

Perceived Risk of Korea Medical Tourism Influencing Purchase Hesitation

Multiple Regression Analysis Based on the SPSS 21.0

Lijun YANG¹, Xiaoye LU²
¹13466846182@163.com, ²85164885@qq.com

¹Kyonggi University, Seoul, Korea, Shanghai University of Medicine & Health Sciences, Shanghai, China;
²Department of Global Business, Kyonggi University, Suwon-si, Republic of Korea

Abstract —Medical tourism around the world is growing into a high value-added tourism industry in the 21st century that combines medical services and tourism. Korea's medical tourism industry is also attracting attention. With the economic growth, China is seeing more and more medical tourists visiting Korea every year. The purpose of this study is to investigate the level of perceived risk factors of potential healthcare residents living in China. This study will analyze the effect of risk factors on the purchase of medical tourism products, analyze them empirically and suggest directions for attracting Chinese medical tourists in the future. In order to achieve the purpose of the study, we surveyed Chinese people who are potential Chinese consumers of Korean medical tourism for 60 days from September 30 to November 30, 2020. A total of 539 questionnaires were distributed, and the results of 39 surveys, excluding 148 fraudulently created surveys, were analyzed using frequency statistics, descriptive statistics, factor analysis, reliability analysis, correlation analysis, regression analysis, and mediation effects based on the SPSS 21.0. The results and suggestions summarized through the verification are as follows. First, the hypothesis that perceived risk affects purchasing hesitation is related to the perceived risks of Chinese medical tourists (the risk of performance, financial risk, and psychological risk, respectively). Consequently, for potential Chinese consumers, it is important to minimize the risk perception by ensuring a high level of medical care and service for Korean medical services. Second, the medical financial risk is the most important factor in Korea medical tourism. There may be complaints if additional costs are incurred because of long-term costs or unsatisfactory outcomes. The quality of medical service is also important.

Keywords-medical tourism, perceived risk, purchase hesitation

1. INTRODUCTION

1.1 Background and Issues of Research

Korea's tourism industry is growing, attracting attention as a high value-added industry to revitalize the economy. In recent years, as the standard of living has improved throughout the

world and interest in the quality of life grew higher, there has also been a change in people's tourism needs. [1]. An attempt has been made to find new value through sightseeing, from sightseeing to experiencing, and through tourism, treatment and care. As the desire for a socially healthy life increases, the demand for medical tourism is growing rapidly during enjoying tourist service, and with a new awareness of wellness worldwide, and the increasing interest on health, so the medical tourism is becoming more attractive [2].

The First key policy is networking projects to attract medical tourism, the second is Korea Medical Service's overseas promotion marketing project and the third is promoting businesses to create a friendly environment for medical tourists (foreign patients). Since 2009, foreign patients who have been treated at Korean medical institutions represent an average annual increase by 34.7% [3]. It is possible to predict that there will be more Chinese people visiting Korea for medical tourism purposes, which is coincident to the end of the Corona. It is now believed that it is time to start battling for qualitative growth with the quantitative increase in term of foreign patient visits, and in order to increase the quantitative growth of foreign patients, it is necessary to conduct empirical research to determine what factors influence the decision and to consider when potential demand for medical tourism is selected when travelling to Korea [4].

Based on this background of research, this paper seeks to examine what influences the choice of Korea as a medical tourism destination, and to give a demonstrative examination of the reluctance to purchase. Based on this, we expect quantitative growth in the medical tourism market, and we want to increase the purchase rate by eliminating factors that inhibit the purchase by medical tourism consumers, and derive implications for the development of high value-added medical tourism products [5].

This study focuses on Chinese consumers, who have recently grown into an important driving force, and seeks to simultaneously explore whether perceived risks, including performance, financial, and psychological risk factors, affect their reluctance to purchase medical products.

1.2 Purpose of Research

This study seeks to know the level of risk factors perceived by potential consumers residing in China for Korean medical tourism in order to understand what kind of perception they have about Korean medical tourism as potential customers. However, this study aims to understand how risk factors affect the purchase of medical tourism products. The purpose of this study is also to provide directions for attracting medical tourists in the future to attract medical tourists from China through this study.

1.3 Methods of Research

In order to achieve the purpose of this study, literature review and empirical study were carried out in parallel. In recent years, by analyzing prior research and reporting data related to domestic and foreign medical tourism, the theoretical background was derived, and the relationship model of perceived risk to Korean medical tourism and reluctance to purchase medical tourism products was established and hypothesized. In order to verify the derived measurement items, the empirical study conducted a questionnaire survey targeting Chinese potential consumers of Korean medical tourism.

The survey method was to conduct surveys of potential Chinese tourists face-to-face, in writing, and via the Internet. The survey subjects of this study were local people living in China, regardless of the region.

2. THEORETICAL BACKGROUND

2.1 Medical Tourism

It is necessary to clearly identify the terms of medical tourism in order to conduct research related to medical tourism. The term "medical tourism" has been defined through many prior studies.

First of all, if you look at the definition of medical tourism listed on Wikipedia as a dictionary, medical tourism is a word with a broad meaning that is used for the maintenance, recovery, and promotion of human health in other provinces or countries.

Looking at the definition of medical tourism discussed in prior studies at home and abroad, medical tourism is defined as mainly focusing on the motivation and behavior of tourists. Hall (1992) said that medical tourism is "one of the special interests of tourism with health-related tourism as a main motive" while Cho Gu-hyun defined medical tourism "as a type of tourism that provides excellent medical services in combination with tourism activities for patients with the purpose of promoting health and treatment". Ryu In-pyeong and Guk Jun-geul defined medical tourism as a tourist activity that allows visitors to visit some parts of the world for the purpose of experiencing medical benefits such as healthcare and treatment, and at the same time to explore tourism, leisure and culture in the area that can be a relaxation and diversion necessary for patient care [6].

Lee Sang-woo defined medical services such as medical care, treatment, and surgery in domestic medical institutions as sightseeing in parallel with medical services by patients and their companions [7]. In order to comprehensively understand the types and purposes of a visit by various medical tourists, Kim Bongi defined medical tourism as a complete concept that includes all tourist activities such as recreation, leisure, and cultural experiences that can meet the needs of various medical services and medical tourism from difficult skills such as cancer surgery or plastic surgery, and light treatment of skin and beauty [8].

2.2 Perceived Risk

In the consumer's decision-making process, there is uncertainty in the purchase behavior of a product or service depending on the type of product, the price level, and the level of information related to the product or service that the consumer has enjoyed, and there is a risk that the consumer perceives in the decision-making process related to the purchase based on this uncertainty [9].

Cunningham (1967) argued that if the outcome of consumer behavior was not favorable, the amount of loss and uncertainty about the outcome for which the outcome were not favorable constituted the perceived risk due to individual subjective emotions.

Perceived risk refers to the feeling of uncertainty associated with the services provided and the consumer's feeling of negative consequences, and the expectation that consumers feel subjectively about losses [10]. These perceived risks are the main factors that have huge influence on purchasing decisions, but for consumers, the perceived risks do not affect purchasing decisions.

George argued that tourists made comparative judgments in terms of benefits and costs in recognizing alternative tourist destinations.

2.3 Purchase Hesitation

Hesitation is defined as the act of hesitating; Delay is caused by uncertainty and fear, uncertain questionable situations, pauses in speech, etc.

Hesitation is the postponement of the purchase by having additional consideration time before finally deciding to purchase the product, and the delay in making the decision [11].

Wong & Yeh's research is to find answers to the reasons why tourists hesitate, postpone, plant, change their destination, or change their itinerary, the risk perception of tourists was related to hesitation, and was highly related to tourist knowledge. In other words, there was a very close relationship between risk perception and hesitation in the low tourist knowledge group, and there was a low relationship in the high tourist knowledge group [12].

Kim Hanna suggests performance risk perception, financial risk perception, social risk perception, procedural uncertainty, and need uncertainty as reasons for consumers to postpone purchasing decisions, especially when consumers postpone purchasing decisions when they feel negative about performance, financial, and social risk perception and need uncertainty [13]. Hesitation can be described as a difficult situation to choose or postpone a purchase, perceiving uncertain results and incorrect decisions.

In prior studies, value perception and risk perception were potential factors and predictors of decision-making, and high value perception had a positive effect on hesitation while high risk perception resulted in increased hesitation [14].

3. RESEARCH PLAN

3.1 Research Hypotheses and Models

In this study, we tried to figure out what risks potential Chinese consumers have when choosing Korea as a medical tourism destination, and how perceived risks affect the hesitation to purchase medical tourism products.

A research model to see if perceived risk factors of potential Chinese tourists affect their reluctance to buy Korean medical tourism products can be expressed as shown in Figure 1.

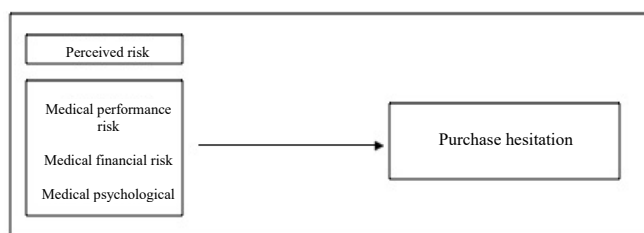


Figure 1 Research Model

In this study, the following hypotheses are set to validate the impact of perceived risks to medical tourism in Korea on reluctance to purchase medical tourism products.

H1: The risks perceived by Chinese tourists to Korean medical tourism will have a significant impact on their reluctance to purchase medical tourism products.

H1-1: The perceived medical performance and risk of medical tourism in Korea will have a significant impact on the reluctance to purchase medical tourism products.

H1-2: The perceived medical performance and risk of medical tourism in Korea will have a significant impact on the reluctance to purchase medical tourism products.

H1-3: The risk of medical psychology perceived by medical tourism in Korea will affect the reluctance to purchase medical tourism products.

3.2 Data collection and Analysis method

The purpose of this study is to study how potential Chinese consumers affect their purchase of Korean medical tourism products through perceived risk factors for Korean medical tourism. This study conducted a 60-day survey from September 30, 2020 to November 30, 2020 based on a study of local people living in China. The sampling method was conducted by individual interview method based on a questionnaire and a total of 539 copies were distributed. Finally, 391 copies were used for analysis, excluding 148 inappropriate or insincere responses.

The data collected for this study used SPSS to perform demographic characteristics of the sample, such as frequency analysis, reliability analysis, and multiple regression analysis.

4. EMPIRICAL ANALYSIS

4.1 Analysis for research project verification

The validity and reliability testing of various variables are shown in Table 1.

Table 1 Validity and Reliability Analysis

Factor	Variable identifier	Factor loading	Distributed explanatory power	Cronbach's α
Medical Performance and Risk	The service itself	0.886	69.733	0.780
	Service Expectations	0.871		
	Service Delivery	0.741		
Medical Financial Risk	Waste of money	0.776	54.940	0.794
	Long-term cost	0.767		
	Additional costs	0.740		
	Value Equivalent	0.730		
	Comparatively low price	0.690		
Medical Psychological Risk	Fear	0.881	76.800	0.849
	Tension	0.876		
Purchase hesitation	Postponement of decision	0.854	71.774	0.802
	Note decided	0.884		
	Lack of decision time	0.884		

Note) Factor extraction is the main component analysis, factor rotation is Kaiser normalization, Varimax use KMO (Kaiser-Meyer-Olkin): 0.731, Bartlett Conformity Verification: $\chi^2=496.032(p=0.000)$ Spherical Verification: 76.800%

Reliability refers to the consistency of measurement methods. In this research, SPSS was used for the reliability analysis of the consistency of variables in the model. Nunnally (1978) believed that, if the reference value of Cronbach's alpha was higher than 0.7, it would be a high-reliability value, and if the reference value was lower than 0.35, it would not be adopted. As shown in Table 1, Cronbach's alpha of each variable in this research model ranges from 0.78 to 0.84, which is higher than the acceptable value (viz. 0.7), and the data show that the above-mentioned variables are highly consistent.

Validity refers to the level of efficiency of measurement results. Through the factor analysis, the KMO values of concept and attribute of various variables exceed 0.6, so the values of this scale are completely consistent with the range of appropriateness. It indicates that the construct validity of this questionnaire is good.

4.2 Hypothesis testing

Verification regression analysis of the impact relationship between perceived risks and reluctance to purchase medical products on Korean medical tourism is a method of analysis to determine how independent variables affect dependent variables. The regression analysis of this study was conducted to determine the effect of Chinese tourists and their reluctance to purchase, which is a dependent variable on each independent variable of medical performance and risk, medical financial risk, and medical psychological risk, which are perceived risks for Korean medical tourism.

The regression expression represents 55.7% of the total variance, the significance is .000, which is statistically very significant.

Table 2 Multiple regression analysis of perceived risks affecting medical product hesitation

	Standardized regression coefficient		Standardized coefficient	t-Value	p-Value	Collinearity
	Beta	Standard error	Beta			VIF
Constant	0.681	0.138		4.950	0.000	
Medical performance risk	0.173	0.051	0.188	3.371	0.001**	2.746
Medical financial risk	0.440	0.056	0.396	7.895	0.000**	2.213
Medical psychological risk	0.225	0.046	0.250	4.877	0.000**	2.315
$R^2 = 0.560$, $Adj - R^2 = 0.557$, $F = 164.129$, $p = 0.000$, $D/W = 1.717$						

4.3 Adoption of the hypothesis or not

Table 3 Test result of acceptance of hypothesis

Hypothesis	Hypothesis Contents	Verification Result
Hypothesis 1-1	The perceived medical performance risk on the Korean medical tourism will give a significant influence on the purchase hesitation about the medical tourism products.	Hypothesis accepted.
Hypothesis 1-2	The perceived medical financial risk on the Korean medical tourism will give a significant influence on the purchase hesitation about the medical tourism products.	Hypothesis accepted.
Hypothesis 1-3	The perceived medical psychological risk on the Korean medical tourism will give a significant influence on the purchase hesitation about the medical tourism products.	Hypothesis accepted.

5. CONCLUSION

As a risk factor identified through this study, it is expected to contribute greatly to expanding the base of the medical tourism market and increasing the number of medical tourists visiting Korea.

The hypothesis that perceived risk affects the reluctance to buy is that performance risk, financial risk, and psychological risk affect the reluctance to buy at a confidence level of 1% in the perceived risk factors of potential Chinese tourists in Korean medical tourism. In particular, medical tourism in Korea can be seen as the result of the largest share of medical financial risk.

Through the results of this study, we would like to suggest the following implications.

It has been confirmed that perceived risk affects purchase hesitation. Therefore, it is important to minimize risk perception by giving Korean medical services high medical standards and confidence in services. Among the three factors, the factor that has the greatest influence on purchase hesitation is medical financial risk. In other words, the dissatisfaction may arise if additional costs are incurred due to long-term costs or unsatisfactory results. However, cheap prices do not necessarily mean customer satisfaction. It is necessary to make the range of choice wider by making a variety of products for Chinese people at different prices. The quality of Korean medical services is superior to that of China, and medical technology and equipment can attract Chinese people with medical technology that is comparable to developed countries. A lot of attention to medical communication should be paid as well. Satisfaction getting from the various sights, eateries, and purchases in Korea will affect intention to visit and use medical tourism.

References

- [1] Health Industry Promotion Agency (2015), Results of Foreign Patient Attraction Performance Survey from 2014
- [2] Mi-kyung Kim, Se-mok Yoon, and Se-nam Yoon (2008), Exploratory research for the development of medical tourism products in Korea, *Research on tourism*, 32(6), 431-44
- [3] Kim Hyeon-joo (2010), Information and practice manual for attracting medical tourists by the number of major competing countries, Service Science Forum Presentation, Korea Tourism Corporation.
- [4] Heung-sik Kim, Tae-kyung Kim, Su-jin Lee, Bong-gu Lee, In-jae Lee (2009), A Study on the Development Plan of Gyeonggi-do Medical Tourism Industry, Gyeonggi Development Institute, Policy Study 2009-28.
- [5] Jung Hong-kyo (2011), The impact of Perceived risks of medical Tourism in Korea on expected value and behavioral intent-centered on Chinese and Japanese audiences", Master's thesis, Kyung Hee University Graduate School of Business.
- [6] Dongjin Kim·Hyunjeong Kim (2015), A study on the difference in importance of risk reduction strategies and medical tourism bureau selection attributes according to market segmentation through perceived risk of potential US medical tourists. *Tourism Research*, Vol. 30, No. 2, 41-60.
- [7] Min-sook Kim and Ho-yeol Bang (2014), Analysis of Determinants of Purchase Intention of Overseas Medical Tourists. *Journal of Trade Studies*, Vol. 39 No. 1, 43-76.

- [8] Connell, J.(2006), Medical tourism: Sea, sun, sand and surgery. *Tourism Management*, 27(6), 1093-1100.
- [9] Behavior (116-128), Boston: Graduate school of business administration. Harvard University.
- [10] Dowling, G. R., & Staelin, R. (1994), A model of perceived risk and intended risk-handling activity. *Journal of Consumer Research*, 21(6), 110-134.
- [11] Cho, kang & Cheon, H.J. (2006),"Online Shopping Hesitation", *Behavioral Social Networking*, Vol. 9 No.3, 261-274.
- [12] Cormany, D (2008), "Taking a pulse on potential medical tourism", *Medical Tourism*, Issue 7, 1093-1100.
- [13] Lunt, N., & Carrera, P. (2010), Medical tourism: Assessing the evidence on treatment abroad. *Maturitas*, 66(1), 27-32.
- [14] Pavlou, P. A., & Gefen, D (2004). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134.