Determining Contributory Factors to the Competitiveness of Iran’s Medical Tourism: An Importance-Performance Analysis

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Received September 9, 2021; Accepted January 15, 2022; Online Published February 8, 2022

Abstract

Introduction: Medical tourism is developing more rapidly, particularly in developing countries, as a tool to enhance economic growth and achieve a competitive position. The present study aims to investigate and identify contributory factors to the competitiveness of Iran’s medical tourism using importance-performance analysis.

Methods: This is an applied study with a descriptive nature conducted using field studies and surveys. A conceptual model was adopted and contributory factors were extracted from previous studies. A questionnaire was designed based on extracted factors and opinions of experts who are specialists in the field of medical tourism. The statistical population consisted of tourism experts, health experts, physicians, and medical staff working in hospitals with international units. Data analysis was performed using SPSS.

Results: The results showed that “medical services” were more important than the two components “special factors of tourism” and “characteristics of medical tourism destinations”. It was also revealed that the current situation of “medical tourism destination characteristics” is unfavorable compared to the other two components.

Conclusion: This study provided an insight into the importance and quality of performance of the factors affecting the competitiveness of medical tourism, which can be beneficial for managers and planners in Iran and other medical tourism destinations.

Keywords: Medical Tourism, Competitiveness, Importance-Performance Analysis, Iran

Introduction

Medical tourism has emerged since the 1990s as a result of rising treatment costs in developed countries, increased waiting times, technological advances in Internet access, an aging affluent population after World War II, increased demand for beauty services, as well as increasing leisure time.¹ Medical tourism as one of the components of the tourism industry is connected to the tourism industry through hotels, airlines, leisure-entertainment activities, and all related infrastructures. With the expansion of medical tourism, the industry is increasingly coordinating with relevant companies and other institutions such as hospitals, insurance companies, and newly established travel agencies.²

The two terms medical tourism and medical travel are used interchangeably. It is expressed that medical tourism is an industry in which people living in a country travel to another country for medical, dental, and surgical care and at the same time receive medical services similar to what residents receive.³ On the other hand, the issue of competitiveness is one of the most important concerns of businesses in today’s dynamic and competitive environment. In recent years, competition has emerged as an economic concept affecting the sustainable development of the travel and tourism industry.⁴ Economic efficiency is one of the most important aspects of tourism competition. Due to the unique nature of tourism, the ability of a destination to compete also depends on its social, cultural, political, technological, and environmental strengths.⁵

The competitiveness of a tourist destination refers to the attractiveness of an area for local and non-local residents and the provision of quality, innovative, and attractive tourism services to consumers. It also represents gaining a market share inside and outside the destination, while ensuring that available resources are used efficiently and sustainably.⁶ On the other hand, medical tourists are looking for health care outside their place of residence. Their main motivations include advanced technology, faster access, and higher quality at the destination.⁷ Iran has significant achievements in the field of infertility, radiology, kidney and liver transplantation,
the quality of service, low cost of treatment and medicine compared to other Middle Eastern countries, as well as access to advanced and new equipment and professionals, along with natural and cultural attractions.9 There are also three main factors affecting the development of medical tourism that are the country's condition, hospital conditions, and physician conditions.9

Country Conditions
Political factors: During political uprisings, security for patients is a priority.

Legal conditions: Issues such as permission to perform certain surgeries that are prohibited in the country of origin, as well as protection of patients' information and legal support against mistreatment are among the legal factors.

General conditions for attracting tourists: Accommodation facilities, adequate facilities for companions, and a proper transportation system are included in this aspect.9

Hospital Conditions
Cost: The cost difference between destination and country of origin can result in increasing the demand for medical services.

Quality of care services: Access to quality and safe medical care is of paramount importance to international patients who are exposed to life-threatening conditions or undergoing surgery.

Equipment and technology: Up-to-date physicians, new surgeries, and standard equipment in a hospital to attract patients to a certain destination are included in this regard.9

Physician's Condition
- The specialty of internationally accredited physicians and academic centers where they graduated from;
- A valid international certificate;
- Brilliant medical records; and
- Proficiency in international languages and the ability to communicate with the patient.9

Moreover, several factors such as governmental, infrastructural, economic, and socio-cultural factors, as well as general conditions are also effective in selecting medical tourist destinations.9 The infrastructural factors as preconditions for developing tourism in every region include the existence of fundamental facilities and appropriate transportation structures such as airports, ports, highways, public transportation, accommodations, hospitality centers, Telecommunication technology, easy access to information, public hygiene situation, and access to healthy drinkable water.10 These factors provide tourists with easier traveling, as well as more appropriate and desirable use of the host country's facilities and attractions, thus satisfying the tourists.

Numerous studies have been conducted on medical tourism. A literature review was conducted in 2021 on 802 articles on medical-health-wellness tourism from 1970 to 2020.12 However, the issue of medical tourism in Iran has been less addressed in terms of competitiveness and it has been focused on aspects and development requirements of this sector. For example, in a study13 the impact of non-therapeutic factors on the development of health tourism was investigated and five non-therapeutic factors were listed including economic, cultural, governmental, infrastructural, and general conditions as effective factors. In another study,14 researchers aimed to find a model for attracting health tourists to Iran. They found that 5 main categories must be included in the mentioned model comprising the quality and value creation of treatment, health advertising, urban brand equity, Islamic treatment services, as well as tourism infrastructure and attractions. There are also significant studies on competitiveness focusing on Iran's tourism industry. Concerning the destination competitiveness, several studies have been conducted.15-21

Concerning the competitive advantage and competitiveness regarding health tourism, in particular, one can refer to research on the competitive advantage of Iranian medical tourism marketing.22 In reviewing other studies outside Iran, a study23 was performed on medical tourism in Georgia (existing barriers and recommendations) to identify the factors affecting the development of medical tourism in Georgia. It showed that the policies and regulations, government support, costs, problems related to the capacity, and the medical needs of the local community are the most important obstacles to the development of medical tourism in Georgia. In another study24 on competitive characteristics of a medical tourism destination, 29 competitive characteristics of the medical tourism destination for South Korea were identified along with the relative performance of the country on these characteristics.

Other researchers25 studied the promotion and advancement of medical tourism in India. They concluded that success in the field of medical tourism depends on informing patients successfully about treatment procedures, treatment facilities, tourism opportunities, and travel arrangements. The factors influential in selecting the hospitals in Thailand as a medical tourism destination were examined in a study.26 The results showed that among the studied factors, the factor of specialized and reputable physicians had the highest score.

Overall, a review of the tourism literature shows that several studies have been conducted on the competitiveness of the destination. Many researchers have examined this subject from different aspects and perspectives, whether it is health tourism or other types of tourism. However, less research has been done on Iran's health tourism from the perspective of competitiveness. Health tourism has become more prosperous as a result of the medical advances in Iran. However, most previous research examined the capabilities of health tourism in a certain province or a region or studied the factors affecting this type of tourism in a particular area. Therefore, this study tries to identify and prioritize the factors affecting the competitiveness of medical tourism destinations emphasizing Iran's medical tourism.

Methods
Design and Settings
The present study is a primary analysis with a descriptive quantitative approach and an applied study, in terms of
purpose. It was performed in 2020 in Tehran’s hospitals offering Medical Tourism services. The classification of Junio et al.\(^2\) was adopted considering three main dimensions of medical services, characteristics of the medical tourism destination, and special factors of tourism (Figure 1). By reviewing previous studies, factors and indicators mentioned in various researches were extracted and used to document the factors.

To collect the required data, two methods of library and field study were used. First, the main influential components of competitiveness were extracted, based on which a questionnaire was developed. The designed questionnaire was validated by 6 experts. After concluding the opinions of the experts, the relevant indicators were finalized in each dimension, so that 12 indicators were determined for the characteristics of medical tourism destinations, 17 indicators for medical services, and 8 indicators for special tourism factors. The final questionnaire was designed with answers on a 5-point Likert scale.

**Samples**

Tourism experts and medical staff working in hospitals with international units created the statistical population of the study. The sample size was 385 based on Cochran’s formula. Due to the coincidence of this study with the corona pandemic period and the lack of access to the entire statistical population, 92 questionnaires were completed. Sampling was performed by a combination of convenience and snowball sampling methods. The samples consisted of 58% women and 42% men. Also, the frequency distribution of respondents based on job variables revealed that 22% of employees were in the tourism industry, 17% were university professors, 38% were medical staff and 22% had other occupations. In terms of age groups, 38% of the respondents were aged 31-40 years. Regarding education level, 36% of respondents had a master’s degree. The highest frequency distribution of the respondents based on the variable of specialization was 27% for specialization in tourism, 22% for management and economics, and 51% for other specialties in the field of treatment including physicians and medical staff. Moreover, 36 experts had more than 15 years of experience and the rest had <15 years of experience.

**Data Analytical Plan**

To analyze the gathered data, SPSS software and one-sample \(t\) tests were used along with Citizen Satisfaction Index (CSI) and One-way analysis of variance. To investigate content validity (which means the survey contains questions covering all aspects of the measured construct), first, the relevant indicators and factors were extracted from the literature. An initial questionnaire was then designed and given to 8 experts to check based on the grammatical quality, using appropriate words, as well as the proper order of words in each item. Five experts were male and 3 experts were female, of which 4 were specialized in the medical services sector (physicians and medical staff) and the rest specialized in tourism and medical tourism industry. Six experts had more than 10 years of experience and the rest had less than 10 years. Moreover, in the quantitative content validity method, the content validity ratio (CVR) was calculated by SPSS Software. In this regard, the experts were requested to specify whether each item was necessary for operating a construct in a set of items or not. In this way, they scored each item from 1 to 3 (not necessary, useful but not essential, and essential, respectively). CVR value for each item (question) was 0.75 and above 0.75 indicated an acceptable value. On the other hand, regarding the reliability of the instrument, a value of 0.941 for the Cronbach alpha coefficient represented the acceptable reliability of the questionnaire.

**Results**

In order to evaluate the mean of the studied components based on respondents’ perspectives, one-sample \(t\) test was used. The first question was ‘How important is each of the factors affecting the competitiveness of medical tourism in Iran?’. The results of the \(t\) test are given in Table 1.

According to the results of the \(t\) test, the significant value is less than 0.05 and the upper and lower limits are positive. Therefore, there is a significant difference between the average importance of factors affecting the competitiveness of medical tourism in Iran. Moreover, with a confidence of 95%, the average importance of the factors affecting the competitiveness of medical tourism in Iran is higher than average. The results indicate that each of the factors

![Image](https://example.com/image.png)

**Figure 1.** The conceptual framework of the research. Adopted from Junio et al.\(^2\)

**Table 1. Importance of Contributory Factors to the Competitiveness of Iran’s Medical Tourism**

| Factors                                              | Mean | N   | SD   | \(t\)  | \(P\)  | Mean Difference | 95% Confidence Interval |
|------------------------------------------------------|------|-----|------|-------|-------|-----------------|------------------------|
| Importance of characteristics of medical tourism destination | 3.65 | 92  | 0.77 | 8.07  | 0.000 | 0.64            | 0.80 - 0.49            |
| Importance of medical services                       | 4.06 | 92  | 0.79 | 12.83 | 0.000 | 1.06            | 1.23 - 0.90            |
| Importance of special tourism factors                | 3.78 | 92  | 0.83 | 8.99  | 0.000 | 0.78            | 0.95 - 0.61            |
| Total                                                | 3.83 | 92  | 0.73 | 10.94 | 0.000 | 0.83            | 0.98 - 0.68            |

\(t\) test.
influencing the competitiveness of medical tourism in Iran is highly important. On the other hand, the second question of the research was 'what is the current status of the contributory factors to the competitiveness of medical tourism in Iran?'. The results of the t test are given in Table 2.

The results of the t test show that the significant value is less than 0.05 only for the performance of health services. It is also revealed that both upper and lower limits are positive for health services, while for other factors the lower limit is negative. Therefore, with a confidence of 95%, the current performance of the factors affecting the competitiveness of medical tourism in Iran is moderate. The performance of the mentioned factors is not as favorable as expected.

Citizen Satisfaction Index
CSI is considered one of the effective indicators in the customer decision-making process, which is obtained by multiplying the two indicators of importance and performance of the dimensions of satisfaction. Table 3 indicates the value of the CSI index for the variables studied in the research. As seen in Table 3, the highest and the lowest values of CSI were related to medical services and the characteristics of medical tourism destinations, respectively.

Comparison of Means in Terms of Demographic Variables
Table 4 displays the test results for performance dimensions based on gender. The results of the Levene test and t test show that there is no significant difference between male and female respondents.

Analysis of variance was used to examine equality between different groups (more than two groups) and determine significant differences between different groups. It should be noted that the one-way analysis of variance only expresses the significance and non-significance of differences between different groups. Hence, to compare the two groups, Tukey test was used. Table 5 summarizes the results of the one-way analysis of variance and Tukey test based on occupation, age, education, and specialty variables. The results show that the performance of factors affecting the competitiveness of Iran's medical tourism is not significantly different among respondents with different jobs, ages, educations, and specialties.

Discussion
The present study aimed to investigate and identify contributory factors regarding the competitiveness of Iran's medical tourism using importance-performance analysis. Our findings revealed that the component of tourism destination characteristics was less important than other components. According to the performance aspect, it was found that tourism destination characteristics had the less favorable conditions, followed by the special factors of tourism with an unfavorable performance. Therefore, only the performance of medical services had better conditions.

On the other hand, today, as a result of the experienced medical staff, low travel and accommodation costs, and the

| Factors                                      | Mean | N   | SD  | t     | P-Value | Mean Difference | 95% Confidence Interval | Lower Limit | Upper Limit |
|----------------------------------------------|------|-----|-----|-------|---------|-----------------|-------------------------|-------------|-------------|
| Performance of characteristics of medical tourism destination | 2.91 | 92  | 0.64| -1.27 | 0.24    | -0.85           | -0.85 | 0.04 | 0.04         |
| Performance of medical services              | 3.17 | 92  | 0.73| 4.83  | 0.000   | 0.37           | 0.06902 | 0.52 |
| Performance of special tourism factors       | 2.92 | 92  | 0.67| -1.12 | 0.265   | -0.78           | -0.21 0.06 |
| total                                        | 3.06 | 92  | 0.57| 1.14  | 0.256   | 0.07            | -0.05 0.18 |

* T test.

| Variables                                      | Importance | Performance | CSI  |
|-----------------------------------------------|------------|-------------|------|
| Performance of characteristics of medical tourism destination | 3.65       | 2.91        | 10.62|
| Performance of medical services               | 4.06       | 3.37        | 13.68|
| Performance of special tourism factors        | 3.78       | 2.92        | 11.04|
| total                                         | 3.83       | 3.06        | 11.72|

Table 4. The Independent T Test Samples Compared to the Mean of Performance by Gender

| Gender                        | N   | Mean   | SD   | P Value | Std. Error Mean |
|-------------------------------|-----|--------|------|---------|-----------------|
| Characteristics of the medical tourism destinations | 1.00 | 39 2.9188 0.71545 0.095 0.11456 |
| 2.00 | 53 2.9112 0.58910 0.08092 |
| Medical services              | 1.00 | 39 3.4278 0.77917 0.574 0.12477 |
| 2.00 | 53 3.3295 0.70884 0.09737 |
| Special factors of tourism    | 1.00 | 39 2.9873 0.70076 0.11221 |
| 2.00 | 53 2.8729 0.65307 0.08971 |
| Total                         | 1.00 | 39 3.1113 0.63825 0.188 0.10220 |
| 2.00 | 53 3.0379 0.53650 0.07369 |
### Table 5. One-Way Analysis of Variance for the Job, Age, Education, and Specialty Variables

| Dependent Variable                  | (I) Job | (J) Job | Mean Difference (I-J) | P value |
|-------------------------------------|---------|---------|-----------------------|---------|
| Characteristics of the medical tourism destinations | 2.00    | 1.00    | -0.07813              | 0.984   |
|                                     | 3.00    | 1.00    | -0.15595              | 0.824   |
|                                     | 4.00    | 1.00    | 0.14773               | 0.887   |
|                                     | 2.00    | 1.00    | 0.07813               | 0.984   |
|                                     | 3.00    | 1.00    | 0.15595               | 0.824   |
|                                     | 4.00    | 1.00    | -0.07813              | 0.984   |
|                                     | 1.00    | 2.00    | -0.16960              | 0.853   |
|                                     | 3.00    | 2.00    | -0.1451               | 0.968   |
|                                     | 4.00    | 2.00    | -0.1451               | 0.968   |
| Medical services                    | 2.00    | 1.00    | -0.33760              | 0.521   |
|                                     | 3.00    | 1.00    | -0.31675              | 0.572   |
|                                     | 4.00    | 1.00    | -0.38324              | 0.537   |
| Special factors of tourism          | 2.00    | 3.00    | -0.00476              | 1.000   |
|                                     | 1.00    | 3.00    | 0.13333               | 0.859   |
|                                     | 4.00    | 3.00    | 0.16395               | 0.878   |
| Total                               | 2.00    | 3.00    | 0.07244               | 0.988   |
|                                     | 1.00    | 3.00    | 0.20577               | 0.798   |
|                                     | 4.00    | 3.00    | 0.04668               | 0.989   |
|                                     | 2.00    | 4.00    | 0.00418               | 0.999   |
|                                     | 3.00    | 4.00    | 0.05985               | 0.992   |
|                                     | 4.00    | 4.00    | 0.05985               | 0.992   |
| Total                               | 2.00    | 4.00    | 0.14179               | 0.879   |
|                                     | 1.00    | 4.00    | 0.15198               | 0.879   |
|                                     | 3.00    | 4.00    | 0.05686               | 0.991   |
|                                     | 4.00    | 4.00    | 0.05686               | 0.991   |
### Table 5. Continued

| Dependent Variable | (I) Education | (J) Education | Mean Difference (I-J) | P Value |
|--------------------|---------------|---------------|-----------------------|---------|
| **Characteristics of the medical tourism destinations** | 1.00          | -0.22727      | 0.997                 |         |
|                    | 2.00          | -0.04779      | 1.000                 |         |
|                    | 3.00          | -0.15278      | 0.998                 |         |
|                    | 4.00          | -0.13894      | 0.998                 |         |
|                    | 0.00          | 0.22727       | 0.997                 |         |
|                    | 2.00          | 0.17949       | 0.996                 |         |
|                    | 3.00          | 0.07449       | 1.000                 |         |
|                    | 4.00          | 0.08833       | 1.000                 |         |
| **Medical services** | 0.00          | 0.04779       | 1.000                 |         |
|                    | 1.00          | -0.17949      | 0.996                 |         |
|                    | 2.00          | -0.10499      | 0.974                 |         |
|                    | 3.00          | -0.09115      | 0.988                 |         |
|                    | 4.00          | -0.01384      | 1.000                 |         |
|                    | 0.00          | 0.15278       | 0.998                 |         |
|                    | 1.00          | -0.07449      | 1.000                 |         |
|                    | 2.00          | 0.10499       | 0.974                 |         |
|                    | 3.00          | 0.01384       | 1.000                 |         |
|                    | 0.00          | 0.13894       | 0.998                 |         |
|                    | 1.00          | -0.08833      | 1.000                 |         |
|                    | 2.00          | 0.09115       | 0.988                 |         |
|                    | 3.00          | -0.01384      | 1.000                 |         |
|                    | 0.00          | 0.19858       | 0.996                 |         |
|                    | 1.00          | -0.10227      | 1.000                 |         |
|                    | 2.00          | -0.36513      | 0.960                 |         |
|                    | 3.00          | 0.04512       | 1.000                 |         |
|                    | 4.00          | 0.06428       | 1.000                 |         |
|                    | 0.00          | 0.26287       | 0.996                 |         |
|                    | 1.00          | -0.02627      | 1.000                 |         |
|                    | 2.00          | 0.10227       | 1.000                 |         |
|                    | 3.00          | 0.21775       | 0.994                 |         |
|                    | 4.00          | 0.01916       | 1.000                 |         |
|                    | 0.00          | 0.19858       | 0.996                 |         |
|                    | 1.00          | -0.06428      | 1.000                 |         |
|                    | 2.00          | 0.30085       | 0.583                 |         |
|                    | 3.00          | -0.01916      | 1.000                 |         |
| **Special factors of tourism** | 0.00          | -0.26287      | 0.996                 |         |
|                    | 1.00          | -0.02627      | 1.000                 |         |
|                    | 2.00          | 0.13513       | 0.960                 |         |
|                    | 3.00          | 0.04512       | 1.000                 |         |
|                    | 4.00          | 0.06428       | 1.000                 |         |
|                    | 1.00          | 0.19858       | 0.996                 |         |
|                    | 2.00          | -0.06428      | 1.000                 |         |
|                    | 3.00          | 0.30085       | 0.583                 |         |
|                    | 4.00          | -0.01916      | 1.000                 |         |
| **Total**        | 1.00          | 0.27500       | 0.994                 |         |
|                    | 2.00          | 0.72349       | 0.601                 |         |
|                    | 3.00          | 0.63548       | 0.705                 |         |
|                    | 4.00          | 0.6693        | 0.678                 |         |
|                    | 0.00          | -0.27500      | 0.994                 |         |
|                    | 1.00          | 0.44849       | 0.898                 |         |
|                    | 2.00          | 0.36048       | 0.950                 |         |
|                    | 3.00          | 0.38893       | 0.937                 |         |
|                    | 0.00          | -0.72349      | 0.601                 |         |
|                    | 1.00          | -0.44849      | 0.898                 |         |
|                    | 2.00          | -0.08801      | 0.988                 |         |
|                    | 3.00          | -0.05956      | 0.998                 |         |
|                    | 0.00          | -0.63548      | 0.705                 |         |
|                    | 1.00          | -0.36048      | 0.950                 |         |
|                    | 2.00          | 0.08801       | 0.988                 |         |
|                    | 3.00          | 0.02845       | 1.000                 |         |
|                    | 0.00          | -0.66393      | 0.678                 |         |
|                    | 1.00          | -0.38893      | 0.937                 |         |
|                    | 2.00          | 0.05956       | 0.998                 |         |
|                    | 3.00          | -0.02845      | 1.000                 |         |
|                    | 0.00          | 0.07171       | 1.000                 |         |
|                    | 1.00          | -0.33104      | 0.974                 |         |
|                    | 2.00          | 0.08832       | 1.000                 |         |
|                    | 3.00          | 0.10880       | 0.999                 |         |
|                    | 4.00          | 0.10880       | 0.999                 |         |
|                    | 0.00          | 0.07171       | 1.000                 |         |
|                    | 1.00          | -0.33104      | 0.974                 |         |
|                    | 2.00          | 0.16003       | 0.996                 |         |
|                    | 3.00          | 0.18052       | 0.993                 |         |
|                    | 4.00          | 0.18052       | 0.993                 |         |
|                    | 0.00          | 0.08832       | 1.000                 |         |
|                    | 1.00          | -0.16003      | 0.996                 |         |
|                    | 2.00          | 0.12017       | 0.981                 |         |
|                    | 3.00          | -0.00485      | 1.000                 |         |
|                    | 4.00          | 0.02048       | 1.000                 |         |
|                    | 0.00          | -0.10880      | 0.999                 |         |
|                    | 1.00          | -0.18052      | 0.993                 |         |
|                    | 2.00          | 0.15052       | 0.889                 |         |
|                    | 3.00          | -0.02048      | 1.000                 |         |
|                    | 4.00          | -0.02048      | 1.000                 |         |
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Table 5. Continued

| Dependent Variable | (I) Specialty | (J) Specialty | Mean Difference (I-J) | P Value |
|--------------------|---------------|---------------|-----------------------|---------|
|                    | 1.00          | 2.00          | -0.08870              | 0.971   |
|                    | 3.00          | 2.00          | -0.13500              | 0.992   |
|                    | 4.00          | 2.00          | -0.13863              | 0.825   |
|                    | 1.00          | 3.00          | 0.08870               | 0.971   |
|                    | 4.00          | 3.00          | -0.04630              | 1.000   |
|                    | 1.00          | 4.00          | -0.04992              | 0.993   |
|                    | 2.00          | 3.00          | 0.013500              | 0.992   |
|                    | 4.00          | 3.00          | -0.00363              | 1.000   |
|                    | 1.00          | 4.00          | 0.1363                | 0.825   |
|                    | 2.00          | 4.00          | 0.1366                | 0.993   |
|                    | 3.00          | 4.00          | 0.00363               | 1.000   |

Medical services

| Specialty          | (I)  | (J)  | Mean Difference (I-J) | P Value |
|--------------------|------|------|-----------------------|---------|
|                    | 2.00 | 2.00 | 0.03065               | 0.999   |
|                    | 1.00 | 3.00 | -0.17197              | 0.989   |
|                    | 4.00 | 3.00 | -0.08889              | 0.963   |
|                    | 1.00 | 4.00 | -0.03065              | 0.999   |
|                    | 2.00 | 4.00 | -0.20261              | 0.983   |
|                    | 1.00 | 4.00 | -0.1954               | 0.939   |
|                    | 3.00 | 2.00 | 0.20261               | 0.983   |
|                    | 4.00 | 2.00 | 0.08307               | 0.999   |
|                    | 1.00 | 3.00 | 0.08889               | 0.963   |
|                    | 4.00 | 2.00 | 0.11954               | 0.939   |
|                    | 3.00 | 2.00 | -0.03070              | 0.999   |

Special factors of tourism

| Specialty          | (I)  | (J)  | Mean Difference (I-J) | P Value |
|--------------------|------|------|-----------------------|---------|
|                    | 2.00 | 2.00 | -0.15472              | 0.878   |
|                    | 1.00 | 3.00 | 0.19250               | 0.980   |
|                    | 4.00 | 3.00 | -0.27469              | 0.354   |
|                    | 1.00 | 4.00 | 0.15472               | 0.878   |
|                    | 2.00 | 4.00 | 0.34722               | 0.899   |
|                    | 1.00 | 4.00 | -0.11996              | 0.917   |
|                    | 3.00 | 2.00 | -0.19250              | 0.980   |
|                    | 4.00 | 2.00 | -0.34722              | 0.899   |
|                    | 1.00 | 3.00 | 0.27469               | 0.354   |
|                    | 4.00 | 2.00 | 0.11996               | 0.917   |
|                    | 3.00 | 2.00 | 0.46719               | 0.770   |

Total

| Specialty          | (I)  | (J)  | Mean Difference (I-J) | P Value |
|--------------------|------|------|-----------------------|---------|
|                    | 2.00 | 2.00 | -0.07093              | 0.979   |
|                    | 1.00 | 3.00 | -0.03816              | 1.000   |
|                    | 4.00 | 3.00 | -0.16740              | 0.656   |
|                    | 1.00 | 4.00 | 0.07093               | 0.979   |
|                    | 2.00 | 4.00 | 0.03277               | 1.000   |
|                    | 1.00 | 4.00 | -0.09648              | 0.933   |
|                    | 3.00 | 2.00 | -0.03277              | 1.000   |
|                    | 4.00 | 2.00 | -0.12925              | 0.990   |
|                    | 1.00 | 3.00 | 0.16740               | 0.656   |
|                    | 4.00 | 2.00 | 0.09648               | 0.933   |
|                    | 3.00 | 2.00 | 0.12925               | 0.990   |

existences of cultural and natural attractions, a large number of medical tourists travel to Iran, especially from neighboring countries. This is in line with the results of a study, in which 133 electronic copies of Australian television programs were collected. It was indicated that Australian media coverage of medical tourism was mainly focused on Asia regarding its capacity to offer cosmetic surgery procedures and therapies that are not generally available in Australia, in geographical point of view.27

The findings of the present study revealed that medical services as the most important component. The medical tourism features can be improved to enhance the performance of Iran’s medical tourism. Our results are in line with the results of the study of Crooks et al in India, who attributed success in medical tourism to advances in informing patients about treatment procedures and treatment facilities.24 The results of a study conducted by Ricafort in Thailand also revealed that the factor of specialized and reputable physicians had the highest score.25 Therefore, it can be concluded that due to the nature of medical tourism, the most important factor is the specialization of medical staff and treatment facilities to attract more tourists. On the other hand, Verulava and Jorbenadze in a study conducted in Georgia found that laws and government support were the most important factors in medical tourism.23 It is based on the current findings revealing that special factors of tourism as the second important component is directly affected by government laws and conditions of the country. The characteristics of tourist destinations are of high importance in attracting medical tourists. These features are more related to the laws of the host country such as political and security stability, laws and regulations, and infrastructure.

Study Limitations

Owing to the COVID-19 pandemic and the difficulty associated with finding medical tourists in the studied region, this study failed in considering the views of tourists. Therefore, the aspect of supply rather than demand can be noted as a limitation of the present research.

Conclusion

Health tourists travel from one country to another to access the medical services of the destination country, such as performing cosmetic surgeries, organ transplants, or other medical services. This trip is not irrelevant to the tourism activities of the destination. The patient is in direct contact with the tourism process of the destination country during his/her treatment. Engagement with travel agencies, accommodation facilities, and the use of places of interest and entertainment, all constitute medical tourism. Today, current medical tourists select Iran because of both the presence of professional medical staff and low costs of services due to the price competitiveness. Managers and planners in Iran and other medical tourism destinations can make better decisions in the future, by understanding the factors related to the competitiveness of this considerable market of tourism. As findings revealed, tourism destination characteristics have
Research Highlights

What Is Already Known?
- Medical tourism as a type of tourism is one of the phenomena of the present era of tourism that has received much attention in recent years. On the other hand, competitiveness is one of the most important concerns of businesses in today's dynamic and competitive environment.
- Medical tourism in Iran has been noticed for many years by various patients from neighboring countries, especially from the Persian Gulf countries, due to their cultural and ethnic proximity.
- Given its existing advantages in the field of medical tourism, Iran can take advantage of the opportunities to achieve a competitive position in the region.

What Does This Study Add?
- This study provides an insight into the importance and quality of performance of the factors affecting the competitiveness of medical tourism in Iran.
- It is the first research on Iran's health tourism from the perspective of competitiveness.

less favorable conditions. Hence, it is necessary to adopt appropriate strategies to enhance the quality of the factors in this dimension. It is also true for special factors of tourism, which can be improved to increase the accommodation of tourists, as well as medical tourists' expenditures. Although the performance of medical services has better conditions, additional efforts are required to keep and enhance the present quality of medical services.

Authors' Contribution
SPB and MS conceived the main idea. ZN and MS researched the material for the study. ZN and AI prepared the first draft of the manuscript, which was reviewed, translated, and edited by JA, SPB, and ZN. All authors approved the final version of the manuscript.

Conflicts of Interest Disclosures
The authors declare that they have no conflict of interest.

Ethical Approval
Current study was approved by University of Science and Culture, Tehran, Iran.

Funding/Support
This study did not receive any financial support.

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