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Profiling Indonesian Medical Tourists: A Motivation-Based Segmentation Study

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ABSTRACT

In the past few decades, the number of Indonesians who travel abroad for medical tourism continues to increase dramatically. The purpose of this study was to portray Indonesian medical tourist segments by identifying their travel motivation using the constructs of push and pull travel motivation. Exploratory factor analysis and cluster analysis techniques were applied to analyse the data. The results of this study revealed four push motivation factors and three pull motivation factors. Based on these push and pull factors, three different medical tourist clusters were identified as follows: enhancement seeker, assurance seeker, and opportunity seeker medical tourists.

ABSTRAK

Dalam beberapa dekade terakhir, jumlah masyarakat Indonesia yang berwisata medis ke luar negeri terus meningkat. Penelitian ini bertujuan untuk mengidentifikasi faktor motivasi pendorong dan penarik wisatawan medis Indonesia untuk berwisata medis ke luar negeri. Selain itu, penelitian ini memetakan para wisatawan menjadi segmen-segmen berdasarkan motivasi untuk berwisata medis. Analisa faktor dan analisa klaster digunakan sebagai teknik statistik yang mengolah data untuk mencapai tujuan penelitian. Hasil penelitian mengungkap empat faktor motivasi pendorong, dan tiga faktor motivasi penarik untuk berwisata medis. Lebih lanjut penelitian ini menghasilkan tiga klaster wisatawan medis yaitu wisatawan medis pengikut tren, penuh pertimbangan, dan pencari kesempatan.

1. INTRODUCTION

Travelling abroad for medical treatment or health service purpose is known as medical tourism. According to Cohen (2008), medical tourism is defined as the activity of a person who travels to another town or country to receive health services while enjoying a vacation, or people who take the benefits while seeking medical treatment. Chairman of Indonesian Surgeon Congress, Dr. Paul Tahelele stated that around six hundred thousands middle to upper classes Indonesians have travelled overseas to seek medication (Dhae, 2014). Indonesia Services Dialog (ISD), an organization that provides a discussion forum about services sector in Indonesia, recorded that the number of Indonesia who seeks medication abroad experienced an increase of almost a hundred percent in the last ten years (Sulaeman, 2018). Data from iGATE RESEARCH, a marketing research company reveals five countries that are viewed as the most prominent medical tourism destinations in Asia, namely Singapore, Thailand, South Korea, Malaysia, and India. Indo-

nesian citizen is included in the top arrivals and spending in Singapore, South Korea, Malaysia, and India. Data from the National Health Care Group International Business DevUnit (NHG-IBDU) of Singapore shows that fifty percent of international patients who seek medication in Singapore are Indonesians (Sulaeman, 2018). A market analysis done by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) in 2007 illustrates that the majority of medical tourists in Malaysia also comes from Indonesia. Similarly, Frost and Sullivan show that in 2010, sixty nine percent of total medical tourists visiting Malaysia came from Indonesia. A study conducted by Yeoh, Othman and Ahmad (2012) found that seventy two point twenty one percent of international patients in Malaysia coming from Indonesia, and the majority has been seeking medical treatment in Malaysia before.

Review of the literature has indicated that research examining Indonesian's motivation to seek medical treatment and other medical services

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abroad is still rare. This research therefore tries to fill the research on this motivation by adopting the push and pull factors as its theoretical framework. According to Pesonen (2011), push factors are the intrinsic attributes that motivate tourists to travel, while pull factors are the destination attributes that decide the chosen travel destinations, based on how well-matched that destination attributes with the needs received from the push factors. Through push factors, we can identify what motivates the Indonesians to go and seek medical treatment abroad, while pull factors can give information on what attracts the Indonesian to seek various medical services in some destination countries. In addition to the identification of medical tourism motivation, profiling the tourists based on the motivation would be more comprehensive to understand Indonesian tourist behaviour. This segmentation aims to figure out the characteristics of each segment in order to help giving information to service providers to understand what their aimed market segment wants.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Medical Tourism

According to Cohen (2008), medical tourism is an activity that is done when someone wants to go to the other city or country to receive medical treatments while enjoying a vacation or someone who takes the opportunity while being treated. Gupta (2004) defined medical tourism as a medical treatment provided for a patient that collaborates with the tourism industry. This process is usually facilitated by the private medical treatment sector, by involving the private and public sector of the tourism industry. Medical tourists will get surgery or medical treatment while also get to live in one of the most popular tourist destinations in the world. Goeldner (1989) in Hall (2011) said that medical tourism can be defined as (1) going to a place that is far from home, (2) health as an important motive, (3) done with a way of vacation.

Connel (2013) explained that medical tourism is a common term used in many cases, in which improving the health condition is the main purpose of the trip. Medical tourism itself involves more invasive procedure and various medical checkups, than a passive procedure with methods like relaxation therapy. Therefore, medical tourism is more directed to treatments such as beauty surgery, heart surgery, and hip or knee replacement. Cormany and Baloglu (2011) also explained that medical tourism is a term used to show someone's cross-

border travel behaviour that needs big or small surgery, beauty care, and dental care. Preventive medical services like a medical checkup and health screening procedure are also included in medical tourism (Heung, Kucukusta & Song, 2011). This medical tourism concept is different from what is often referred to as wellness tourism. Mueller and Kaufmann (2001) defined wellness tourism as tourism that often includes service package offered by the tourism service provider which consists of comfortable accommodation, physical fitness centre, beauty treatment, healthy diet, relaxation, meditation, and other mental activities. So, it can be concluded that medical tourism is related to the treatment of physical health, while wellness tourism is related to mental health. This research will be aiming more to medical tourism, in which the tourists are really looking for medical treatment such as a medical checkup, health screening procedure, beauty surgery, dental care, health surgery, certain viruses' treatment, hip or knee replacement, and any other medical treatment process.

Travel Motivation

One of the most commonly used concepts in tourism research is motivation concept (John & Larke, 2016). Crompton (1979) also acknowledged that the understanding of motivation factors that influence travels does really help in understanding the behaviour of a tourist, and tourists' motivations cover a wide area and are well-proven in showing a correct and certain fact in the field of tourism research. Motivation is a pushing force inside an individual that pushes him/her to act. This pushing force is created by pressures that come from unfulfilled needs (Schiffman & Kanuk, 2007). Motivation can be considered as a selective and preferential aspect of certain behaviours, and motivation is responsible for the explanation of an individual's behaviours or actions (Lee, 2007).

Maslow's hierarchy of needs is the most commonly adopted motivation theory in the literature. According to Maslow (1970), motivation is defined as a 'reason' that underlies an act done by an individual. Maslow also states that an individual's motivation to do something can be divided into five levels based on their hierarchy of needs: physiological, safety, love and belonging, esteem, and self-actualization. While Maslow's theory contributes much to the motivation theory, in a tourism context, the push and pull factors motivation theory is the most commonly adopted theory to identify tourists' motivation. Push and pull motivation theory is the main concept in tourists' motivation liter-

ature (Pesonen, 2011). John and Larke (2016) contend that despite various theoretical perspective adopted to examine tourist motivation, the push and pull factors are still the core in tourism literature review.

Push and Pull Factors in Medical Tourism

To the authors' knowledge, there were three previous studies as references in analyzing the push factors in medical tourism (Laesser, 2011; Jananto & Roebianto, 2015; Khan, Chelliah, Haron & Ahmed, 2017). In Laesser's (2011) research, he found that the push factors in medical tourism could vary greatly, such as: want to treat and increase their beauty; enjoying the comforts; taking a break and relax; challenging and pushing themselves; to end a life phase; sparing some time for their own selves; actively moving; going out of their daily routine; seeing and experiencing something new; socializing with new people; adding new experiences; spending time with family; experiencing something new; and having a prestigious trip.

Different from Laesser's (2011) that was aiming more to the pushing force of the tourists' needs and desires, the research conducted by Khan et al. (2017) focused on tourists' feelings towards about what is available in their origin country, such as dissatisfaction with the treatment price, in which the treatment price is considered too expensive or what they get is not as expected before; lack of trust to the medical services, in which the trust factor for the available services is considered low so they want to search for other options; a past bad experience, giving a traumatic feeling and a feeling of refusal of getting the same experience again; and dissatisfaction with the type of available treatment, in which the available treatment's type is considered as not the most up to date and is incomplete. Further, Jananto and Roebianto (2015) explained that the push factors in medical tourism can come from two sources. The first is the social or external factor, in which the trend, prestige, public opinion, reference from relatives, and also the referral from the doctor and hospital in Indonesia affect a person's decision making to do medical tourism. The second one is from the internal factor that consists of medical treatment needs by the tourists, also the perception and expectation of the medical treatment of the destination country.

Moreover, many research has been completed in examining the pull factors that motivate travelers to take medical tourism (Musa et al., 2012; Jananto & Roebianto, 2015; Fetscherin & Stephano, 2015;

John & Larke, 2016). Musa et al.'s (2012) study research found that pull factors emerged were: 1) excellent medical service, including a good track record of the medical services, personal touch by the doctor, convenient clinic or hospital service hours, specialized customer service, leading medical services, various medical services are available, safety and security are guaranteed, popular destination for medical treatment, credit card payment facilities available; 2) value for money, including cutting-edge medical facilities, get the value for money from the medical treatment, modern medical treatment; 3) religious factor that is related to the availability of halal foods and the facilities offered for religious practice 4) cultural similarity that relates to the short distance from the origin country and similarity in food; and 5) supporting service, including good transportation services and the ease of immigration permit.

Similar to Musa et al. (2012), Jananto and Roebianto (2015) found that there were three pull factors in medical tourism namely: 1) medical attribute that refers to the sophisticated facilities and medical equipment, friendliness and professionalism of the doctors and paramedics, fast services process and medical treatment, a variety of the medical treatments are available and medical specialization in handling certain diseases; 2) practical consideration, including affordable accommodation, good facilities and infrastructure, easy to communicate with the doctors, paramedics and local citizens, the similarity of language and culture, and have a short distance to the origin country; and 3) leisure and entertainment, which include the availability of shopping centre, cultural site, restaurant, café, bar and other entertainment places.

Meanwhile, according to Fetscherin and Stephano (2015), pull factors of medical tourism revealed in their study were: 1) country environment, in which the destination country has a low level of corruption, has a similar culture and language with the origin country, the economy is relatively stable, safe for travelling, has a positive image and has a stable exchange rate; 2) tourism destination, in which the destination country is an interesting tourist destination, popular tourist destination, has many cultural or natural attractions, is an exotic tourist destination, and has comfortable weather; 3) medical tourism costs, includes low travel costs, low accommodation costs, low medical costs, affordable flight costs and low health care costs; and 4) facility and services, including quality medical care and materials, hospitals and medical

facilities with high standards, experienced doctors, trained doctors, doctors with international reputation, staff and doctors with international certification, medical facilities and hospitals with good health care indicators, the presence of doctors who will be recommended to family or friends, hospitals and leading medical facilities, friendly staff and doctors, overall have a positive image of medical tourism, known to has sophisticated medical equipment, hospitals and medical facilities that are internationally accredited, the existence of educated doctors internationally, there are hospitals and medical facilities that are recommended and have high quality in health care.

3. RESEARCH METHOD

This study applied a quantitative approach. The data were collected through survey employing a purposive sampling technique with these following sample criteria: 1) Indonesian citizen aged seventeen years old and over; 2) have undertaken medical tourism abroad in the last three years, and 3) a patient who involved in the decision making of the medical trip taken. In addition, snowball sampling was also applied, in which the researcher asked for recommendations from the selected samples. Data was analysed using multivariate analysis techniques of factor analysis and cluster analysis. The numbers of the sample in the multivariate analysis can be decided with a calculation of five to ten times of the variable numbers. In this research, there are twenty seven variables, which consist of eleven variables that represent the push factors in medical tourism and sixteen variables that represent the pull factors in medical tourism. Thus, the number of samples needed is around 135 to 270 participants.

The questionnaires were distributed both offline and online utilising Google form platform. The researcher also contacted the patient that has shared their experience of getting treatment abroad through Instagram and established a collaboration with tour and travel agency that offer medical tourism package and international hospital representative in Indonesia. Prior to the survey, a pilot study to 36 respondents was conducted to test the validity and reliability of the instrument. There were 207 respondents participated in the survey. After data cleaning there were 192 responses that could be used for further analysis.

4. DATA ANALYSIS AND DISCUSSION

Results

Data from 192 respondents shows that re-

spondents were dominated by female (61.5%) aged 21-40 years old (41.1%) and 41-60 years old (38.5%). The majority work as an entrepreneur (37.5%) and their average income per month is around IDR 20,000,000 (43.2%). The majority of respondents stated that the last time going abroad to do medical treatment is in 2018 (35.4%). However, the number is not too big compared to the respondents that did their medical treatment in 2019 (23.4%). Out of total respondents, 35.9% had travelled abroad more than three times to have medical treatment. Malaysia (45.8%) and Singapura (44.3%) were two major countries as the medical tourism destination. In terms of the medical treatment received, most respondents did medical check-up (48.1%), followed by internal disease surgery (20.3%), and other types of medical treatment such as, cancer, tumours and bones. In travelling for medical tourism, the majority of respondents were accompanied by their family (87.5%). Most of the respondents spent three to five days (57.3%) in the destination country to receive medical treatments.

Insert Table 1 here

Factor Analysis

Exploratory factor analysis was employed to collect the information about the relationship between some of the push factors variables and the pull factors variables to do medical tourism abroad. There were 27 variables containing 11 push factors variables and 16 pull factors variables. The statistical analysis result shows that 27 variables were reduced and merged as 7 new factors, which are 4 pull factors and 3 push factors. The newly formed 4 push factors can explain 66% of the total variants (Table 2), while the 3 pull factors can explain 61% of the total variants (Table 3).

Insert Table 2 here

The first motivation push factor is "*Past Negative Experience*", which shows people's doubt in receiving medical treatments in Indonesia because of their past negative experience(s). The second factor is "*Health Reasons*" because in this factor, the creator indicator comes from the desire to check their health condition and receiving medical treatments. "*Social and Personal Self Fulfilment*" represents the third push factor where someone tries to fulfil their own personal desires by considering the

opinion as well as references and recommendation from their close ones. Meanwhile, the fourth push factor is named *“Convinced by the Experts”*, because in this factor the medical tourists have placed their trust on someone else who is an expert in his/her field, or someone who can be used as a reference that the medical tourist become convinced enough to do what he/she said.

Insert Table 3 here

In relation to pull motivation, the first factor emerged was named as *“Excellent Medical Facilities and Services”*. In this factor, the quality of all medical facilities and services become the attributes that make someone to be interested in having medical tourism. The second factor reflects the closeness and intimacy, whether in the distance, language, or culture, and thus the second factor is named *“Proximity and Similarity”*. The last pull factor, *“Supporting Facilities”*, is emerged as participants considered that along with prevalent medical treatment and hospital, the quality of facilities that are available in destination country, such as transportation access, accommodation services, and shopping centre, are also viewed as supporting facilities that could assist participants while their stay in the destination for the treatment.

Cluster Analysis

In this research, cluster analysis was completed after the calculation of exploratory factor analysis. There are four factors created from the push factor's indicators and three new factors from pull factor. Those seven factors become the segmentation base of medical tourism in Indonesia. After going through the processing and trial and error using K-Means cluster analysis with 192 respondents' data, the researcher decided that the division of medical tourism in Indonesia into three clusters has the most optimum result.

Table 4 shows the data from the three emerging clusters, which will then be named as *“Trend Follower Medical Tourists”* (n=83) with 44.2% of the total respondents, *“Medical Tourists Full of Considerations”* (n=60) with 31.3% of the total respondents, and *“Opportunist Medical Tourists”* (n=49) with 25.5% of the total respondents. Table 4 also explains the ANOVA result showing that the *“Excellent Medical Facilities and Services”* factor becomes the one with the highest value ($f = 130,895$). Meanwhile, the *“Proximity and Similarity”*

($f = 12,064$) and *“Health Reasons”* ($f = 12, 106$) factors become the two factors with the lowest value.

Insert Table 4 here

Cluster 1: Enhancement Seeker Medical Tourist

With *“Social and Self Fulfilment”* as the most influencing factor, the respondents of this cluster did a medical tour in order to fulfil and satisfy their own desire, where the *“Social and Self Fulfilment”* factor is shaped from the indicator of following the medical tour trend and want to make their appearance to be more attractive. Other than that, the members of this cluster also pay attention to how their closest ones see their status and appearance, supported by the indicator of recommendation and references from relatives, which in fact is something that influences the decision to take a medical tour abroad. The desire to enjoy their holiday while receiving medical treatment services has also become one of the aim of the first cluster's members, which can be shown through the *“Supporting Services”* factor, such as shopping centre and tourist attraction as well as sufficient transportation and accommodation, which become the second biggest factor in this cluster. Dominated by women, 21-40 of age who work as entrepreneurs and students with an average monthly income of less than IDR 20.000.000.

Cluster 2: Assurance Seeker Medical Tourist

This cluster consists of respondents who have had previous bad experiences in Indonesia which causes them to choose to do a medical trip abroad in order to receive more trusted medical services. This can be seen from the *“Past Negative Experience”* factor that becomes the biggest contributor in this cluster. The *“Excellent Medical Facilities and Services”* becomes a factor with the second-highest value, in which a close bond can be seen between the two factors. The members of this cluster go abroad purely to receive medication and medical treatment after receiving bad experience in Indonesia, the guarantee of receiving excellent medical facilities and services becomes very important. This cluster is dominated by 41-60 years old women. The majority of the members work as entrepreneurs with monthly income less than IDR 20.000.000. The members of this cluster tend to have their last trip in 2018 and 2019.

Cluster 3: Opportunity Seeker Medical Tourist

This cluster can be said to have varied respondents, from teenage to middle age, working as entrepreneurs, students, and even housewives. The majority of this cluster has only received medical treatment abroad once, thus it can be concluded that the members of this cluster are not required to be always receiving medical treatment abroad. The biggest factor in this cluster is "Proximity and Similarity", thus it can be said that the members of this cluster lack the desire and effort to adapt. The majority of destination country is Malaysia because it is not too far and have a lot of similarities with Indonesia. However, the value of the most dominant factor is smaller than the value of the most dominant ones in cluster one and two. The researcher suspects that there are other factors that are not included into seven factors that are formed in this research, such as the time of making a decision to receive medical treatment and medical tourism promotion package. This cluster is dominated by women, 20-40 and 41-60 of age who work as entrepreneurs, students, and housewives with monthly income less than IDR 20.000.000.

Discussion

Medical tourism has been growing rapidly, including in Indonesia. The number of Indonesian people travelling abroad for medical tourism purpose is still increasing, to reach almost hundred percent in the last 10 years (Sulaeman, 2018). Push and pull motivational factors drive an individual in taking particular tourism activities. According to Pesonen (2011), push factor is an intrinsic attribute that motivates tourist to go travelling, while pull factors is a destination attribute that decides the chosen tourist destination, based on how compatible the destination attribute with the needs from the push factors. In this study, push factors indicate the internal reason why participants choose to go and do medical treatment abroad whilst pull factors offer information about the destination attributes that are attractive in pulling the participants to select certain country instead of the others as the medical tourism destination.

Findings from the exploratory factor analysis has revealed four push factors and three pull factors that motivate the participants to do medical tourism. **Past Negative Experience** explains the push that comes from the bad experience of the medical tourists' relatives or even themselves when they received the medical treatment in Indonesia, the dissatisfaction of the price of medical services in

Indonesia, and also the lack of trust for the paramedic/hospital quality in Indonesia. This shows that there are still some negative points in the facility and medical treatment services in Indonesia that makes people choose to seek medical treatment abroad in order to get better and more reliable medical treatment services. This factor aligns with the research result from Khan et al. (2017), in which the past negative experience gives traumatic feeling and causes them to refuse to experience the same thing again. This factor also includes the feeling of dissatisfaction towards the medical treatment price, because the treatment price is considered too high or not in accordance with the obtained results. Further, **Health Reason** was emerged from the desire to know about the health condition and to do the medical treatment. These two motivations have the highest *mean* score in the respondents' answers results in this research. So, the factor of Health Reason can be considered to be strong enough to make Indonesian people choose to have a medical tour abroad. The creation of this factor is aligned with Laesser's (2011) research result and Jananto and Roebianto (2015) which says that the desire to treat the health and the needs of medical treatment are the factors that push tourists to do medical tours. Next is the **Social and Self Fulfilment** factor that shows trend and prestige as the reason to do medical tourism. Corresponding with the theory of Crompton (1979), Ryan (1991), also McIntosh (1977) and Murphy (1985), prestige is considered as the push factors in medical tourism in which vacation has already become the part of the higher lifestyle and can improve the status or social degree. Hence, following the trend to do medical tourism abroad also affects the decision of medical tourists in Indonesia. The desire is also made to make their self-appearance become more interesting in which it can make other people's opinion and viewpoints to them become better. Reference and recommendation become quite trusted and are two of the things that affect people to do medical tourism abroad. The research result of Laesser's (2011) and Jananto and Roebianto's (2015) studies also found the similar results as the push factors emerged in this study. That is, Laesser (2011) explained that there was a push to increase the self beauty and do a prestigious trip. Meanwhile, Jananto and Roebianto (2015), who also researched Indonesian people's motivation to do medical tourism, showed that there is a tendency that Indonesian people follow the trend to do medical tourism abroad. Relatives' reference is also considered as something that affects the decision to do medical tourism. The fourth

push factor is **Convinced by The Experts**, which explains that there are some medical treatment services that are yet to be available in Indonesia, either because the facilities and the sophisticated equipment are not yet available or because the experts that can give certain treatment care are not yet available. With the existing limitations, doctors and hospitals in Indonesia often give reference to the patients so they can get better medical treatment services. Therefore, doing medical treatment in the country that already has sophisticated and trusted facilities and medical personnel becomes the taken choice. Jananto and Roebianto (2015) and Khan et al. (2017) in their research explained that the reference from the doctors and hospitals the lack of medical services are summarized as the push factors in medical tourism. The results of push factors from this study is aligned with previous studies of Khan et al. (2017), Laesser (2011), and Jananto Roebianto (2015).

On the other hand, the pull factors of Indonesian people that attract medical tourism consist of "Excellent Medical Facilities and Service", "Proximity and Similarity", and "Supporting Services". These three pull factors that were created according to the previous researches from Musa et al. (2012), Jananto and Roebianto (2015), Fetscherin & Stephano (2015), John and Larke (2016) become the author's preference. **Excellent Medical Facilities and Service** are similar to the "Excellent Medical Services" factor from Musa et al. (2012), "Medical Attributes" from Jananto & Roebianto (2015), also "Healthcare Provider Specific" from John dan Larke (2016). While in Fetscherin & Stephano's (2015) research, this factor is divided into "Medical Tourism Cost" and "Facility and Services". In Musa et al. (2012) research, the Proximity and Similarity factor is emphasized in the Cultural Similarity factor that includes the short distance from the origin country and the similarity of food, which is one of the cultural forms. Meanwhile, Practical Considerations from Jananto & Roebianto (2015) and Country Environment from Fetscherin & Stephano (2015), also Destination Specific from John & Larke (2016) explained a point that there is a similarity in culture and language. If in this research the affordable flight cost indicator is included in the Proximity and Similarity factors, in Fetscherin dan Stephano's (2015) research, this factor is included in the Medical Tourism Cost factor. It happens because Fetscherin & Stephano's (2015) research grouping is using quite a lot of cost indicators, so it can make its own factor that includes medical tourism cost. The pull motivation theory of Syrakaya et al. (1996)

also explained that the common language used is motivating tourist to visit some destination country. With a familiar language, tourists can communicate better and feel more secure when they are in the destination country. Next is the **Supporting Services**, which is aligned with the "Supporting Services" factor from Musa et al. (2012), "Leisure and Entertainment" from Jananto and Roebianto (2015), "Tourism Destination" from Fetscherin and Stephano (2015), and also "Destination Specific" from John and Larke (2016). Various facilities in the destination such as adequate transportations and accommodations, also the availability of many tourist spots and shopping centres have proven to be tourists' pull motivation in the previous researches. It also reflects the pull motivation theory in tourism from the research of Syrakaya et al. (1996), Kim (2008) and Tjondrowiguno and Astarini (2014) that become the author's reference in this research. Based on the pull factors in medical tourism, no significant differences from the previous research were found. It happens because a pull factor is something that attracts someone's interest to choose a certain destination. The most chosen destinations in this research are Malaysia and Singapore. Musa et al.'s (2012) research analyzed the medical tourists in Indonesia, and Jananto and Roebianto's (2015) research analysed Indonesian people that do medical tourism to Singapore and Malaysia. Therefore, the pull factors in medical tourists are not much different. Even if the research of Fetscherin & Stephano (2015) dan John dan Larke (2016) have different objects, both Malaysia and Singapore are already known in the world as medical tourism destinations.

For the purpose of this study, the segmentation of Indonesian medical tourists were completed by applying cluster analysis based on both push and pull factors newly emerged from the factor analysis calculation. The result of the cluster analysis is dividing the Indonesian medical tourists into three clusters: "Enhancement Seekers", "Assurance Seekers", and "Opportunity Seekers". The first cluster is **Enhancement Seekers**. This segment is similar to Tourism Focus cluster in Kanittinsuttitong's (2015) research and Holidaying Medical Tourist cluster in Wongkit and Mckercher's (2013) research. The medical tourists in this cluster are doing non-urgent medical treatment such as medical checkup and treatment for aesthetic/beauty, so it follows the trend and recommendation from the relatives also the availability of accommodation and transportation, shopping centre and interesting tourism spot become the main consideration. The second

cluster is **Assurance Seekers**. It is similar to Medical Focus cluster in Kanittinsuttitong's (2015) research and Dedicated Medical Tourist cluster in Wongkit and Mckercher's (2013) research. The medical tourists in this cluster make medical treatment or care as the main goal of their trip, thus, the assurance of getting highly qualified and trusted facilities and medical services becomes their main consideration. The third cluster is **Opportunity Seekers**. It is similar with Opportunistic Medical Tourist cluster in Wongkit dan Mckercher's (2013) research, in which the tourist has never had a plan before to do medical treatment, but when they have already in the destination country, they decide to get medical treatment. With the majority of cluster members have only done medical treatment abroad once, it can be concluded that this cluster's members do not have the need to always go abroad to receive medical treatments. The medical treatment that they receive in another country is not their primary choice, but an opportunity that they took. It also explains why the score of the dominant factors tends to be smaller than the most dominant scorer in the first and second clusters, with a guess that there may be some other factors that are not included in the seven factors made in this research. This factor is also supported by Warner (2013) who said that cluster analysis conducted based on the factor analysis result may allow a cluster that did not have any correlation with the existing factors to be formed.

5. CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

This research revealed four new push factors and three new pull factors for medical tourism. The Indonesian's push factors for medical tourism are: "Previous Bad Experience", "Health Reasons", "Social and Personal Self Fulfilment", and "Convinced by the Experts". Meanwhile, the pull factors are "Excellent Medical Facilities and Services", "Proximity and Similarity", and "Supporting Services".

Further, the seven new factors identified three clusters of Indonesian medical tourists: "Enhancement Seeker", is medical tourists who receive a non-urgent medical treatment such as medical check-up and aesthetic treatment, so they follow the trend and recommendation from their relatives as well as the availability of accommodation and transportation, shopping centre and interesting tourist attraction are becoming the main appeal. The "Assurance Seeker" segment consists of medical tourists who make medical treatment as the main goal of their trip, thus, the assurance of get-

ting highly qualified and trusted facilities and medical services becomes their main consideration. Lastly, "Opportunity Seeker" are tourists who have no prior plan of receiving medical treatment, but when they have already in the destination country, they decide to get medical treatment. The members of this cluster are not required to always go abroad to receive medical treatment. The medical treatment that they receive in another country is not their primary choice, but an opportunity that they took.

This research focuses on medical tourism that is directed to physical health, and so, future research could be more focused on wellness tourism that is directed to mental health such as spa, relaxation, meditation, healthy diet, and other mental activities where the huge potential of Indonesian wellness tourism can be developed. Although the participants were from several regions in Indonesia, the majority of them were from Surabaya. Because of this, the researcher suggests that the next researchers widen their geographical grasp by taking respondents from various places in Indonesia. The Indonesian government is also hoped to tighten the certification process for the doctor and paramedic profession so that all medical forces in Indonesia fully understand the treatment procedures. Aside from that, the government could also set regulation on the standard of facilities, equipment, and services to build a place of medical service according to its classification. The result of this research shows that previous negative experience and trusted facilities and medical services quality are the main push and pull factors for the Indonesian to have a medical tour abroad. Hospital and health service provider are hoped to be able to improve the quality of their facilities and services with the availability of adequate equipment and supporting facilities as well as professional medical personnel with good quality standard so that they can avoid the occurrence of malpractice and unsatisfying services. The segmentations of Indonesian medical tourist that are formed in this research can be used to compile medical tourism support packages with the specific characteristics of each segment.

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Table 1
Demographic profiles and travel characteristics

Attributes	n	%
Gender		
1. Male	74	38.5
2. Female	118	61.5
Age group		
1. 17-20 years old	11	5.7
2. 21-40 years old	79	41.1
3. 41-60 years old	74	38.5
4. 61-80 years old	28	14.6
Occupation		
1. Student	41	21.4
2. Private Employee	28	14.6
3. Entrepreneur	72	37.5
4. Government Employee	1	0.5
5. Professionals	6	3.1
6. Housewife	35	18.2
7. Others	9	4.7
Average Monthly Income		
1. Less than IDR 20,000,000	83	43.2
2. IDR 20,000,000 – IDR 30,000,000	35	18.2
3. IDR 30,000.001 – IDR 40,000,000	20	10.4
4. IDR 40,000.001 – IDR 50,000,000	14	7.3
5. More than IDR 50.000.000	40	20.8
The last time going abroad to get medical treatment		
1. 2019	45	23.4
2. 2018	68	35.4
3. 2017	38	19.8
4. 2016	41	21.4
How many times going abroad to get medical treatment		
1. Once	64	33.3
2. 2 times	32	16.7
3. 3 times	27	14.1
4. More than 3 times	69	35.9
Destination country to do medical treatment		
1. Singapore	85	44.3
2. Malaysia	88	45.8
3. Thailand	5	2.6
4. Korea	4	2.1
5. China	8	4.2
6. Others	2	1.1
Medical treatment conducted		
1. Medical checkup	111	48.1
2. Dental care	4	1.7
3. Treatment for aesthetic/beauty (remove wrinkles, eye bags, spots)	13	5.6
4. Internal disease surgery (heart bypass, kidney, liver, lung transplant)	47	20.3
5. Physiotherapy & other special therapies	15	6.5
6. Eye treatment & care (Lasik, cataracts, etc.)	11	4.8
7. Therapy & treatment for fertility (fertility checks, IVF)	9	3.9
8. Others	21	9.1

Who accompanied on the trip to conduct medical treatment		
1. Alone	8	4.2
2. Family	168	87.5
3. Friend	16	8.3
4. Others	0	0.0
Days spent in the destined country to receive the medical treatment		
1. Less than 3 days	31	16.1
2. 3-5 days	110	57.3
3. 6-10 days	28	14.6
4. More than 10 days	23	12.0
Note: n= 192		

Table 2
Push factors influencing to medical tourism travel

Factors and Variables		Factor Loading	Eigenvalue	Variance (%)
F1:	<i>Past Negative Experiences</i>		2.402	21.836
PS9	Personal negative experience with medical treatment in Indonesia	0.802		
PS10	Others' negative experience with medical treatment in Indonesia	0.764		
PS7	Not satisfied with the medical service cost in Indonesia	0.750		
PS8	Does not trust the quality of Indonesian hospitals or paramedics	0.700		
F2:	<i>Health Reason</i>		1.968	17.894
PS1	Want to check personal health condition	0.886		
PS2	Want to receive medical treatment	0.831		
F3:	<i>Social and Personal Self Fulfilment</i>		1.825	16.587
PS4	Following the trend of receiving medical treatment abroad	0.805		
PS3	Want to make personal appearance more attractive	0.714		
PS5	Receiving references and recommendations from relatives	0.640		
F4:	<i>Convinced by the Experts</i>		1.040	9.455
PS11	The medical services needed are not yet available in Indonesia	0.875		
PS6	Recommendation from doctor or hospital in Indonesia	0.638		

Table 3
Pull factors influencing to medical tourism travel

Factors and Variables		Factor Loading	Eigen-value	Variance (%)
F1:	<i>Excellent Medical Facilities and Service</i>		5.062	33.747
PL3	Excellent treatment services and medical facilities	0.842		
PL2	Sophisticated & more modern medical equipment	0.809		
PL4	Professional and trusted doctors and paramedics	0.801		
PL9	The country is famous for its medical treatment	0.719		
PL1	Provision of various alternatives to medical treatment	0.661		
PL8	Treatment costs match with the quality	0.625		
PL6	More guarantee on patients' survivability	0.577		
PL7	Track records & testimonies from previous patients	0.556		
F2:	<i>Proximity and Similarity</i>		2.596	17.305
PL11	Affordable flights	0.865		
PL12	Language and cultural similarity	0.845		
PL10	Not far from Indonesia	0.761		
F3:	<i>Supporting Facilities</i>		1.558	10.386
PL15	Shopping centre available	0.880		
PL16	Interesting tourism objects to be visited	0.879		
PL13	Sufficient local transportation	0.620		
PL14	Adequate accommodation	0.604		

Table 4
Segmentation of Indonesian Medical Tourists

Cluster	n	Past Negative Experience	Health Reason	Social and Self Fulfilment	Convinced by The Experts	Excellent Medical Facilities and Service	Proximity and Similarity	Supporting Services
1	83	-0.30984	0.09286	0.51528	0.39731	0.38712	-0.34481	0.41996
2	60	0.80655	0.32051	-0.08101	-0.48970	0.52186	0.44081	-0.52610
3	49	-0.46279	-0.54976	-0.77363	-0.07336	-1.29474	0.04431	-0.06715
ANOVA results (f statistics)		40,696	12,106	35,126	16,067	130,895	12,064	18.639

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