodia, will give a high priority to visit Malaysia for medical purposes.

2.4 Relationship between the factors and satisfaction level of medical tourism

Throughout the studies, it shows that the factors such as medical cost, quality of medical care and facilities and environment of treatment has a positive relationship between satisfaction level of tourist in medical tourism Malaysia. Relationships between factors in medical tourism can be characterized as the improvement of mutually advantageous relationships with patients, as well as the possible termination of unfavorable ties with healthcare management and medical tourism stakeholders. This is done to meet the needs of patients and to reach an agreement between tourist and healthcare management, as well as medical tourism interests, in the development of tourism experiences.

2.5 Importance of medical tourism to Malaysia

Due to a stimulation of increased willingness of patients to travel abroad, this industry has been positioned by many countries as a potential sector that could generate significant economic benefits. The Malaysia government should focus on development of medical tourism industry to attract foreign investment as well as enhancing the development of specialized medical services. The revenue earned by the medical tourism has contribute significantly to the country income. In addition, the government should invest in medical tourism industry to boost the national income in order to hit the target as a high-income economy status in future. Hence, a variety of tourism packages has been launched and promoted to attract more international tourists especially ASEAN tourists.

Employment opportunity and attracting foreign investment are the important features that may contribute to the economy Malaysia. Medical tourism enables to support the supplies of foreign exchange, create more job opportunities, transportation and accommodations that may foster economic growth by providing added value. In other word, Malaysia government promote medical tourism to foreign country, investor from other countries may invest this related industry in Malaysia. Thus, Malaysia may obtain more investment to enhance the quality of health care service and focus on Research and Development (R&D) of medical tourism. In addition, medical tourism industry required professional doctors, nurses, physician to provide quality health care services to the patients. The job opportunities will be increases and unemployment rate will relatively decrease.

Therefore, the impact of medical tourism on a country's economic growth has attracted a great deal of attention among economists and policy-makers. Furthermore, tourism development has been established as a popular strategy for economic growth in the world economy. Malaysia has grown to become one of the world's most important tourist destinations country in 2015. In recent years, the tourism sector has emerged as a significant contributor to the economy and has been identified as one of Malaysia's major sources of economic growth; it accounts for at least 8–12% of the country's GDP, and nearly two million jobs were created by the tourism sector and tourism-related industries in 2013 (Puah *et al.*, 2018) . This demonstrates the growing importance of the medical tourism industry to the Malaysian economy, and the following are the most important reasons for Malaysia to success in medical tourism industry: low medical treatment cost, reliable and safe healthcare service, peaceful environment and so on (Chandran *et al.*, 2017) .

Tourism can be used to stimulate overall economic growth, and policymakers must be aware of the effects of tourism policies on economic growth. The government should assist the travel and tourism industry in expanding as much as possible by focusing on long-term policies, and tourism development should be a part of Malaysia's development planning, which includes improvements in infrastructure, marketing skills, resource allocation, and educational opportunities. Due to the government pay attention on development of medical tourism, the inbound tourist to Malaysia has rose from 25.03 million in 2012 to 24.70 million in 2014 (Puah *et al.*, 2018).

2.6 Conceptual Framework
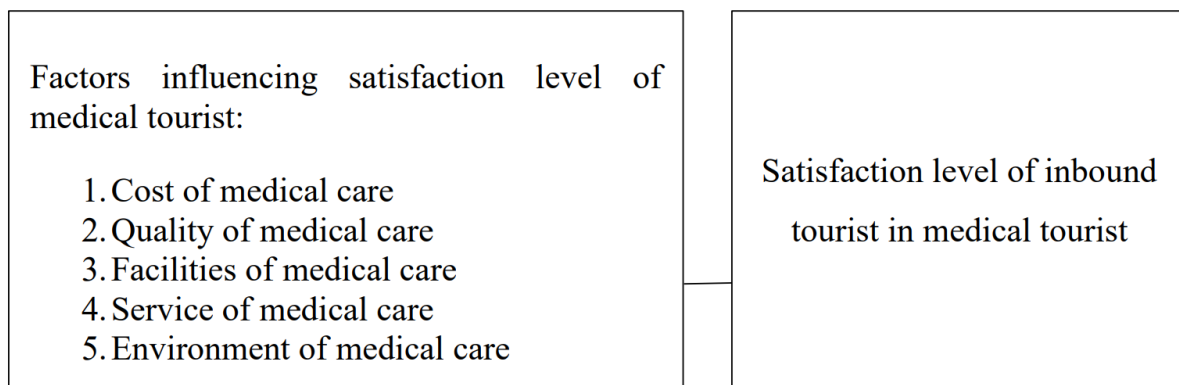
Figure 1: Conceptual framework

The conceptual framework of the study is shown in Figure 1. According to the model, the independent variable is cost of medical care, quality of medical care and facilities and environment of treatment. The dependent variable is satisfaction level of inbound tourist in medical tourist

3. Research Methodology

3.1 Introduction

This chapter will discuss and illustrate the research design, sample method, data collection, research instruments and data analysis (Basendwah *et al*., 2022).

3.2 Research Design

Before starting the research, the design of the research is the important criteria. There are three types of design able to be used by the researcher, such as quantitative, qualitative and mixed method. The guidelines for research procedures will be provided by the method selected in the research.

In this study, the method that could be used is quantitative study. Quantitative research is a method of generating digital data and converting it into statistical results. According to (Rahi, 2017), this strategy will focus on data collection and data analysis from the huge population problems, while ignoring people's emotions and the environment in which they live. Therefore, the focus of this study will be the questionnaires sent to respondents, so as to collect data and achieve the research objectives.

3.3 Research Population and sample

In this study, the target population is inbound tourists in Kuala Lumpur, Malaysia. According to the Krejcie & Morgan table, it is composed of 384 tourists in the target destination of the population. The target respondent will be the medical tourist who are the adults and visit in Kuala Lumpur, Malaysia. For the sake of study's accuracy, the researcher will head to Kuala Lumpur, Malaysia to collect the information and responses from the respondents who are the adults with stable occupations.

3.4 Sampling Model

It consists of two types of techniques which are random sampling and non-random sampling. In this research, a non-random sampling technique will be used to collect the responses. Non-random sampling can be classified into four types: quota sampling, snowball sampling, judgement sampling, and convenience sampling (Rahi, 2017). The convenience sampling approach was employed to acquire data. The convenience of research and the simplicity of sample are the reasons why this method will be used.

3.5 Data Collection

Data collection is an important aspect of research since it ensures that the research process would works smoothly and the study objectives can be achieved at the same time. It is the process of gathering data from appropriate sources, testing hypotheses, and evaluating the results. There are two categories of data used in this study: primary data and secondary data.

(a) Primary Data

There are three methods to collect primary data which are from observing, interviewing and distributing questionnaire (Buchanan, 1981). In this research, a set of questionnaires will be developed to collect primary data. The questionnaire is distributed to the inbound tourist in Kuala Lumpur, Malaysia from ASEAN countries.

(b) Secondary Data

Based on the study, secondary data is acquired from the internet and library resources. The resources included a journal, book, report, published articles, and the official website

3.6 Pilot Study

The questionnaire that formed in this study was developed by reviewing prior studies and doing a literature review. Therefore, before the questionnaire is distributed, a pilot test will be conducted to assess the validity and reliability of the questionnaire. This is the last and most important stage of data

collection, because it helps to improve the reliability of survey questions. A total of 30 questionnaires were included in the test.

3.7 Research Instrument

The research instrument is a tool for gathering, evaluating, and analyzing data from the topics relevant to the study. The data gathering instrument in this research study is questionnaire.

(a) Questionnaire

Part A, Part B and Part C are the three sections of the questionnaire. To meet research 's aim, part A will be the respondent's demographics, and part B will be the independent variable such as cost of medical care, quality of medical care, facility of medical care, service of medical care and environment of medical care while Part C will be the dependent variable which is satisfaction level of medical tourist.

3.8 Data Analysis

In this study, descriptive statistics were used to analyze the data obtained from the questionnaire. Descriptive analysis is used to simplify, summarize and organize digital data. The Statistical Package for Social Sciences (SPSS) was used to examine the data, and forecasting techniques were applied. The data analysis statistical software program will be utilized to address the research objectives which include the reliability analysis, descriptive analysis, normality analysis and correlation analysis.

(a) Normality Test

Normal analysis is to check whether the data set are well modeled, and to calculate the probability of normal distribution of random variables. The Kolmogorov-Smirnov Test and the Shapiro-Wilk Test are two widely used tests for normality. When the sample size was less than 50, Shapiro Wilk was used. However, because the sample size is greater than 50, Kolmogorov-Smirnov was used in this study.

(b) Correlation analysis

The correlation between the two variables is determined using correlation analysis. Pearson or Spearman correlation coefficient is a statistical method, which indicates the direction, intensity and importance of the relationship between two variables. This research aims to test whether there is a relationship between factors and satisfaction level of medical tourist. If the data is regularly distributed, the Pearson correlation is used. However, if the data distribution is irregular, the Spearman correlation is used. Pearson correlation is determined by multiplying the sample size of two variables by the product of their standard deviations, which shows the strength of linear correlations. (c).

3.9 Reliability and Validity

A reliability testing is very important in a research or investigation. In addition, consistency and effectiveness can be measured using a reliability testing. The purpose of the reliability testing is to determine the consistency and reliability of the measurement. The researcher chose Cronbach's alpha (α) in the survey. The researcher has chosen Cronbach's alpha (α) in the survey (Dabaghi *et al*., 2022). According to the Cronbach's Alpha, when the result is greater than or equal to 0.9, the internal consistency is excellent. When the result is lower than 0.5, it indicates that the internal consistency is unacceptable (SAIPRASERT, 2011).

3.10 Conclusion

In this chapter, the research was reasonable and got feedback from other parties, especially the inbound tourists from ASEAN countries who were the respondents of the research. The design of survey form and the method of data collection has been outlined in chapter 3. A pilot test has completed in order to examine the reliability of this survey. Sampling designs and research instrument have been identified for the survey form setting.

4.   Results and Discussion

4.1 Response rate

In this study, the respondents were selected in the medical tourism sector, Kuala Lumpur, Malaysia. The population was target 12,435 medical tourists in Malaysia. According to sample size by Krejcie and Morgan (1970), the researcher able to collect 240 questionnaires from the respondents out of 384. Therefore, the rate of response was 62.5%.

4.2 Reliability and validity analysis

In this research, a reliability test is used to examine the measurement of consistency and reliability of the study and results. Cronbach's alpha (α) is the most well-known tool used to examine the internal consistency reliability test. Cronbach's Alpha is chosen by the researcher used to test the coefficients' reliability of both pilot test and actual study. The range of Cronbach's alpha will be lied on 0 to 1.

(a) Pilot Test

To conduct the pilot test in this study, the total of 30 questionnaires were employed and randomly distributed from the research sample size. The reliability of Cronbach's Alpha for satisfaction level of medical tourist is 0.757, the independent variable of this survey such as cost, quality, facility, service and environment of medical care will be 0.858. Besides, the overall reliability test result was between 0.7 and 0.9 showing that the good reliability and validity scale, as well as the dependent variable and independent variables showed excellent reliability and validity scale based on the reliability test result, was more than 0.7.

(b) Actual Test

Table 1: Reliability of actual test result

Variables	N of items	Cronbach's Alpha of Actual Test (N=240)
Dependent variable		
Satisfaction of medical tourist	5	0.823
Independent variables		
Cost	20	0.703
Quality		
Facility		
Service		
Environment		

The results of the reliability test of the actual study are shown in Table 1. The total of 240 medical tourist in Malaysia was responded. The reliability of Cronbach's Alpha for satisfaction level of medical tourist is 0.823, the dependent variable such as cost, quality, facility, service and environment obtained 0.703. Moreover, the overall reliability test result was between 0.7 and 0.8 showing the acceptable

reliability and validity scale, as well as satisfaction level of medical tourist, show good reliability and validity scale based on the reliability test result was more than 0.8 between 0.9 (Rahman, 2019).

4.4 Demographic analysis

The questions are about gender, current employment status, nationality, number of times visit to Malaysia, types of medical care that received in Malaysia and the duration that takes to decide to visit in Malaysia. The percentage of the male is 33.8% which is 81 respondents and 66.3% female respond.

In addition, respondent who below 20 years old and from 20 to 39 years old are 5 and 90 persons respectively. The frequency of the respondents who are from 40 to 59 years old is 99 respondents (41.3%), the number of respondents who are 60 years old and above is 46 respondents (19.2%).

The frequency of student is 42 respondents (17.5%), the workers are 113 respondents (47.1%), housewife respondents are 43 respondents (17.9%) and the retiree is 42 respondents. From 240 responses, 29 respondents are Bruneian while 39 respondents are Cambodian. 31 respondents out of 240 responses are Indonesian with 12.9%, 17 medical tourist (7.1%) came from Laos and Myanmar respectively. Besides, 35 respondents are coming from Philippines and 31 respondents which covered 12.9% are Singaporean. 26 Thailand respondents and 15 Vietnam respondents assist me in filling out this survey form.

The frequency of the number of times visit in Malaysia has been classified into first time, 2 to 3 times, 4 times and above which including their current trip. For first time visitor, it having 67 respondent which is 27.9%%, experience 2 to 3 times visit in Malaysia have 102 respondent which is 42.5% and 4 times and above is 71 respondents which is 29.6%. In the aspect of types of medical care, dental surgery or treatment have 44 respondents with 18.3% while cosmetic surgery has 30 respondents with 12.5%. There are 37 respondents who received sight treatment and Lasik in Malaysia while 60 respondents came for heart surgery. 27 of respondents out of 240 persons came for medical check-up and 42 respondents are filled up with other.

There are 46 respondents (19.2%) take less than a week to make the decision to visit in Malaysia. 100 respondents (41.7%) take 1 to 3 weeks while 73 respondents (30.4%) take 4 to 7 weeks. 19 respondents out of 240 take more than 8 weeks to decide their medical trip in Malaysia and 2 respondents (o.8%) filled up with other because they take almost a year to make this decision.

4.5 Demographic analysis

The characteristics of individual variable are examined using descriptive analysis. As a result, the researcher used the data acquired in this study to define the mean and standard deviation of the researched variables. Furthermore, this technique is the most effective way to measure the digital transformation and employee engagement by discriminating for each part in the mean distribution using a 5-point Likert Scale.

(a) Descriptive data of cost of medical care

The highest mean is low cost of accommodations, treatment and product which is 4.65 and the standard deviation is 0.609 based on table 4.5. The lowest mean is offering worth and good package of medical service which is 3.94 and the standard deviation is 0.738. The overall mean has a high central tendency level.

(b) Descriptive data of quality of medical care

The highest mean is the ability to provide variety of food and beverages to fulfil the needs of patients, which is 4.26 and the standard deviation is 0.660. The lowest mean of the quality of medical care is doctors are reliability and empathy in Malaysia which is 4.03 and the standard deviation is 0.690. The overall mean of the quality of medical care has a high central tendency level.

(c) Descriptive data of facility of medical care

The highest mean of facility of medical care are convenient communication facilities and deluxe and comfortable accommodations for special needs patients, which is 4.27 and the standard deviation is 0.713 and 0.724 respectively. The lowest means of the facility of medical care is medical center's facilities are conveniently located and easy to find, which is 4.15 and the standard deviation is 0.743. The overall mean of the quality of medical care has a high central tendency level.

(d) Descriptive data of service of medical care

The highest mean of service of medical care is shorter waiting time for medical service, which is 4.22 and the standard deviation is 0.717. The lowest mean is convenient of transportation arrangement which is 4.16 and standard deviation is 0.697. The overall mean of the quality of medical care has a high central tendency level.

(e) Descriptive data of environment of medical care

The highest mean of environment of medical care is less noisy in the area of medical center, which is 4.27 and the standard deviation is 0.675. The lowest mean of environment of medical care is personal safety and security, which is 4.17 and standard deviation is 0.701. The overall mean of the quality of medical care has a high central tendency level.

(f) Descriptive data of satisfaction level of medical care

The highest mean of environment of medical care is less noisy in the area of medical center, which is 4.27 and the standard deviation is 0.675. The lowest mean of environment of medical care is personal safety and security, which is 4.17 and standard deviation is 0.701. The overall mean of the quality of medical care has a high central tendency level.

(g) The overall of descriptive analysis data

The overall value of the mean and standard deviation of satisfaction level of medical tourist is 4.2242 and 0.29600.

4.6 Normality Test

Kolmogorov-Smirnov and Shapiro-Wilk are the two kinds of tests that can be used for the normality test in this study. If the probability is greater than 0.05 ($p > 0.05$), the data is normal, and if the probability is less than 0.05 ($p < 0.05$), the data is abnormal (Kozak & Rimmington, 2000).

4.7 Correlation analysis

It shows that the Spearman's correlation coefficient between cost of medical tourist and satisfaction level of medical tourist is 0.397, which is statistically significant. Moreover, Spearman's correlation coefficient between the quality of medical tourist and satisfaction level of medical tourist is 0.452, which is statistically significant. The Spearman's correlation coefficient between the facility of medical tourist and satisfaction level of medical tourist is 0.453, which is statistically significant. In addition, Spearman's correlation coefficient between service of medical tourist and satisfaction level of medical tourist is 0.351, which is statistically significant and Spearman's correlation coefficient between environment of medical tourist and satisfaction level of medical tourist is 0.429 and that is statistically significant.

(a) Descriptive data of cost of medical care

The equation obtained is y=0.397x+2.559 and when x increases by 1, y will increase by 2.956. The regression line shows the positive relationship between cost of medical care and satisfaction level of medical tourist.

(b) Descriptive data of quality of medical care

The equation obtained is y=0.374x+2.662 and when x increases by 1, y will increase by 3.036. The regression line shows the positive relationship between quality of medical care and satisfaction level of medical tourist

(c) Descriptive data of facility of medical care

The equation obtained is y=0.38x+2.623 and when x increases by 1, y will increase by 3.003. The regression line shows the positive relationship between facility of medical care and satisfaction level of medical tourist.

(d) Descriptive data of service of medical care

The equation obtained is y=0.305x+2.946 and when x increases by 1, y will increase by 3.251. The regression line shows the positive relationship between service of medical care and satisfaction level of medical tourist.

(e) Descriptive data of environment of medical care

The equation obtained is y=0.371x+2.661 and when x increases by 1, y will increase by 3.032. The regression line shows the positive relationship between environment of medical care and satisfaction level of medical tourist.

4.8 Result of hypothesis

The correlation analysis shows that there is a moderate correlation coefficient. This shows the relationship between satisfaction level of medical tourist and factors that influencing the satisfaction level of medical tourist. Therefore, hypothesis of H1 is supported and it is found that there is a positive correlation between satisfaction level of medical tourist and factors that influencing the satisfaction level of medical tourist.

5. Conclusion

5.1 Overall summary

The target respondents of this study are the ASEAN inbound medical tourists in Kuala Lumpur. The actual sample size was 384 respondents. However, only 240 respondents are willing to participate in the research and answer the questionnaire to determine the factors influencing satisfaction level of medical tourist in Malaysia. The questionnaire is composed of three parts, namely, Part A (demographic statistics), Part B (factors affecting the satisfaction of medical tourist) and Part C (satisfaction of medical tourist).

5.2 Summary based on research questions

(a) Research objective 1

There are five factors with 25 items in Part B of the questionnaire which are cost, quality, facility, service and environment of medical care. Cost of medical care obtained a total mean value of 20.97, quality of medical care had a total mean of 20.88, facility of medical care had the total mean value of 21.08, service of medical care obtained a total mean value of 20.95. In addition, environment of medical care had 21.09 total mean value.

(b) Research objective 2

According to the calculation and research, it is expected that as the year increases, the number of medical tourists expected increases. Satisfaction level of medical tourist obtained the mean total mean of 21.12. Hence, government, travel institution and other related agency should plan and make

preparation to serve medical tourists from ASEAN countries such as Philippines, Thailand, Singapore, etc.

(c) Research objective 3

By using Spearman's rho, the correlation coefficient between cost of medical care and satisfaction level of medical care is 0.397, the correlation coefficient between quality of medical care and satisfaction level of medical care is 0.452, the correlation coefficient between facility of medical care and satisfaction level of medical care is 0.453, the correlation coefficient between service of medical care and satisfaction level of medical care is 0.351 and the correlation coefficient between environment of medical care and satisfaction level of medical care is 0.429.

5.3 Limitation of research

Researcher encountered difficulties in the process of data collection. The researcher was difficult to collect the questionnaire from the respondents because most respondents thinks that it was a waste of time. In addition, due to the limitation of time, the researcher was only able to visit four hospitals located in Kuala Lumpur, Malaysia to collect the data and e-mail to 18 hospitals or medical centers(Guiry *et al*., 2013).

5.4 Limitation of research

(a) Recommendations for government

Government usually plays an important role in sustaining and improving this sector. The uniqueness and indices of Malaysia showed that our country has favourable facilities, environment, high quality, low cost and excellent service of medical care for ASEAN inbound medical tourists. Hence, the government of Malaysia should strengthen the relationships with the medical tourists from ASEAN countries as medical tourism will be Malaysian next engine for upcoming economic growth (Hanafiah Juni & Abdul Manaf, 2018).

(b) Recommendations for future researchers

In the future research of medical tourist, the improvement suggestions are put forward to related research. Future research should be conducted with a more diversified and larger sample size. The research paper that will conducted in future can be completed with pre- and post-data of the respondents. Furthermore, the future can also be carried out in a qualitative method because when interviewing the target respondents, the data can be more accurate as compared to quantitative method (Collins *et al*., 2019).

5.5 Conclusion

In conclusion, this research has been conducted to determine the dominant factor to attract ASEAN inbound medical tourist visits Malaysia for medical service. The developed research questions and objectives have been achieved after all the research process went through. Based on the findings, the dominant factor that influencing the satisfaction level of medical tourist is environment of medical care. Specifically, decision of medical tourists when choosing a country destination to travel will depend on different kinds of perception and dimensions (Lianto *et al*., 2020). Last but not least, the results obtained have been analyzed and discussed in a further way. All of these results should be able to provide some important sources to the concerned party such as Ministry of Tourism, medical centers, government hospitals, private hospitals and travel agencies in order to sustain and improve the medical tourism sector in Malaysia. Hence, suggestions for future studies have been proposed to improve the reliability and validity of the collected data.

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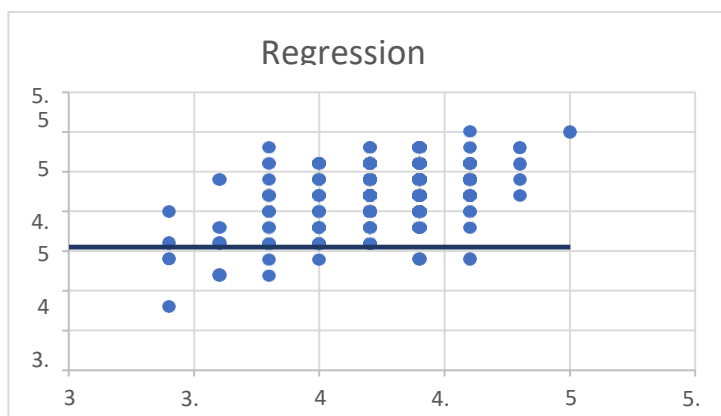
Appendix A

Linear regression line (cost of medical care and satisfaction level of medical tourist
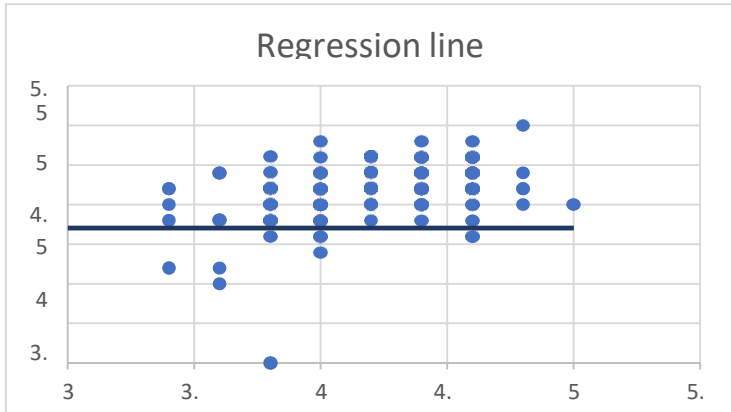
Linear regression line (quality of medical care and satisfaction level of medical tourist)
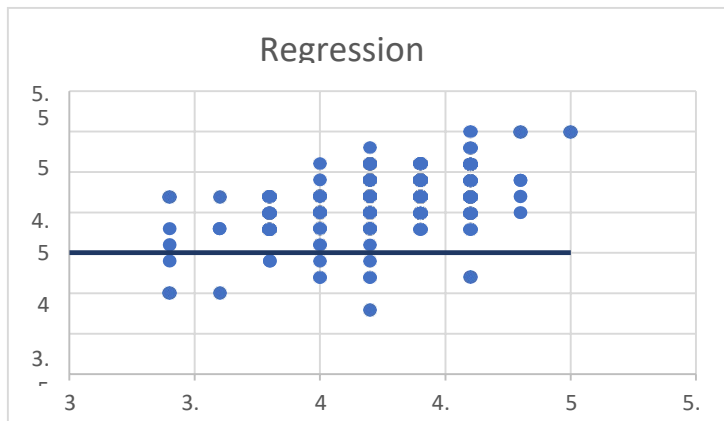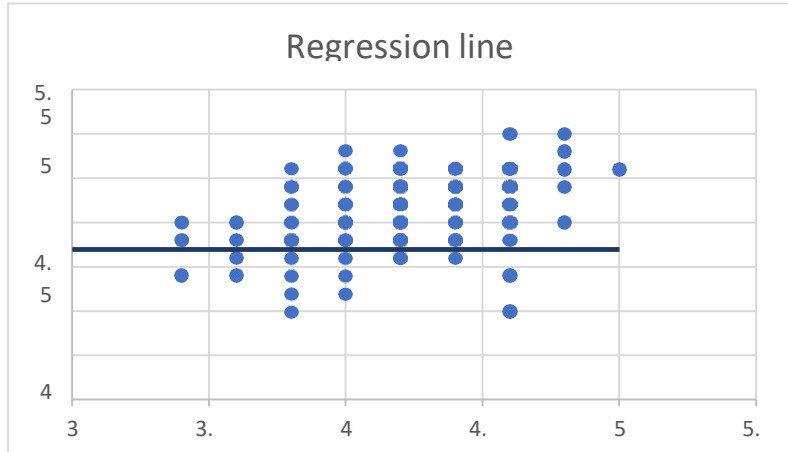

Linear regression line (facility of medical care and satisfaction level of medical tourist)

Linear regression line (service of medical care and satisfaction level of medical tourist)

Linear regression line (environment of medical tourist)