



A Systematic Review of the Factors Affecting the Growth of Medical Tourism in Iran



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Received October 4, 2019; Accepted February 24, 2020; Online Published March 10, 2020

Abstract

Introduction: Planning in the field of medical tourism is of particular importance. The main objective of this research was to identify and analyze the factors affecting the growth of medical tourism in Iran. It could be a small step toward promoting entrepreneurship and increasing non-oil revenues in the country.

Methods: Studies published in the Persian and English language during the years 2006-2019 in Science Direct, ProQuest, Springer, Medline, Scopus, Ovid, and SID databases were reviewed, and the findings were then compared.

Results: A total of 75 articles out of 2631 unique publications were included in this study. Most articles reported studies performed for all patients, including the whole country (Iran) (n=22, 30%), Shiraz only (n=11, 15%), Tehran only (n=11, 15%), Mashhad only (n=6, 8%), Isfahan only (n=5, 6%), and Ardabil only (n=4, 5%).

Conclusion: Given the history of Iranian hospitals in attracting foreign patients and the analysis of their status, there are many limitations in achieving a proper standing in the medical tourism industry. Strategies offered by various managers and authorities in tourism can lead to increased attraction of medical tourists to public and private hospitals in Shiraz, relying on the capabilities and potential of Shiraz and its health sectors, including climate and nature, cultural and historical attractions, renowned practitioners, advanced equipment, facilities, and methods, and thereby generating more foreign exchange earnings and employment.

Keywords: Medical Tourism, Hospitals, Growth and Development, Iran

Citation: Gholami M, Keshtvarz Hesam Abadi AM, Milady S, Gholami M. A systematic review of the factors affecting the growth of medical tourism in Iran. Int J Travel Med Glob Health. 2020;8(1):1-12. doi:10.34172/ijtmgh.2020.01.

Introduction

According to the definition of the United Nations World Tourism Organization (UNWTO), a tourist refers to a person who travels and stays away from his or her usual environment for more than 24 hours and less than one year for various purposes, including recreation, rest, or business.¹ Another reason for tourists is the search for healthcare that is known as a branch of tourism and has a long history.² In its broadest conceptualization, medical tourism refers to “travel with the explicit purpose of obtaining health services abroad”.³ Medical tourism today is one of the most important indicators of the tourism industry and has many socio-economic benefits. The integration of medical tourism with consumer health guidance programs is potentially a pivot for accelerating the development of medical tourism and economic development.^{4,5} Medical tourism has experienced remarkable growth in the last two decades.^{6,7} Various studies have suggested that the main reasons for this development are as follows: increasing

waiting lists in advanced countries,⁸⁻¹¹ increasing international exchange rates, the Internet (With the development of the communications network, new companies have been formed as the interface between international patients and the hospital network, which provides basic information to the patients.), the low cost of services in developing countries,¹¹⁻¹⁴ and modern technologies and equipment that fit into new health services.¹⁵ In Iran's fourth development plan of Article 87, the ground for effective participation in world markets and the transformation of the Islamic Republic of Iran into a center for addressing the health and medical needs of the region has been emphasized. Considering the fact that Iran has neighboring countries that have lower therapeutic and medical standards, with the help of experienced medical staff and competent therapeutic centers, Iran can be one of the best destinations for medical tourists.

It is estimated that the income of every case of medical tourism is three times that of a typical tourist.¹⁶ In 2012, 3.3

million tourists entered the country, and 687 500 people were employed in the industry.¹⁷ Therefore, planning based on the priorities specified in the field of medical tourism are very important. The main objective of this research was to identify and analyze the factors affecting the growth of medical tourism in Iran.

Methods

Search Strategy

In this systematic review study, studies published in the Persian and English languages during the years 2006-2019 in the databases of Science Direct, ProQuest, Springer, Medline, Scopus, Ovid, and SID were reviewed, and the findings were then compared. Keywords for the search included tourism, medical tourism, and health tourism, specifically in Iran. The text of the reviewed articles and their results were extracted by the researchers. Finally, the results of the studies were summarized and reported.

Article Selection

The inclusion criteria for the present study were: 1. use of the keywords designated for the title and abstracts of articles, 2. completed research, 3. research conducted on the subject of Iran, 4. English or Persian language articles, 5. use of quantitative and qualitative research methods, and 6. Including factors or programs on the topic of tourism in the field of health. The exclusion criteria included: 1. abstracts

only, 2. studies published in other countries despite having an Iranian author, and 3. studies published in other languages that were unfamiliar to the researchers. Duplicate studies were also excluded. Studies that met the inclusion criteria were coded and compared.

Figure 1 displays the process of the study selection. Overall, the literature search identified 2191 records of databases. After excluding duplicate articles and articles with unrelated topics, 470 records remained. Based on a review of the abstracts, 182 articles remained. A total of 107 articles were excluded due to the lack of stating the factor and development plan. Ultimately, 75 articles were entered into the current study.

Results

The characteristics of the articles are summarized in Table 1. Most articles were original research studies (n=61, 81%); non-original research articles (n=14, 19%) consisted of reviews (n=7, 9.5%) and case studies (n=7, 9.5%). Most articles reported studies performed on all patients including the whole country (Iran) (n=22, 30%), Shiraz only (n=11, 15%), Tehran only (n=11, 15%), Mashhad only (n=6, 8%), Isfahan only (n=5, 6%), and Ardabil only (n=4, 5%).

Seven papers written between 2008 and 2011, 26 papers written between 2012 and 2014, and 41 articles written between 2015 to 2018 indicated that more attention has been paid to medical tourism in Iran in recent years. Eighteen articles cited cost factor and 11 articles cited medical equipment

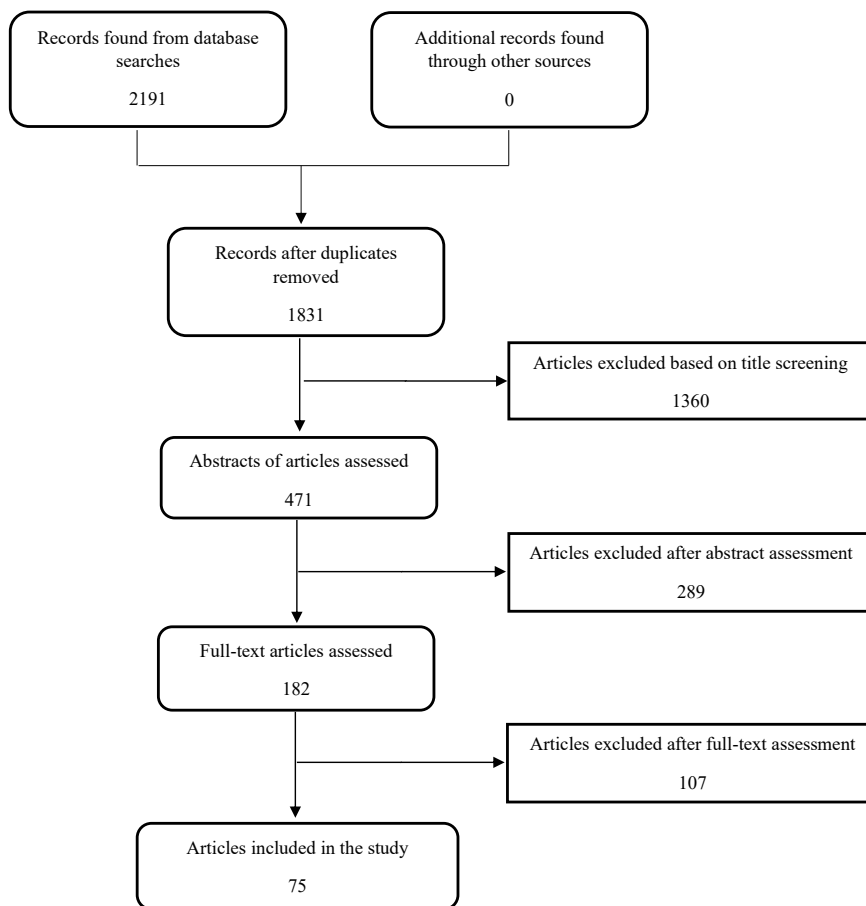


Figure 1. Flow Chart of the Article Selection Process.

Table 1. Details of Articles Included in the Review

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Kazemi et al ¹⁸	2008	Descriptive-survey	Whole country (Iran)	The proper functions of responsible organizations; the special geographical location of Iran, being as an Islamic country	-	-
Zia Sheikholeslami et al ¹⁹	2010	Descriptive	Rafsanjan	-	-	Enhance the English language among medical staff; increase investment; establish medical tourism clinics in the vicinity of hot springs.
Tourani et al ²⁰	2010	Cross-sectional survey	Whole country (Iran)	-	-	The government should encourage and support the private sector to act in all areas of this industry from participating in policy-making and strategic planning to marketing and introducing Iran's health services to target countries, act as medical tourism facilitators, and provide health and medical services.
Jafary et al ²¹	2011	Review	Whole country (Iran)	-	-	The presence of accredited foreign media and reporting on the capabilities of the country's medical community; providing the facilities, equipment, and services needed by this group of tourists.
Moghimehfar et al ²²	2011	Descriptive-survey	Isfahan	Legal, moral, and religious restrictions	Providing an appropriate environment where infertile couples' religious beliefs are respected and considered during the treatment of infertility through ART	-
Khodayari et al ²³	2011	Cross-sectional survey	Tehran	Access to and continuity of treatment, patient evaluation, anesthesia and drug management, patient and family rights, patient care, and patient education	-	-
Nasiripour et al ²⁴	2011	Cross-sectional survey	Tehran	Medical equipment, information and communication technology, more competitive pricing of medical services than other countries, and clearing the cost of foreign patients' requests.	-	-
Sadr Momtaz et al ²⁵	2011	Cross-sectional survey	Tehran	-	Public infrastructure development strategy; Human resources development strategy; Information and Marketing System Development Strategy; Product Development Strategy	-
Izadi et al ²⁶	2012	Descriptive review	Whole country (Iran)	Expert physicians, up-to-date medical technology, natural healing regions to attract health tourists	Comprehensive planning and operational requirements of field units and provide leadership	-
Ferdosi et al ²⁷	2012	Review and qualitative	-	-	-	Conducting accurate and comprehensive research in Iran

Table 1. Continued

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Jabbari et al ²⁸	2012	Qualitative Cross-sectional survey	Whole country (Iran)	-	Public-Private Partnerships; Effective Advertising; Infrastructure Development; International Accreditation of Health Care Institutions; Human Resource Development	-
Zia Sheikholeslami et al ²⁹	2012	Cross-sectional survey	Qom	Ability to cure complex diseases; high quality and low cost; skilled human resources	-	-
Jabbari et al ³⁰	2012	Qualitative	Isfahan	Demand capability; environmental capability; manpower capability; infrastructure capability; cross-sector collaboration	-	Competitive and Differential Status; Promotional Strategies
Tabibi et al ³¹	2012	Cross-sectional survey	Tehran	Information and attraction mechanisms for medical tourists, including media advertising, brochures, guides, television programs, electronic methods, and tourism organizations	-	-
Shaarbafchizadeh et al ³²	2012	Qualitative	Whole country (Iran)	Telemedicine services; electronic funding network; patient rights laws	Proper telecommunication infrastructure; cross-sector collaboration	-
Izadi et al ³³	2012	Review, qualitative	Whole country (Iran)	Expert physicians; technology; natural treatment areas	-	Coordination of organizations responsible for medical tourism and planning
Delgoshaei et al ³⁴	2012	Review, qualitative	Whole country (Iran)	Basic infrastructure and treatment	Government support; international service centers; integrated marketing	Medical Tourism Development Program; Inter-sectorial collaboration; coordination at the macro- and operational level
Arabshahi korizi et al ³⁵	2013	Qualitative	Whole country (Iran)			
Hadizadeh Moghadam et al ³⁶	2013	Cross-sectional survey	Tehran	Cost of treatment; waiting time; diversification; medical equipment; sociological factors; quality of service; political and security conditions; ease of travel; tourist attractions	-	-
Zare Mehrjerdi et al ³⁷	2013		Whole country (Iran)	-	Creating infrastructure; equipping airports; repairing transportation systems; psychological and social security for tourists; advertising and information	Medical Tourism Master Plan
Keshavarz et al ³⁸	2013	Cross-sectional survey	Isfahan	Cost of services; proper and consistent advertising	Develop the infrastructure needed to provide welfare; cultural, social, and political factors	-
Jabbari et al ³⁹	2013	Qualitative	Isfahan	-	Design of Medical Tourism Stakeholders Network	Formation of Provincial Council for Medical Tourism; defining the role and duties of each beneficiary
Hajinejad et al ⁴⁰	2013	Qualitative	Shiraz	Medical and service employment; modern advertising	Bilateral agreements; Insurance industry support for tourism satisfaction and attraction; Coordination among trustee organizations; Information Technology; Private Sector Capital	-

Table 1. Continued

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Rokni et al ⁴¹	2013	Cross-sectional survey	Shiraz	-	Cooperation with countries in the region; Religious and cultural proximity; Effective advertising; Periodic evaluations	-
Mahdavi et al ⁴²	2013	Review qualitative	Whole country (Iran)	-	Branding; coordination between stakeholders; provision of coherent services	-
Jabbari et al ⁴³	2013	Cross-sectional survey	Shiraz	-	Effective advertising; Infrastructure development; Quality management systems	Medical tourism strategic plan
Tabatabaeei nasab et al ⁴⁴	2014	Descriptive-survey	Yazd	Experienced medical staff; environmental status; cost	-	Increasing marketing for medical tourism
Mesbahi et al ⁴⁵	2014	Qualitative	Whole country (Iran)	-	Using web information systems to introduce service providers; building a relationship between service provider and customer	-
Goodarzi et al ⁴⁶	2014	Qualitative	Shiraz	Price of treatment and tourist services; quality of treatment and tourist services; treatment and tourist facilities; capabilities and equipment; ICT and culture	-	The high quality of treatment and tourist services; applying capabilities and modern equipment compatible with universal standards in treatment and tourist domain; applying ICT in advertising and marketing; promoting the culture of accepting tourism
Noori Hekmat et al ⁴⁷	2014	Cross-sectional survey	Isfahan	Medical equipment and web site; having a translator; adequate and well-equipped hospital beds	-	-
Goodarzi et al ⁴⁸	2014	Cross-sectional survey	Shiraz	Price transparency of health services; quality of health services; facilities; ICT	-	-
Goodarzi et al ⁴⁹	2014	Cross-sectional survey	Shiraz	Quality of service; culture; facilities; price; ICT	-	-
Mir et al ⁵⁰	2014	Cross-sectional survey	Zahedan	High-quality new equipment; recreational and tourist attractions; specialized manpower; patient welfare facilities	-	-
Ayoubian et al ⁵¹	2014	Cross-sectional survey	Tehran	Quality and cost of service	Media advertisements; descriptions of equipment and manpower capabilities	Coherent policymaking
Taj Zadeh namen et al ⁵²	2015	Descriptive-survey	Tehran	Validity of information; characteristics of treatment centers; website specifications; transparency in information; advertising policies	-	-
Safaeeur et al ⁵³	2015	Cross-sectional survey	Whole country (Iran)	-	Variety of specialized services, public and private sector coordination	Strategies to reduce costs and increase quality in comparison with countries in the region, Coherent decision-making and service delivery system
Hosseini et al ⁵⁴	2016	Descriptive-survey	Tehran	Therapeutic care and facilities; clarity of medical costs	-	-
Karami et al ⁵⁵	2016	Descriptive-survey	Mashhad	Advanced medical facilities and equipment; the skill and expertise of medical staff; religious beliefs and opinions	-	-

Table 1. Continued

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Lajevardi et al ⁵⁶	2016	Descriptive-survey	Whole country (Iran)	Motivational factor; destination image	-	-
Mahmoudifar et al ⁵⁷	2016	Descriptive-analytical	West Azerbaijan	Public infrastructure; general conditions to attract tourists; legal terms; political conditions; economic conditions; cultural conditions	Attention to elements such as the appropriate conditions to attract medical tourism based on political, legal, and regional economic development.	-
Bishami et al ⁵⁸	2016	Descriptive-survey	Tabriz	Famous doctors, equipment and facilities, cost	Creating an extensive network of marketing	Enhance the English language among medical staff
Nemati et al ⁵⁹	2016	Survey	Ardabil	Barriers to information systems and marketing; infrastructural barriers; barriers to product development and quality of service; administration's attitude barriers; barriers of manpower; socio-cultural barriers; economic barriers	-	Use of domestic and foreign media to promote medical tourism capabilities; Attracting investment and initiatives to develop and increase the capacity of hospitals
Ranjnoosh et al ⁶⁰	2016	Descriptive-survey	Whole country (Iran)	-	Development of medical centers based on international standards; Improving Human Resource Communication Skills; Implementation of integrated and systematic management of service delivery	-
Mirbolouk et al ⁶¹	2016	Descriptive-survey	Guilan	Perceived medical quality; perceived service quality; perceived reputation; religion	Improving medical infrastructure; increasing medical and tourism quality; providing correct and comprehensive facilities for patients and their companions	-
Samadbeik et al ⁶²	2016	Qualitative	Shiraz	-	-	Designing proper medical tourism websites for hospitals
Taghi Zadeh Yazdi et al ⁶³	2016	Content analysis	-	Medical tourism facilitation websites; contents introducing medical options; introducing website facilities; introducing medical tourism; introducing website; patient and audience comments	-	-
Badiei et al ⁶⁴	2016	Qualitative	Golestan	-	Increasing private participation; establishing hospitals and clinics	Public sector participation; support from the private sector
Hamidzadeh et al ⁶⁵	2016	Case study	Tehran, Mashhad, Shiraz	The success of surgery; correct diagnosis and prescription; right to visit and medication costs; visa; residence; hospital and surgery costs; visitation; operating room equipment; amenities	-	-
Nikraftar et al ⁶⁶	2016	Cross-sectional survey	Shiraz	Regulation	Providing services and human resources	Policies needed to improve quality; adherence to international standards
Hajinejad et al ⁶⁷	2016	Cross-sectional qualitative	Mashhad	Different infrastructure and specialties	Establishing bilateral relations between the countries of the region	Supporting the NGO sector; investment
Mosavi-negad et al ⁶⁸	2016	Cross-sectional	Tehran	Diverse specialties; up-to-date equipment; minimum waiting times; human and physical resources	Massive investment	-

Table 1. Continued

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Taghvaei et al ⁶⁹	2016	Cross-sectional qualitative	Shiraz	-	Increasing the quality and variety of health services; electronic and non-electronic advertising; cooperation with the Islamic countries in the region; obtaining international approvals; foreign language training	-
Azizi et al ⁷⁰	2016	Cross-sectional survey	Yazd	Costs; advertising; laws; medical needs; human resources	-	-
Maleki et al ⁷¹	2016	Cross-sectional survey	Mashhad	Information; electronic acceptance; financial exchange system; foreign languages in hospital support; complete health tourism packages; visa; inland transportation	-	-
Maboodi et al ⁷²	2016	Cross-sectional survey	Whole country (Iran)	Cost of medical services; quality; human resources; medical equipment	-	-
Anabestani et al ⁷³	2016	Cross-sectional survey	Mashhad	Quality of health services; information; interagency coordination	Construction of medical tourism services companies	-
Nemati et al ⁵⁹	2016	Cross-sectional survey	Ardabil	Quality of service; human resources	-	Information and marketing systems; policymaking and legislation; infrastructure
Mahmoudifar et al ⁷⁴	2016	Cross-sectional survey	West Azerbaijan	-	Coordination of effective organizations	Decision-making and planning departments
Rezaee et al ⁷⁵	2016	Qualitative survey	Whole country (Iran)	Quality of service; highly specialized services; cost; proper equipment	-	A comprehensive and coherent program of medical tourism
Faridi masuleh ⁷⁶	2017	Qualitative	Whole country (Iran)	-	Supporting private investment	-
Jabbari et al ⁷⁷	2017	Cross-sectional	Shiraz	-	-	More advertising of hospitals' quality of services
Abouhashem Abadi et al ⁷⁸	2017	Descriptive; exploratory	Yazd	-	Construction of medical tourism companies or encouragement of private sector investment; Preparation of various programs; Addressing issues related to medical tourism; Developing medical tourism service standards by specialized firms providing tourism services; creating an extensive network of marketing and sales	Training staff related to foreign patients by international approvals
Azimi et al ⁷⁹	2017	Cross-sectional	Mashhad	-	It is suggested that advertising practices be revised and novel methods adopted to appeal to a greater range of potential tourists.	Senior executives of hospitals are recommended to account for the safety, comfort, and well-being of patients as basic requirements of marketing.
Haji Ahmadi et al ⁸⁰	2017	Qualitative	Whole country (Iran)	Marketing of medical tourism; having a relative competitive advantage	Service and welfare factors; advertising factors; physical factors; political and geographical factors; human factors.	-

Table 1. Continued

Author	Year	Type of Research	Place of research	The Most Important Factors, Suggestions, and Programs for the Development of Medical Tourism in Iran		
				Factors	Suggestions	Programs
Azimi et al ⁸¹	2017	Descriptive	Mashhad	Services; place; promotion; price; people; process; facilities	It is necessary to pay further attention to the adoption of appropriate strategies to recruit skilled people, provide services based on international standards, and change processes in hospitals.	Promote competition; adopting new advertising media such as websites and mass media; special attention paid to the revision of fee.
RahimiZarchi et al ⁸²	2017	Qualitative	Shiraz	Cost; advertisements; good weather and nature; cultural and historical attractions; famous doctors; equipment and facilities; advanced and up-to-date therapies	-	-
Naami et al ⁸³	2017	Review	Tehran	-	-	There were no transparency programs or suitable physical areas; Tehran University Medical Science needs comprehensive planning; supportive infrastructure for foreign patients; correction of the transportation system; improved marketing
Najafi et al ⁸⁴	2017	Review	Whole country (Iran)	Medical costs; quality of medical services; service coverage; medical staff; Health system infrastructure, accommodations; travel arrangements; marketing; tourist attractions; economic situation of countries; social background of countries; security; managers' commitment	-	-
Danial et al ⁸⁵	2017	Review and qualitative	Whole country (Iran)	The importance of training in medical tourism	Provision of equipment and necessary training, including an introduction to medical tourism and the medical tourist; the medical histories of medical tourists; the association of staff with medical tourism	-
Najafi Nasab et al ⁸⁶	2018	Survey	Whole country (Iran)	Policies; advertising and marketing; the capacities of medical and healthcare services; costs; destination characteristics	-	The Ministry of Health and Medical Education, the Iranian Cultural Heritage and Tourism Organization, and the Medical Council of the Ministry of Foreign Affairs should make appropriate policies to stimulate the entry of foreign medical tourists to the country.
Momeni et al ⁸⁷	2018	Qualitative	East Azerbaijan	Marketing; international issues; culture; transfer; brokerage; management and policy problems	Provision of the necessary context for the participation and investment of the private sector in the field of medical tourism.	-
Sadeh et al ⁸⁸	2018	Descriptive-survey	-	Physical environment and convenience; pharmaceutical services; treatment services from the medical team; technical care competencies; costs; hospitality services	-	-
Asgarnezhad Nouri et al ⁸⁹	2018	Descriptive and correlational	Ardabil	Enjoyment; costs; risk effects	-	Provision of standard services; building appropriate infrastructure for medical tourists to create a positive image
Ebrahimi et al ⁹⁰	2018	Descriptive-survey	Tehran	-	-	Providing a regular and well-designed program for medical tourists to know and plan properly
Hoseinpour et al ⁹¹	2018	Descriptive-analytical	Ardebil	Country status; condition of hospitals; medical team; mineral spas	The authorities in the field of health and tourism help more in the development of this industry by providing the necessary substructures of this sector and execution of macro politics.	-

as influencing factors in attracting medical tourism. Most articles cite advertising, marketing, and updated medical procedures as planning for these factors.

Discussion

The present study attempted to find a set of strategies and programs for the development of medical tourism in hospitals affiliated with the Shiraz University of Medical Sciences. Based on the present findings, important factors such as policymaking, coherent planning, and informing about capabilities and capacities through appropriate information channels will play an important role in the development of medical tourism. In general, information plays an important role in attracting medical tourists. Hospitals and medical centers, insurance companies, tours, intermediaries, and settlement centers play important roles in providing information. In other words, there should be a network of communication between various institutions in medical tourism, and the information and marketing method should be coordinated based on the cooperation of these institutions. The proper information process attracts tourists. Azimi et al⁸¹ and Alizadehsani⁹² pointed to the role of advertising and information on the development of medical tourism in their research and suggested that countries must develop a regular system of marketing and information activities to be successful in tourism. In studies conducted by Rokni et al,⁴¹ Jabbari et al,⁴³ Goodarzi et al,⁴⁶ Ayoubian et al,⁵¹ and Taghi Zadeh Namen et al,⁵² effective advertising was reported as one of the important factors in attracting medical tourists.

Viladrich and Baron-Faust's⁹³ research in Argentina showed that internet marketing has made the country a hub of cosmetic surgeries. In studies conducted by Momeni et al.⁸⁷ Najafi Nasab et al⁸⁶ and Haji Ahmadi et al⁸⁰ marketing was mentioned as one of the effective factors in attracting medical tourists. Yang⁹⁴ also conducted a study on the factors influencing medical tourism marketing from the perspective of practitioners in this field, including tourism agencies and medical institutions in Taiwan, which showed that among the 15 factors studied, branding was the first priority; factors regarding medical facilities and the quality of medical services were also top priorities.

Zuhri et al⁹⁵ concluded that the perceived quality of medical services and their perceptual value, trust, mental image, and competitiveness can directly influence the choice of destination and tourists' loyalty.

In addition to these factors, there are the physical and infrastructural factors in research that are undeniable necessities for medical tourism. The quality of a country's infrastructure is one of the most important factors contributing to the development of medical tourism. In studies conducted by Sadr Momtaz et al,²⁵ Mahmoudifar et al,⁷⁴ Naami et al,⁸³ Najafi et al,⁸⁴ and Asgarnezhad Nouri et al,⁸⁹ infrastructure is mentioned as one of the factors effective in attracting medical tourists.

In studies conducted by Sadeh et al,⁸⁸ Najafi Nasab et al,⁸⁶ and Bishami et al,⁵⁸ cost is one of the effective factors in attracting medical tourists.

Review Highlights

What Is Already Known?

In Iran, little attention is paid to medical tourism. Identification and planning factors based on the priorities specified in the field of medical tourism are very important.

What This Study Adds?

Strategies offered by various managers and authorities in tourism can lead to the increased attraction of medical tourists to public and private hospitals in Shiraz, relying on the capabilities and potential of Shiraz, and thereby generating more foreign exchange earnings and employment.

Conclusion

Today, medical tourism in the world is a developing industry with a significant turnover. Iran has the potential to make the most of this opportunity. Strategies offered by various managers and authorities in tourism can lead to increased attraction of medical tourists to public and private hospitals in Shiraz, relying on capabilities and potential of Shiraz and its health sectors, including climate and nature, cultural and historical attractions, renowned practitioners, advanced equipment, facilities, and methods. Thereby, more foreign exchange earnings and employment will be generated.

Authors' Contributions

MG: Conceptualization, writing, reviewing, and editing the manuscript; supervision. AMKHA: Conceptualization, writing the original draft of the article, writing, reviewing, and editing the manuscript; supervision. SM: Writing, reviewing, and editing the manuscript. MG: Writing, reviewing, and editing the manuscript.

Conflict of Interest Disclosures

The authors have no conflicts of interest.

Ethical Approval

Not applicable.

Funding/Support

None.

Acknowledgments

The authors would like to thank Shiraz University of Medical Sciences, Shiraz, Iran, the Center for Development of Clinical Research of Nemazee Hospital, and Dr. Nasrin Shokrpour for her editorial assistance.

Reference

1. Baker DM. Medical tourism development, challenges and opportunities for Asia. *Almatourism-Journal of Tourism, Culture and Territorial Development*. 2015;6(12):193-210. doi:[10.6092/issn.2036-5195/5315](https://doi.org/10.6092/issn.2036-5195/5315).
2. Smith MK, Puczkó L. *Health, Tourism and Hospitality: Spas, Wellness and Medical Travel*. London: Routledge; 2014.
3. Ramirez de Arellano AB. Patients without borders: the emergence

- of medical tourism. *Int J Health Serv.* 2007;37(1):193-198. doi:[10.2190/4857-468g-2325-47uu](https://doi.org/10.2190/4857-468g-2325-47uu).
4. Sheikholeslami N, Rezaeian M, Bahsoun M, Taghavipoor M. Medical tourism: the view of Rafsanjan Medical University staff. *Iranian Journal of Epidemiology.* 2010;5(4):31-36.
 5. Williams D, Seus J. Medical tourism: implications for participants in the US health care system. Retrieved January. 2007;15:2013.
 6. Khan MJ, Chelliah S, Haron MS. Medical tourism destination image formation process: a conceptual model. *Int J Healthc Manag.* 2016;9(2):134-143. doi:[10.1080/20479700.2016.1142046](https://doi.org/10.1080/20479700.2016.1142046).
 7. Esiyok B, Çakar M, Kurtulmuşoğlu FB. The effect of cultural distance on medical tourism. *J Dest Mark Manage.* 2017;6(1):66-75. doi:[10.1016/j.jdmm.2016.03.001](https://doi.org/10.1016/j.jdmm.2016.03.001).
 8. Cohen ECE. Medical tourism in Thailand. *AU-GSB e-journal.* 2008;1(1):24-37.
 9. Hay B. From a Medical Tourism Hospital to a National Health Service Hospitak in Eight Easy Years! A Case Study of the Golden Jubilee Hospital in Glasgow, Scotland. Queen Margaret University; 2010.
 10. Horowitz MD, Rosensweig JA, Jones CA. Medical tourism: globalization of the healthcare marketplace. *MedGenMed.* 2007;9(4):33.
 11. Al Khaja KA, Sequeira RP, Damanhori AH. Polypharmacy associated with medical tourism: a critique on drug therapy. *Int J Clin Pharm.* 2011;33(1):61-65. doi:[10.1007/s11096-010-9477-7](https://doi.org/10.1007/s11096-010-9477-7).
 12. Hopkins L, Labonté R, Runnels V, Packer C. Medical tourism today: what is the state of existing knowledge? *J Public Health Policy.* 2010;31(2):185-198. doi:[10.1057/jphp.2010.10](https://doi.org/10.1057/jphp.2010.10).
 13. Bauer JC. Medical tourism: wave of the future in a world of hurt? *Healthc Financ Manage.* 2009;63(8):36-38, 40, 42.
 14. Courtney L, Valverde L. Potential Impacts of Medical Tourism on Health Care in Costa Rica. Costa Rica: Instituto de Investigaciones Sociales, Universidad de Costa Rica; 2010:1-10.
 15. Unti JA. Medical and surgical tourism: the new world of health care globalization and what it means for the practicing surgeon. *Bull Am Coll Surg.* 2009;94(4):18-25.
 16. Delgoshaei B, Ravaghi H, Abolhassani N. Importance-Performance analysis of medical tourism in Tehran province from medical tourists and medical services providers' perspective. *Hospital.* 2012;11(1):63-72. [Persian].
 17. Rahimpour A. Statistical analysis of the world tourism industry, future markets and the position of Iran. *Journal of Tourism.* 2012;1(1):1-18. [Persian].
 18. Kazemi Z. Study of the Effective Factors for Attracting Medical Tourism in Iran. Luleå University of Technology; 2008.
 19. Zia Sheikholeslami N, Rezaeian M, Bahsoun M, Taghavipoor M. Medical tourism: the view of Rafsanjan medical university staff. *Iran J Epidemiol.* 2010;5(4):31-36. [Persian].
 20. Tourani S, Tabibi SJ, Tofighi SH, Shaarbafchi Zadeh N. Medical tourism in Iran: analysis of opportunities and challenges with MADM approach. *Res J Biol Sci.* 2010;5(3):251-257. doi:[10.3923/rjbsci.2010.251.257](https://doi.org/10.3923/rjbsci.2010.251.257).
 21. Jafari H, Bakhtiari E, Keshkar M. Medical Tourism and its Importance in Iran Health System. The First International Conference on Tourism Management and Sustainable Development. Fars, Iran: Islamic Azad University Marvdasht Branch; 2011.
 22. Moghimehfar F, Nasr-Esfahani MH. Decisive factors in medical tourism destination choice: a case study of Isfahan, Iran and fertility treatments. *Tour Manag.* 2011;32(6):1431-1434. doi:[10.1016/j.tourman.2011.01.005](https://doi.org/10.1016/j.tourman.2011.01.005).
 23. Khodayari R, Tourani S, Qaderi A, Salehi M, Jafari H. Capabilities assessing of teaching hospitals in Iran university of medical sciences in attracting medical tourists according to JCI patient-oriented standards. *Hospital.* 2011;9(3):51-56. [Persian].
 24. Nasiripour AA, Salmani L. The role of Tehran's hospitals capability in development of medical tourism. *Hospital.* 2011;9(3):57-68. [Persian].
 25. Sadr Momtaz N, Agharahimi Z. Medical tourism industry in Iran: strategies for development. *Health Inf Manag.* 2011;7:516-524. [Persian].
 26. Izadi M, Saadat SH, Ayoubian A, Dehaghi ZH, Karbasi MR, Jalali AR. Health tourism in Iran; identifying obstacles for development of this industry. *Int J Travel Med Glob Health* 2013;1(2):89-94.
 27. Ferdosi M, Jabbari A, Keyvanara M, Agharahimi Z. A systematic review of publications studies on medical tourism. *J Educ Health Promot.* 2013;2:51. doi:[10.4103/2277-9531.119037](https://doi.org/10.4103/2277-9531.119037).
 28. Jabbari A, Delgoshaei B, Mardani R, Tabibi SJ. Medical tourism in Iran: Issues and challenges. *J Educ Health Promot.* 2012;1:39. doi:[10.4103/2277-9531.104809](https://doi.org/10.4103/2277-9531.104809).
 29. Zia Sheikholeslami N, Bahsoun M, Zia Sheikholeslami N S. Medical tourism in Iran: attitude and challenges. *Electron Physician.* 2012;4(2):511-515.
 30. Jabbari A, Agharahimi Z, Seid Moradi Z, Ferdosi M. Potentials of cosmetic surgery tourism in Isfahan: a qualitative study. *Health Inf Manag.* 2012;9(5):686-696. [Persian].
 31. Tabibi SJ, Nasiripour AA, Ayoubian A, Bagherian Mahmoodabadi H. The relation between information mechanisms and medical tourist attraction in hospitals of Tehran, Iran. *Health Inf Manag.* 2012;9(3):416-423. [Persian].
 32. Shaarbafchi Zadeh N, Azami S, Bastani P. Opportunities and challenges against cross border supply of health services in Iranian health sector: a qualitative approach. *Razi Journal of Medical Sciences.* 2012;19(100):1-11. [Persian].
 33. Izadi M, Ayoubian A, Nasiri T, Joneidi N, Fazel M, Hosseinpourfard MJ. Situation of health tourism in Iran opportunity or threat. *Journal of Military Medicine.* 2012;14(2):69-75. [Persian].
 34. Delgoshaei B, Jabbari A, Farzin M, Shaarbafchi Zadeh N, Tabibi SJ. Current medical tourism in Iran: a case study. *Payesh.* 2012;11(2):171-179. [Persian].
 35. Arabshahi Korizi A, Arianfar M. Health tourism and medical tourism capabilities in Iran. *Geographical Journal of Tourism Space.* 2014;3(9):133-152. [Persian].
 36. Hadizadeh Moghadam A, Zahediannejad M, Ghanbarzadeh Miyandehi R, Fakhmanesh S. Pattern of factors affecting the motivation of medical tourists to enter Iran. *Management Perspective.* 2013;12(3):59-79. [Persian].
 37. Mehrjerdi YZ, Faregh F. Modeling medical tourism in Iran using the system dynamic approach. *Iranian Journal of Management Sciences.* 2013;8(31):105-130. [Persian].
 38. Keshavarz H, Jabarifar SE, Hosseinpour K. Evaluation of social, cultural and infrastructural factors influencing the development of dental tourism in Isfahan, Iran. *Journal of Isfahan Dental School.* 2013;8(7):684-694. [Persian].
 39. Jabbari A, Ferdosi M, Keyvanara M, Agharahimi Z. Stakeholders' analysis of the medical tourism industry: development strategies in Isfahan. *J Educ Health Promot.* 2013;2:44. doi:[10.4103/2277-9531.117410](https://doi.org/10.4103/2277-9531.117410).
 40. Hajinejad A, Eslamfard F. Formulating strategies for the development of treatment tourism in Shiraz (Iran) using a strategic planning approach (SWOT). *Journal of Rafsanjan University of Medical Sciences.* 2013;12(8):641-654. [Persian].
 41. Rokni L, Pourahmad A, Moteiey Langroudi MH, Rezaeiy Mahmoudi M, Heidarzadeh N. Appraisal the potential of central Iran, in the context of health tourism. *Iran J Public Health.* 2013;42(3):272-279.
 42. Mahdavi Y, Mardani S, Hashemidehaghi Z, Mardani N. The factors in development of health tourism in Iran. *Int J Travel Med Glob Health.* 2013;1(2):113-118.
 43. Jabbari A, Rahimi Zarchi MK, Kavosi Z, Shafaghat T, Keshkaran A. The marketing mix and development of medical tourism in Shiraz. *Mater Sociomed.* 2013;25(1):32-36. doi:[10.5455/msm.2013.25.32-36](https://doi.org/10.5455/msm.2013.25.32-36).
 44. Tabatabaeinasab SM, Nouri A, Mohammadnabi Z, Heshmati F. Customers' typology in medical tourism. *Tourism Management Studies.* 2015;9(26):60-82. [Persian].

45. Mesbahi SA, Janghorban Laricheh M, et al. Providing a Model for Designing Logical Data Structure of Therapeutic Tourism Information System as a Tool for Medical Tourism Development. Amirkabir University of Technology; 2014.
46. Goodarzi M, Taghvaei M, Zangiabadi A. Factor analysis of effective factors on the improvement of medical tourism in shiraz megalopolis. *Environmental Management and Sustainable Development*. 2014;3(1):138-151. doi:10.5296/emsd.v3i1.4876.
47. Noori Hekmat S, Jabbari A, Dehnavieh R, Mardani R. Readiness of hospitals to infare medical tourism industry: Isfahan city. *Health Inf Manag*. 2014;11(4):506-516. [Persian].
48. Goodarzi M, Taghvaei M, Zangiabadi A. Developing of domestic medical tourism in Shiraz. *Health Inf Manag*. 2014;11(4):485-496. [Persian].
49. Goodarzi M, Taghvaei M, Zangiabadi A. Investigation and evaluation of the impacting factors on the development of medical tourism in Shiraz megalopolis. *Tourism Management Studies*. 2014;8(23):1-25. [Persian].
50. Mir M, Tajzadehnamin AA. Assessing preparation level of medical tourism in Zahedan. *Global Journal of Management and Business Research*. 2014;14(1):26-34.
51. Ayoubian A, Tourani S, Hashemidehaghi Z. Medical tourism attraction of Tehran hospitals. *Int J Travel Med Glob Health*. 2013;1(2):95-98.
52. Tajzadeh-Namin A, Bayat S. The study of the effectiveness of medical tourism websites in Iran. *Tourism Management Studies*. 2015;10(30):53-75. [Persian].
53. Safaepur M, Tavangar M. Analysis of the health tourism marketing management in Iran. *J Appl Environ Biol Sci*. 2015;5(10S):780-786.
54. Hosseini SM, Mohammadzadeh KA, Zahraei Bakhsh F, Nabian MH. Medical tourists' perception of service quality in children's medical center of Tehran, Iran. *J Orthop Spine Trauma*. 2016;2(3):e11195. doi:10.5812/jost.11195.
55. Karami F, Bayati Khatibi M, Talebzadeh Shoushtari A. Determining and prioritizing factors affecting the development of medical tourism with an emphasis on domestic tourists (case study: city of Mashhad). *Journal of Geography and Regional Development*. 2017;14(2):109-128.
56. Lajevardi M. A comprehensive perspective on medical tourism context and create a conceptual framework. *Journal of Tourism & Hospitality*. 2016;5(5):236. doi:10.4172/2167-0269.1000236.
57. Mahmoudifar Y, Tabibi SJ, Nasiripour AA, Riahi L. Factors affecting development of medical tourism industry in west Azerbaijan province of Iran. *Int J Health Stud*. 2016;2(4):25-31. doi:10.22100/ijhs.v2i4.181.
58. Bishmi B, Varmazyar A. Medical tourism capabilities in Iran and ranking the capabilities using analytical hierarchy process. *Heritage and Tourism Journal*. 2016;1(2):93-108. [Persian].
59. Nemati V, Ebrahimpour H, Babaee Y, Abbasgholizadeh N. Assessing barriers to the development of medical tourism case study: Ardabil. *Journal of Health*. 2016;7(2):118-133. [Persian].
60. Ranjnoush R, Zargham Boroujeni H, Hamidi N. Segmentation of medical tourism business in Iran: from foreign patients point of view. *Journal of Tourism Planning and Development*. 2016;5(18):54-72. [Persian].
61. Mirbolouk Z, Khodadad Hosseini SH, Hematinejad MA, Noorsalehi E. Designing the medical tourism trends model in Guilan province, Iran. *Health Inf Manag*. 2016;13(3):29-215. [Persian].
62. Samadbeik M, Asadi H, Mohseni M, Takbiri A, Moosavi A, Garavand A. Designing a medical tourism website: a qualitative study. *Iran J Public Health*. 2017;46(2):249-257.
63. Abouhashem Abadi F. The components and contents of medical tourism facilitator websites. *Tourism Management Studies*. 2016;11(33):1-18. [Persian].
64. Badei F, Ebrahimi A, Dideh Khani H. Medical tourism development in Golestan province, an assessment of identified solutions. *New Marketing Research Journal*. 2016;6(4):25-36. [Persian].
65. Hamidizadeh M, Javidi H, Mojarrad F. Iran's competitive advantage in medical tourism marketing: a case study on open heart and cataract removal surgeries. *Health Inf Manag*. 2016;13(5):373-379. [Persian].
66. Nikraftar T, Hosseini E, Moghadam A. Identify policy implications of medical tourism in Iran. *Public Policy*. 2016;2(2):141-156. [Persian].
67. Hajinejad A, Anabestani A, Safarian M. Strategic planning of medical tourism with an emphasis on religious tourism in Mashhad city. *Geographical Researches Quarterly Journal*. 2016;31(2):101-114. [Persian].
68. Mosavi-negad SM, Adeli O, Hariri T, Vali-pour N, Moshkani Z. The potential of medical tourist's attraction in hospitals (a case study of a military hospitals in Tehran). *Hospital*. 2016;15(3):63-71. [Persian].
69. Taghvaei M, Goodarzi M. Developing and prioritizing the formation of strategies in medical tourism (case study: Shiraz metropolis). *Research and Urban Planning*. 2016;7(24):1-22. [Persian].
70. Azizi F, Zahedi SH. Assessment of the barriers to the development of health tourism in Yazd province, Iran. *Health Inf Manag*. 2016;12(6):799-806. [Persian].
71. Maleki S, Tavangar M. Analyzing health tourism challenges in Mashhad from the perspective of foreign patients. *Journal of Geography and Urban Space Development*. 2016;2(2):153-165. doi:10.22067/gusd.v2i2.40771. [Persian].
72. Maboodi MT, Hakimi H. Determinant factors on medical tourism (case study: Iran). *Journal of Tourism Planning and Development*. 2016;4(15):80-106. [Persian].
73. Anabestani A, Anabestani Z. Factors affecting the choice of Mashhad as objective medical tourism. *Journal of Urban Tourism*. 2015;2(3):275-289. [Persian].
74. Mahmoudifar Y, Tabibi SJ, Nasiripour AA, Riahi L. Effective factors on the development of medical tourism industry in the west Azerbaijan province, Iran: pattern presentation. *Int J Med Res Health Sci*. 2016;5(7S):620-630.
75. Rezaee R, Mohammadzadeh M. Effective factors in expansion of medical tourism in Iran. *Med J Islam Repub Iran*. 2016;30:409.
76. Faridi Masuleh A. Rating the medical and health facilities of the country's provinces for medical tourism. *Heritage and Tourism Journal*. 2017;2(7):13-37. [Persian].
77. Jabbari A, Gholami M, Kavosi Z, Chamanpara P, Gholami M. Potential factors affecting medical tourists' viewpoint about healthcare services quality in Shiraz, Iran. *Int J Hosp Res*. 2017;6(2):85-89.
78. Abouhashem Abadi F, Ghasemian Sahebi I, Arab A, Alavi A, Karachi H. Application of best-worst method in evaluation of medical tourism development strategy. *Decis Sci Lett*. 2018;7(1):77-86. doi:10.5267/j.dsl.2017.4.002.
79. Azimi R, Mahmoudi G, Esmaeili HA. Ranking factors affecting the attraction of foreign medical tourists in hospitals affiliated to Mashhad university of medical sciences based on marketing mix model. *Iran J Public Health*. 2018;47(10):1593-1598.
80. Haji Ahmadi S, Hosseini SM, Jafari M. Factors affecting the attraction of medical tourists in Iran. *Int J Med Rev*. 2017;4(2):47-51. doi:10.29252/ijmr-040204.
81. Azimi R, Mahmoudi G, Esmaeili HA. A study of the effect of advertising on attracting medical tourism. *Int J Travel Med Glob Health*. 2017;5(3):89-93. doi:10.15171/ijtmgh.2017.19.
82. Rahimi Zarchi MK, Shafaghat T, Hatam N. Shiraz medical tourism industry: development strategies. *Management Strategies in Health System*. 2017;2(2):88-95. [Persian].
83. Naami A, Chatrooz A. Systematic review of medical tourism in Iran and case study of Tehran university of medical sciences. *Journal of Payavard Salamat*. 2018;11(5):598-609. [Persian].
84. Najafi B, Raeissi P, Gorji HA, Ahmadi A, Haghghi M. Identifying factors affecting destination choice of medical tourists: a systematic

- review of literature. *J Fundam Appl Sci.* 2017;9(2S):1309-1328. doi:[10.4314/jfas.v9i2s.846](https://doi.org/10.4314/jfas.v9i2s.846).
85. Danial Z, Abbaspour A, Rahimian H, Shaarbafchi Zadeh N, Niknami M. Training for medical tourism in Iran. *Int J Travel Med Glob Health.* 2017;5(3):77-83. doi:[10.15171/ijtmgh.2017.17](https://doi.org/10.15171/ijtmgh.2017.17).
86. Najafi Nasab M, Agheli L, Andrade MV, Sadeghi H, Faraji Dizaji S. Determinants of medical tourism expansion in Iran: structural equation modeling approach. *Iran J Econ Stud.* 2018;7(2):169-189. doi:[10.22099/ijes.2018.30739.1485](https://doi.org/10.22099/ijes.2018.30739.1485).
87. Momeni K, Janati A, Imani A, Khodayari-Zarnaq R. Barriers to the development of medical tourism in East Azerbaijan province, Iran: a qualitative study. *Tour Manag.* 2018;69:307-316. doi:[10.1016/j.tourman.2018.05.007](https://doi.org/10.1016/j.tourman.2018.05.007).
88. Sadeh E, Garkaz M. Interpretive structural modeling of quality factors in both medical and hospitality services in the medical tourism industry. *J Travel Tour Mark.* 2019;36(2):253-267. doi:[10.1080/10548408.2018.1527273](https://doi.org/10.1080/10548408.2018.1527273).
89. Asgarnezhad Nouri B, Nemati V, Abbasgholizadeh N. The effect of perceived value on the destination image, satisfaction and loyalty of medical tourists: a case study in Ardabil. *Journal of Health.* 2019;10(1):34-49. doi:[10.29252/j.health.10.1.34](https://doi.org/10.29252/j.health.10.1.34). [Persian].
90. Ebrahimi M, Tayebi-Abolhasani SA, Rostami M. Medical tourism market in selected hospitals in Tehran city, Iran: application of clustering. *Health Inf Manag.* 2018;15(3):114-119. doi:[10.22122/him.v15i3.3572](https://doi.org/10.22122/him.v15i3.3572). [Persian].
91. Hoseinpour R, Riyahi L. Relationship between medical therapy tourism and the rate of tourism attraction in Ardabil province. *Journal of Health.* 2018;9(2):159-171. doi:[10.29252/j.health.9.2.159](https://doi.org/10.29252/j.health.9.2.159). [Persian].
92. Alizadehsani M, Farahani B, Ahmadikhatir T. Wellness tourism motivational factors in hot springs of Mazandaran province: the case of Ramsar and Lavij hot springs. *Journal of Tourism Planning and Development.* 2015;3(11):33-52. [Persian].
93. Viladrich A, Baron-Faust R. Medical tourism in tango paradise: the internet branding of cosmetic surgery in Argentina. *Ann Tour Res.* 2014;45:116-131. doi:[10.1016/j.annals.2013.12.007](https://doi.org/10.1016/j.annals.2013.12.007).
94. Yang YS. Key success factors in medical tourism marketing. *Int J Acad Res Bus Soc Sci.* 2013;3(3):152-158.
95. Zuhri S, Ilyas S, Sentia PD. The Analysis of Relationships Among Variables Toward Medical Tourism to Malaysia by Employing Structural Equation Modelling. Banda Aceh, Indonesia: International Conference on Engineering and Science for Research and Development (ICESReD); 2016:167-175.