medical tourism

by Widjojo Suprapto

THE ANALYSIS FACTOR OF MEDICAL TOURISM IN SINGAPORE

Abstract – Indonesian citizens have spent US $11.5 billion for medical treatment services abroad. Singapore is one of the favorite countries of medical tourism for Indonesian people. This research aims at analyzing the attraction factors of medical tourism in Singapore. There are 100 respondents visited Singapore to do medical tourism. The retrieved data is processed using CFA (confirmatory analysis factor) method. The result shows that there are 5 main factors that makes Singapore becoming the attraction, they are atmosphere and medical accuracy, competency and price, facilities, customer satisfaction, entertainment.

Keywords: factor analysis, Singapore, medical tourism

INTRODUCTION

Traveling abroad for medical care to various international locations is common and not new phenomena. Nowadays, medical tourism has become a big interest value in a new tourism category (Sultana, Haque, Momen, & Yasmin, 2014). Medical tourism has become a choice to do medical care and it grows rapidly. These phenomena are a combination between medical activities and tourism that gives positive influences for the investment of the economy and health in a country. It contributes in the employment, foreign exchange earnings, infrastructure, health and quality standard of the destination country. Some countries all over the world start to promote the medical tourism to get the benefits (Zuhri, Suhenrianto, & Sentia, 2015).

Sultana et al. (2014) add that the medical tourism is a complex idea. This includes the good quality of medical care services, and some other supporting facilities, such as a decent accommodation, shopping center, and even recreation setting. The phenomena is that the people of the developed and developing countries visit the destination country for medical purposes. The medical tourism destination is not always in the western or European countries. The main reason for this is the long waiting time to obtain a visa for medical services in most western countries. At the same time, the expenses are expensive and often not covered by insurance. The countries in Asia attracts more visitors than the other destinations because the price is lower than the United States or European countries. Most of Asian countries have lower labor costs. The medical travelers or international customers can save 40% to 60% of their medical expenses.

Ganguli and Ebrahim (2016) explain that medical tourism refers to tourism practice to get health care facility. About 50 countries officially state that medical tourism is as their national industry. Medical tourism helps to build world peace and better understanding between developing countries, because tourism is the best way to communicate. Some college student volunteers, researchers and medical trainees from developed countries help to work in the third world countries.

The general procedures of medical tourism are, firstly, the individual who wants to do medical care abroad contact the medical tourism service provider. The provider will ask for the details of the patient such as medical report, symptoms, medical records, diagnosis, local doctor's opinion and the other relevant information. If the review has been done, the procedure will be continued by the doctor or certified medical consultant that gives information to the patient about the medical care. The finance determines the patient in choosing the designated hospital and it also determines how long to stay. The patient who signs the agreement will get a recommendation letter for a medical visa issued by the related embassy. If the requirements and formality have been completed, it will be continued by visiting the destination country. The hospital will take care of all the patient needs from accommodation, treatment or even post medical care. After the treatment, the patient will go back to the home country. Regularly, the patient can go back to the destination country for some post treatment cares (Banerjee, Nath, Dey, & Eto, p. 114–115, 2015).

According to the Laws of Republic Indonesia number 36 year 2009 about health, it explains that health care consists of some types; preventive, curative and rehabilitative. Preventive health care is an activity to prevent a problem or illness. This preventive action examples are vaccine, consultation of lifestyle to reduce health risk, unlike curative health that aims to treat illness. Curative health care is an activity and/or a series of treatment activities that aims at healing, suffer reducing, disability controlling to make the quality of life of the patient is optimally maintained. Medical check-up activity is categorized in both depending on the purpose. If the patient wants to know the health profile, it is categorized as preventive. If the patient wants to analyze the health profile for diagnostic considerations, it is categorized as curative. In the medical tourism, both treatments are common. For rehabilitative care, it is also possible, for example providing a rehabilitative care for such patient as drug addicts.

In the journal of Horowitz and Rosensweig (2008), they state that medical tourism is a trend growing rapidly where patients from industrial countries looking for health care in developed countries through the service offered by the community of the countries. The medical tourism definition sometimes is used in referencing all medical care, and it is believed that these phenomena is different than the traditional international medical traveling. In the traditional model, the patient of developing countries country goes to the main medical centers of developed countries for advanced medical care. This is encouraged by some helps of organized treatment system and makes the medical tourism rapidly growing for patient medical care.

The rapid growth of medical tourism industry is of the escalating demands of lifestyle changes which cause various lifestyle related illness. Some countries like Thailand, Singapore and India has been the three leading

countries of medical tourism industry, which they are predicted to control medical treatment industries in Asia about 80% in the future (Ganguli & Ebrahim, 2016). The growth of medical tourism is reported of 20% increases per year.

For European markets, the medical tourism activity is dominated by Canada, England and Israel. Index shows that the number is not much different from Singapore and India, which are the destinations for Asian countries. Southeast Asia is the center of the industry growth of Asia. Thailand records 1.28 million foreign patients visiting hospitals to receive medical treatment. Malaysia also records the number of foreign patients increasing three times during 2001-2006. In Singapore about 410,000 foreign visitors come to do treatment. Ormond and Sulianti (2014) explains that the phenomenon of Southeast Asia rapid growth in medical tourism industry is because of the significant growth in infrastructure and the high investment of the country. The development in technology and communication give access to health and logistics activity. The rapid growth in medical tourism industry has been a catalyst that increases global economy growth in Asia.

For Southeast Asia markets, Singapore and Malaysia have been the most popular medical tourism destinations. Ganguli and Ebrahim (2016) state that Singapore income from medical tourism industry is estimated about US $1.6 billion in 2016, 13.6% from CAGR. The high income streams from the Southeast Asia medical tourism industry, Indonesia contributes a lot for this. Indonesian petients spend US $11.5 billion for medical treatment abroad. Kompas newspaper reports in 2018, 1.7 million Indonesian patients do medical treatment abroad. It is estimated that Indonesia accounted for foreign exchange about US $100 trillion per year for the high number of Indonesian travelling to do medical tourism abroad. Another finding, the number of Indonesian travelling to Penang for medical reasons is 500.000 people per year and it will continue to grow (Fatia, 2018).

Petriella (2018) also adds that World Bank data shows that Indonesian people choose to do medical treatment abroad, it is twice more to Singapore than Malaysia. They have a tendency to choose Singapore because it has more attraction values, whether it is medical or tourism. Singapore and Malaysia are the main destination at the moment for Indonesian people to do their medical treatment and traveling abroad.

Ganguli and Ebrahim (2016) explain that the attractions of medical tourism in Singapore have some factors. Service is one of the factors Indonesian travelers look for in Singapore. Some simple procedures and special complicated surgery such as cardiac surgery, dental surgery, joint replacement (knee/hip) and cosmetic surgery are the next factors. Various health care, including alternative treatment, psychiatric, recovery and even funeral service are also available. The government of Singapore sets some strategies to increase the country's foreign exchange from medical tourism sector. One strategy is called seven pillars that consists of seven main points as a drive to stimulate the sector. This strategy is built to increase the attraction of medical tourism by increasing tourism locations and supporting infrastructure.

Singapore is a city country with a small population, so it is possible to determine the implementing of the cost for individual and corporate medical treatment. The government targets to invite one million medical tourists. In 2012, there are 850,000 medical tourists as reported by Singapore Tourism Board and it has been evaluated critically by the medical tourism organization. IMTJ (International Medical Treatment Journal) argues that the number includes the members of the family and local expats, therefore, it's only about 200,000 of the patients and 47% is from Indonesia and 12% is from Malaysia.

Singapore Department of Health builds Singapore Medicine, industrial partnerships with the government in 2003. This purpose is to increase industrial medical tourism and to strengthen the image of the medical center of Asia. The strategy of Singapore medical tourism is built on the high quality, trustworthy, and 21 accredited hospitals have joined JCI (Join Commission International). Singapore puts the efforts to provide health systems and facilities for its citizens, such as providing the most sophisticated high-end diagnostic equipment available in the market.

Widely spoken English, clean and safe neighborhood, and a stable political situation attract medical tourists to Singapore. This condition gives benefits to international patients, but the excessive dependency on foreign doctors will become a threat when the doctors go back to the home country or move to another place because of social and economic reasons (Ganguli and Ebrahim, 2016).

Sultana et al. (2014) describe that there are 4 main factors shaping the medical tourism attraction in Singapore. The first factor is Destination Competitiveness, which includes climate, environment, flora and fauna, health area and medical care, heritage or historical attractions, events, transportation, government policy, the quality of actual management and skill of workers. A good location is also considered as the Destination Competitiveness.

The second factor is Service Quality that covers Reliability, Tangibility, Empathy, Responsiveness, and Assurance. The destination country is required to provide the medical tourists with good quality of service and performance. Service quality is also proved to become the strong competitive factor that attracts tourists, including for the medical care. The quality of service organization is more than just the application of the mere management quality to all the organizations.
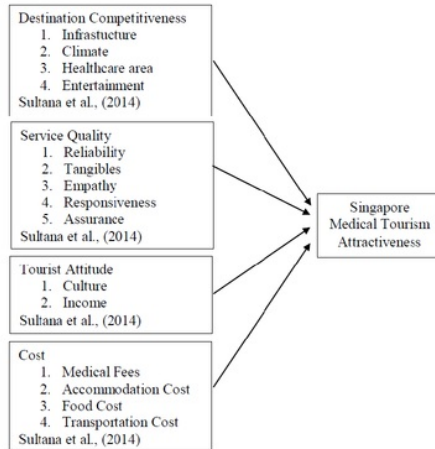
The third factor is Tourist Attitude that is the culture of the destination country, manners or social norms used by the destination country, and the language as the consideration of the medical tourists. Income also influences the attraction of medical tourism in Singapore.

The fourth factor is Cost. Consumers are sensitive about product or service costs. This condition is applicable to all customers especially the price sensitive ones. The price of each product or service is a key element to determine customer satisfaction. Medical fees, accommodation cost, food cost and transportation cost is also in this fourth factor.

The number of Indonesian citizens doing medical tourism in Singapore is relatively high as Singapore keeps on

offering new development on general infrastuctures and tourist attractions. The high number of medical tourism from overseas rises the topic about how Singapore offers and develops medical tourism as a mainstream of foreign exchange income. This is the main reason in this research to analyze the factors that attract the medical tourism in Singapore for Indonesian markets.

Research Framework

Destination Competitiveness
1. Infrastucture
2. Climate
3. Healthcare area
4. Entertainment
Sultana et al., (2014)

Service Quality
1. Reliability
2. Tangibles
3. Empathy
4. Responsiveness
5. Assurance
Sultana et al., (2014)

Tourist Attitude
1. Culture
2. Income
Sultana et al., (2014)

Cost
1. Medical Fees
2. Accommodation Cost
3. Food Cost
4. Transportation Cost
Sultana et al., (2014)

Singapore Medical Tourism Attractiveness

RESEARCH METHOD

The type of this research is quantitative. This research uses quantitative analysis in identifying the factors of consumer decision in choosing Singapore as the medical destination. The population of this research is all Indonesian consumers that has done medical tourism to Singapore. From the population, the sample is drawn with such criteria as the age of 17 and above, visiting Singapore at least two times for medical purposes, and intending to another medical and pleasure tourism in the near future. In this research, minimum samples are 96 respondents. The data are collected from the respondents using some questionnaires which are constructed using Likert scales of five levels from strongly disagree to strongly agree. Then, the data are processed to obtain their descriptive statistics. Descriptive statistics is a statistic that has function to describe or give descriptions to the object of the research through sample data or population as it is, without analyzing and concluding that applies to the public. Descriptive statistics used in this research are minimum value, maximum value and average value. The data analysis method for this research is factor analysis method.

ANALYSIS AND DISCUSSION

Descriptive Mean Analysis
Descriptive mean analysis aims to describe or depict data in a frequency table. Table 1 shows the result of motivation to conduct medical tourism in Singapore.

Table 1
The Result of Mean Motivation (X_1)

Factor	Statement	Mean	SD
F1	In my opinion, access to medical treatment area and tour area are easy	3.82	.80
F2	In my opinion, the public transportation is fast	3.90	.83
F3	In my opinion, the weather is the same, so no need to adapt	4.08	.72
F4	In my opinion, the medical treatment center is easy to find the address	4.04	.83
F5	In my opinion, medical treatment area is close to various tour attractions	3.94	.88
F6	In my opinion, Singapore provides many entertainment places around the medical treatment location such as amusement park, food center and mall	3.94	.87
F7	In my opinion, Singapore offers many attractions such as festivals or performances	3.86	.89
F8	In my opinion, medical treatment system gives accurate illness diagnostic	4.00	.86
F9	In my opinion, the medical treatment has high success level	4.05	.74
F10	In my opinion, the medical tools and equipment are modern and comprehensive	4.17	.73

F11	In my opinion, the rooms and buildings is nicer	4.09	.75
F12	In my opinion, medical professionals in Singapore seriously listen to patient's complaints thoroughly	4.14	.77
F13	In my opinion, medical workers in Singapore has high skills	4.29	.75
F14	In my opinion, Singapore uses international language to make it easier for tourists	4.10	.70
F15	In my opinion, Singapore has the same cultural mannerism more or less	4.27	.73
F16	In my opinion, consumers who do medical tourism to Singapore have high income	4.15	.80
F17	In my opinion, Singapore provides optional payments with insurance	4.05	.82
F18	In my opinion, medical treatment in Singapore is as good as the quality of the treatment received	3.93	.80
F19	In my opinion, there are some optional prices for the types of accommodation	4.12	.80
F20	In my opinion, public transportation is as good as the quality of the transportation itself	4.12	.70
F21	In my opinion, the food price in Singapore is various	4.16	.70

Total		4.05	.42

The result of the analysis shows that, based on the Confirmatory Analysis Factor method, there are five main factors recognized to form the attractions of medical tourism in Singapore.

Table 2
Rotated Component Matrix

	Component				
	1	2	3	4	5
F1	.460	.143	-.014	-.013	**.598**
F2	**.526**	-.040	.025	.157	.322
F3	**.688**	.024	.036	.284	.042
F4	**.775**	.138	.150	-.041	-.031
F5	787	.067	.026	.006	.233
F6	**.808**	-.014	.132	-.061	.039
F7	.322	.091	.226	.131	**.689**
F8	**.538**	.116	.280	.042	.390
F9	.231	.374	**.490**	.211	.087
F10	.332	.058	.123	**.526**	.307
F11	.125	.072	**.906**	.154	.145
F12	.061	.272	.195	**.887**	.088
F13	.060	**.560**	.241	.198	.414
F14	-.002	.360	.245	.073	**.532**
F15	.044	**.477**	.457	.218	.136
F16	.049	**.593**	.056	.212	.206
F17	-.044	**.699**	-.077	.051	.287
F18	.119	**.783**	.069	-.034	.015
F19	.060	**.749**	.161	.287	-.291
F20	.139	.024	**.909**	.101	.123
F21	-.030	.202	.156	**.910**	-.018

Discussion
Table 3
New Factor Naming

Factor	Element	Factor Statement
1	*Atmosphere & Medical Accuracy*	1. In my opinion, the public transportation

#	Factor	Items
		is fast to visit a wanted place
		2. In my opinion, the weather is the same, so no need to adapt
		3. In my opinion, medical treatment area is close to various tour attractions
		4. In my opinion, Singapore provides many entertainment places around the medical treatment location such as amusement park, food center and mall
		5. In my opinion, medical treatment system gives accurate illness diagnostic
2	*Competency & Price*	1. In my opinion, medical workers in Singapore has high skills
		2. In my opinion, Singapore has the same cultural mannerism more or less
		3. In my opinion, consumers who do medical tourism to Singapore have high income
		4. In my opinion, Singapore provides optional payments with insurance
		5. In my opinion, medical treatment in Singapore is as good as the quality of the treatment received
		6. In my opinion, there are some optional prices for the types of accommodation
3	*Facility*	1. In my opinion, the medical treatment has high success level
		2. In my opinion, the rooms and buildings is nicer
		3. In my opinion, public transportation is as good as the quality of the transportation itself (cheap, fast, safe and clean)
4	*Customer satisfaction*	1. In my opinion, the medical tools and equipment are modern and comprehensive
		2. In my opinion, medical professionals in Singapore seriously listen to patient's complaints thoroughly
		3. In my opinion, the food price in Singapore is various
5	*Entertainment*	1. In my opinion, access to medical treatment area and tour area are easy
		2. In my opinion, Singapore offers many attractions such as festivals or performances
		3. In my opinion, Singapore uses international language to make it easier for tourists

Factor 1 is shaped from a combination of factors that reflects the fast public transportation to the destination, the same weather condition from the origin country that no need to adapt, medical treatment center easy to find, medical treatment area located near to various tourist attractions, many entertainment places around the medical treatment location such as amusement park, food center and mall, medical treatment system giving accurate illness diagnostics. In this case, factor 1 describes the ease that the visitors feel to use public facilities, the friendly weather, easy to find location, and location near to attractions. Factor 1 is related to the medical treatment description in general because it represents both medical and tourism needs at the same time. Based on the explanation above, factor 1 is named Atmosphere and Medical Accuracy.

Factor 2 is shaped from element factors that reflect the medical workers in Singapore having higher skills, the same cultural mannerisms more or less, high income to afford the treatment, insurance payment option for medical cost, the price as good as the quality, and various accommodations with many price ranges choices. The second factor is related to the same mannerism both countries and the readiness described in the income level or insurance support. Based on the descriptions above, factor 2 is named Competency & Price.

Factor 3 reflects the respondents' confidence about the high success rates of medical treatment in Singapore, the nicer building, the good quality of the public transport (cheap, fast, safe and clean). Factor 3 is related to the attraction of medical treatment offered by the Singapore government where the success rates of the medical treatment is high by the support of government to provide good buildings

and public transportation facilities. From the descriptions, factor 3 is named Facilities factor.

Factor 4 reflects the consumers' view that the tools and the equipment available in Singapore are sophisticated and comprehensive, the medical professionals listen to the patient's condition thoroughly, and the food prices in Singapore is various. Factor 4 reflects the professionalism of the workers and the equipment owned in Singapore. It is clear that the respondents travel to Singapore for medical treatment in hoping the quality of the better workers and equipment compared to Indonesia. Factor 4 is named Customer Satisfaction.

Factor 5 is reflecting the merging factors related to the ease of access to medical treatment and tourist attraction areas, entertaining festivals and performances, and the international language that make it easy for tourists to visit. Factor 5 reflects the general factors that attract tourists to Singapore, on the medical side is determined from road access. Eventually, factor 5 is named Entertainment.

CONCLUSION

This research concludes from the result of analysis and discussion as follows:

1. From total 21 factors estimated to be the medical treatment attractions in Singapore, all are reduced to five main factors: Atmosphere and Medical Accuracy, Competency and Price, Facilities, Customer satisfaction, and Entertainment.

2. The Atmosphere and Medical Accuracy Factor is a combination element statements of the public transportation, the weather, the medical treatment area, the entertainment places, and the medical treatment accuracy.

3. The Competency and Price Factor is a combination element statements of high skillful medical workers, the same cultural mannerism, the high income consumers, the optional payment with insurance, the quality medical treatment reflected in the price, and the wide range hotel types.

4. The Facilities factor is a combination element statements of highly successful medical treatment, the facilities, the public transportation

5. The Customer Satisfaction is a combination element statements of modern and comprehensive medical equipments, professional medical workers, and various food prices.

6. The Entertainment factor is a combination element statements of accessibility to medical treatment area, many tourist attractions, and several international languages spoken by the local.

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