

## Research on the Analysis of the Competitiveness of the Medical Tourism of Korea Through IPA

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**Abstract:** Medical tourism has expanded to include the wellness products. This research aims to provide policy advice on facilitating medical tourism in Korea through analysis on its importance and satisfaction rate. For analysis, we conducted a survey on Foreigners who visited Korea for medical purposes. The questionnaire included medical service and tourism. We conducted a frequency analysis on population statistical elements and medical tourism part. The analysis (IPA) on importance (Y) and satisfaction (X) from medical tourist visit were evaluated by medical services (5 questions) and medical and tourist environment (8 questions) and the analysis is presented in a 2-dimensional graph. Analysis shows that medical tourism of Korea attracts young Foreign female visitors who are introduced by the internet or friends. Visitors mainly use plastic surgeries and skin care services. Main tourist activities include shopping and food tour. The IPA shows that medical technology, specialized services and hospital name recognition were strengths. The competitiveness of the medical procedure price was selected as the area of heavy improvement. Diversity, uniqueness and marketing of tour programs, accessibility and tourism resources were shown as the areas of gradual improvement. Human resource specialized for medical tourism, safety of the area and international recognition of country's standing are additional service areas. For this reason, the current strengths needs to be further strengthened via marketing strategy including a word-of-mouth marketing using SNS and a prioritized policy for medical tourism improvement is required.

**Key words:** Medical tourism, wellness tourism, well-being tour, health tourism, IPA, strengths

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### INTRODUCTION

Each country is making great efforts to nurture medical tourism, a future growth engine. Korea which is a medical powerhouse, started medical tourism later and has fewer medical tourists than Singapore and Thailand. The Korean medical tourism market has been able to attract foreign patients in accordance with the amendment of the Medical Law in May, 2009 and continues to grow with the government's medical tourism facilitation policy and active marketing of local governments and workers in the industry. Especially, the number of medical tourists who visit Korea in connection with the Korean wave is increasing. Korea faces the social concerns of medical tourism facilitation as well as the risk burden of the late buyers. However with its status of medical power, medical service area expansion, popularization of medical tourism and easing trade barriers of medical service, Korea has become one of the medical tourism destinations in the competitive global market.

The global medical tourism industry has grown more than three times from US \$400 in 2009-13 million in 2015

(Kim and Ryu, 2015) and the average annual growth rate was 51.8% from 60,201 in 2009-296,689 in 2015. 2018 medical tourism market is projected to be \$870 million in size with 790,000 medical tourists (Anonymous, 2016).

Asian countries such as Singapore, Thailand, India and the Philippines have a status as a medical tourism hub by providing high-quality medical services, low-cost medical treatment, low standby time and availability of relaxation and nearby sightseeing spots. In Thailand, medical tourism has been steadily increasing from 630,000 in 2003 to 2.5 million in 2013 (RNCOS, 2013).

In addition, as the medical tourism market has recently expanded, competition for attracting medical tourists from Russia, the Middle East and China is increasing among European countries with a focus on luxury medical tourism products which are wellness tourism products. They are nationally developing the industry as a future growth engine, offering preferential policies such as taxation support and medical visa issuance at the national level. Their private medical corporations providing medical services of better quality,

high-tech medical equipment and differentiated tourism services exemplify the efforts and diversification that have been made.

Medical tourism, combining medical services and tourism as packages is a new and growing industry (Buzinde and Yarnal, 2012; Connell, 2006). Medical tourism is used in a variety of ways including medical tourism, wellness tourism, health tourism, healing tourism, medical travel and wellness tours. Turner (2007) defines as medical service simple medical services such as recreation using artificial and natural resources and simple procedures such as cosmetic surgery and medical treatment as well as serious medical services such as heart surgery (Turner, 2007). Hyeyoung (2009) defines medical tourism industry as a combination of tourist activities and medical activities, combining recreation, medical care and tourism in a country with price competitiveness and excellent medical technology.

First, the wealthy in countries with large economic gaps are using medical tourism due to their dissatisfaction with medical services and preference for advanced medical services. However, even in some advanced medical countries, medical tourism products are being used in the residents of some medically advanced countries because of low-level services for the high price and long standby time required. Second, the burden of increasing medical expenses is resolved through medical tourism. Third, the comparison of medical tourism products between countries according to the development of information and communication as well as the expansion of medical tourism marketing in each country are the reasons for medical tourism. Proliferation of certification for medical services such as standardized medical services and patient-specific medical services by the International Society for Quality in healthcare (ISQua) which validates the accreditation system with the International Accreditation Program (IAP) has facilitated medical tourism. Fifth, as the medical tourism industry competition and the scope of medical service as well as the economic effect of medical tourism increase, the government's will to promote medical tourism as major strategic industry has increased; these reasons are causing the globalization of medical tourism market.

In the case of Korea, medical tourism market is growing rapidly due to medical tourism promotion policy pursuant to revision of medical law and active marketing. According to the satisfaction survey of 1,547 medical tourists who visited Korea in 2015, 64.3% of the tourists visited for medical tourism and 29.5% have used medical services on their visits. The reasons for choosing Korean healthcare services are: excellent medical technology (50.0), medical institution reliability (15.8), cutting-edge

medical equipment and facilities (9.8), human services infrastructure for foreign patients (7.3), reasonable price (3.8), geographical accessibility (3.4) and communication convenience (1.8) (Anonymous, 2016). In order to revitalize Korean medical tourism in the future, it is necessary to improve the quality of items such as price, geographical accessibility, communication convenience and image of the medical services to foreign patients. Also, it is necessary to acquire information on the factors that advance the medical tourism in Korea, medical tourism market expansion policy and activities required for publicity and marketing.

In Korea, governments, local governments and private medical practitioners are developing and promoting medical tourism product that fuses various medical and tourist activities in order to promote medical tourist visits to Korea. However, there is a lack of research on the attributes of reasons for choosing Korea for medical tourism which could be utilized for policymaking and implementation based on a clear understanding of the reasons that Foreign tourists chose Korea and the satisfaction of their choices of medical tourism in Korea. In the past, research has been conducted on medical tourism that includes both health and tourism aspects (Buzinde and Yarnal, 2012; Crooks *et al.*, 2011; Ye *et al.*, 2011). However, the focus is on health care services and the role of tourism is considered relatively low. Therefore, researches including tourism activities should be carried out in order to improve competitiveness and growth of medical tourism. The purpose of this study is to analyze the Importance-Performance Analysis (IPA) of medical tourism in Korea on foreigners who experienced medical tourism in Korea. To do this, we analyze using SPSS 18.0 Program. The purpose of this study is to identify the factors that make foreigners select Korean medical tourism products and to provide as policy data that can enhance the competitiveness of medical tourism based on analysis of importance elements and satisfaction elements.

## MATERIALS AND METHODS

**Data collection:** From November 1-December 21, 2016, we conducted a survey of Foreign tourists in downtown Seoul, hospitals and major tourist destinations to achieve research subjects. The survey was conducted after orally verifying whether or not the subjects had medical tourism experience. A total of 110 questionnaires were used and 103 questionnaires were used for the final analysis, except for 7 questionnaires that had problems such as non-response and errors in writing.

The questionnaire consists of the following demographic factors and medical tourism contents included gender, country, age, medical tourism information acquisition channel, type of treatment, hospitals used and tourism activities. Medical tourism information channels consisted of acquaintances, internet search, travel agency, broadcasting media and print media. The type of treatment consisted of hospitalization (admission), treatment-oriented outpatient, cosmetic outpatient and health checkup. The hospitals were composed of advanced general hospitals, general hospitals, hospitals, dental hospitals and others. We selected two main tourism activities and constructed the items by using classification criteria of Korea Tourism Organization.

The survey questionnaires for the measurement of medical tourism importance and satisfaction were derived from the contents of the medical tourism survey of the Korea Tourism Organization and the previous research. Three experts related to medical tourism reviewed the items and selected a total of 13 items. The questionnaire consists of 5 items (medical technology level, modernization of medical technology, differentiation of medical service, competitiveness of medical cost, human resources specialize in medical tourism) and 8 items of medical and tourism environment factors (diversity and differentiation of tourism program, the promotion of medical tourism products, the accessibility and convenience of transportation, the natural environment and tourism resources of the surrounding area, the interest and support of the government and the local government, the safety of the medical tourism area and the national recognition).

**Data analysis:** First, we analyzed the demographic characteristics of Foreign tourists who have medical tourism experience in Korea and analyzed the frequency and type of medical tourism usage and tourism activities. In relation to the use of medical tourism services, frequency analysis was conducted focusing on contents of medical service and tourism activities.

The IPA for medical tourism refers to comparing and analyzing the tourism visitors through the technique of evaluating the importance and satisfaction of each property of the medical tourism service at the same time. IPA is easy to judge visually because it can express the analysis result graphically and it has important features providing data important for setting priorities and making strategies in relevant policy formulation. The IPA, introduced by Martilla and James (1977) is considered a good condition if part 1 which has a high degree of importance and satisfaction, continues to ‘maintain’ as a

strengths area. Part 2 has a high degree of importance and a low level of satisfaction which requires improvements in a concentrated manner. Part 3 is a low-priority area with low importance and low satisfaction. Part 4 is a part of low importance but high satisfaction and belongs to the supplementary service (surplus) area (Martilla and James, 1977). The IPA result displays the importance and satisfaction values on the 2D graph. The Y-axis represents the degree of importance perceived by tourists for each factor while the X-axis represents satisfaction with the same factors. At the analysis stage, the mean values were used as the center points because they are generally adopted by the IPA studies. Both frequency analysis and IPA were analyzed using PASW 18.0.

## RESULTS AND DISCUSSION

**General characteristics of the respondents:** Table 1 shows the results of frequency analysis of foreigners on medical tourism visits who responded to the questionnaire. The total number of respondents was 103, 35% of which were male and 65%, females. The frequency of countries of residence were in the order of frequency, China 36.9%, Japan 23.3%, Southeast Asia 16.5%, USA 15.5 and others 7.8. In the age group, 64.1% were under 40s, revealing that relatively younger people accounted for the highest percentage. As for the medical tourism information channel, internet search 40.8%, referral by the acquaintance and recommendation 32% while broadcasting and print media 13.6%. Outpatient treatment related to cosmetics was the most common type (51.5%) and hospitalization was low (6.8%). For hospital types, patients ratio were 64.1% in general hospital, 16.5% in general hospital and 11.7% in dental hospital. For multiple responses for the main tourist activities of choice, shopping 36.9%, restaurant tour 29.1%, palace/museum/historical site tour 11.2% and Hallyu exhibition/exhibit tour 10.2% were chosen, showing that shopping and restaurant tour accounted for 66%.

**Results of analysis of importance and performance:** The results of analysis of the importance and satisfaction of medical tourism in Korea are shown in Fig. 1.

Part 1 is an area that needs to be continuously maintained as strengths of medical tourism. The traits that belonged to this area were ‘level of medical technology’, ‘modernization of medical technology’, ‘differentiation of medical service’, ‘hospital awareness’. However, ‘differentiation of medical services’ and ‘recognition of hospitals’ have a lower average value of satisfaction compared to their importance, so, it is necessary to continuously improve in order to have competitiveness. Overall, Foreign tourists are more aware of the importance

Table 1: Demographic characteristics and traits of medical tourism choices

Index	Frequency	Ratio
<b>Sex</b>		
Male	36	35
Female	67	65
<b>Country or residence</b>		
China	38	36.9
Japan	24	23.3
Southeast Asia	17	16.5
USA	16	15.5
Other	8	7.8
<b>Age</b>		
20s or younger	22	21.4
30s	25	24.3
40s	19	18.4
50s	15	14.6
60s or older	22	21.4
<b>Information source</b>		
Acquaintance (family, friends, colleagues)	33	32
The internet	42	40.8
Travel agency	14	13.6
Media	11	10.7
Print	3	2.9
<b>Types of treatment</b>		
Admission	7	6.8
Outpatient (beauty)	53	51.5
Outpatient (treatment)	36	35
Health exam	7	6.8
<b>Hospitals used</b>		
Advanced general hospital	4	3.9
General hospital	17	16.5
Hospital	66	64.1
Dentist's office	12	11.7
ETC	4	3.9
<b>Tourist activities (Multiple responses allowed)</b>		
Shopping	76	36.9
Restaurant tour	60	29.1
Nature and scenery	18	8.7
Palaces, museums, Historical sites, etc.	23	11.2
Traditional culture experience	1	0.5
Theme park, amusement park	7	3.4
Hallyu exhibits, exhibitions	21	10.2

Table 2: Medical tourism IPA analysis factors

Division	Contents
<b>Part 1</b>	
Good performance continued maintenance needs	1. Level of medical technology 2. Modernization of medical technology 3. Specialization of medical services 13. Brand awareness of hospital
<b>Part2</b>	
Improved concentration	4. Competitiveness of medical cost
<b>Part 3</b>	
Gradual improvement requires a low priority	6. Diversity and uniqueness of tour programs 7. Marketing of medical tourism products 8. Accessibility and ease of using transportation 9. Surrounding natural environment and resources for tourism 10. Support of the central and local government
<b>Part 4</b>	
Additional service	5. Human resources specialize in medical tourism 11. Safety of the medical tourism destination 12. Awareness of the country's standing

Part 2 is an area where intensive improvement is required. Only the 'competitiveness of medical costs' appeared in this area. Although, medical expenses are an important part, tourists are not satisfied with the high inflation and the appropriateness of medical expenses in Korea. This issue has also been constantly raised in various previous studies as well as reports by the Korean government (Table 2).

Part 3 area is a low-priority area that needs gradual improvement. The greatest number of factors were located in the area. There are five factors: 'diversity and differentiation of tourism programs', 'promotion of medical tourism products', 'convenience of access and transportation', 'natural environment and tourism resources around' and 'interest and support of government and local governments'. 'Diversity and differentiation of tourism programs' is close to the part 3 area which is close to the average value (M = 3.5) of 3.49. Therefore, it is necessary to seek a way to improve this intensively in order to facilitate medical tourism in the future. The support of the government and the local government showed the lowest score. This is interpreted as the fact that the factors of medical service and quality are perceived more importantly than the efforts of the government and the local government.

Part 4 is an area of supplemental service with low importance but high satisfaction. The 3 factors in this area are 'Medical tourism professionals', 'safety in medical tourism areas' and 'national awareness'. 'Medical tourism professionals (M = 4.04)' and 'safety of medical tourism area (M = 3.35)' were the factors with the highest importance value average. A series of results indicate that the kindness and service of the coordinator and travel agent are highly evaluated and can be interpreted as reflecting the high level of security and order in Korea. Part 4 is a supplementary service area but from a marketing

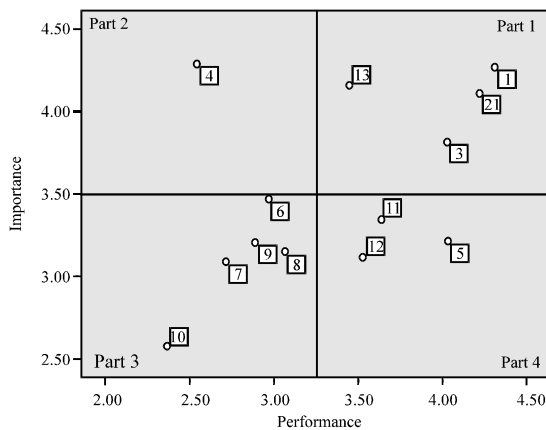


Fig. 1: Medical tourism IPA analysis graph

of medical technology than anything else in medical tourism and they are evaluating Korean medical technology highly.

point of view if it is expanded as a specialized area of medical tourism in Korea, it could be a differentiating factor that adds to competitiveness in the international community.

### **CONCLUSION**

The purpose of this study is to investigate the factors of selection of Korea for medical tourism products and to provide policy data that can enhance the competitiveness of medical tourism through the importance and satisfaction analysis (IPA) of Foreign tourists medical tourism experience in Korea. For this purpose, the survey was conducted on Foreign tourists with Korean medical tourism experience and the results are as follows.

The characteristics of Foreigners who use medical tourism is that mainly young Foreign female tourists go to hospitals for medical and cosmetic related services of which they learned through the internet and introduction of acquaintances. They also go shopping and restaurant tours.

The IPA results for Korean medical tourism properties are as follows. The strengths of medical tourism are 'level of medical technology', 'modernization of medical technology', 'differentiation of medical service' and 'recognition of hospital'. On the other hand, 'Competitiveness of medical expenses' was analyzed as the area that needs intense improvements. The areas where priority is low but gradual improvement is required include 'diversity and differentiation of tourism programs', 'promotion of medical tourism products', 'convenience of accessibility and transportation', 'natural environment and tourism resources around' and 'interest and support of the government and local governments'. Finally, factors that are considered as supplementary services or surplus areas are analyzed as 'medical tourism professional manpower', 'safety of medical tourism area' and 'national awareness'.

### **RECOMMENDATIONS**

The following is the policy recommendations for the promotion of Korea medical tourism based on the analysis results.

First, it is necessary to establish a marketing strategy that reflects the characteristics of medical tourists. Unlike in Thailand, India and Singapore, medical tourism in Korea is centered on women and medical services related to beauty. This tendency can be seen as a result of the influence of Hallyu, the Korean wave. It is also good to

attract medical tourists of various kinds of demands but it could also a good strategy to establish Korea's positioning as beauty center. At the same time, it is necessary to promote tourism products from the wellness perspective and for expansion.

Second, it is necessary to apply oral marketing using social networking services. Social networking services are having the greatest impact not only on medical tourism but also on consumer behavior around the world. Communication with friends, family, colleagues and acquaintances in social networks has become a crucial oral marketing tool. Therefore, in the future, it is necessary to establish marketing strategy that uses social networks more than the traditional PR marketing.

Third, in order to revitalize medical tourism, it is necessary to develop strengths and establish development policies according to the priorities. Korea's medical services have achieved remarkable results in a short period of time thanks to technological innovation, training of high-quality medical personnel and the universal healthcare system. Based on this, the beauty industry fused with Hallyu needs to be established as a specialized strategy for the new medical tourism industry. On the other hand, high inflation and appropriate medical service pricing need to be improved and set as a top priority for improvements in medical tourism. Also, it is necessary to diversify medical tourism products that combine various tourism activities such as taste travel and storytelling, reflecting the trend of tourism.

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