

**THE DETERMINANTS OF MEDICAL TOURISTS'
SATISFACTION IN IRAN**

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**THE DETERMINANTS OF MEDICAL TOURISTS'
SATISFACTION IN IRAN**

by

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LIST OF ABBREVIATION

MC	Medical Care
ES	Emotional Support
EC	Ethical Conduct
PS	Patient Safety
PE	Physical Environment
CO	Cost
WT	Waiting Time
MT	Medical Tourists' Satisfaction
CL	Cultural & Touristic Attractions
IPD	International Patient Department

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PENENTU KEPUASAN PELANCONG PERUBATAN DI IRAN

ABSTRAK

Industri pelancongan perubatan di Iran telah berkembang dengan pesat sejak beberapa tahun yang lalu. Kajian ini bertujuan menerokai faktor-faktor penting yang menjadikan Iran destinasi pelancongan perubatan pilihan melalui kepuasan pelancong perubatan. Persepsi positif mereka dapat menyumbang kepada pertambahan bilangan pelancong perubatan, kedudukan global yang baik dan seterusnya perkembangan lanjut industri ini. Oleh yang demikian, kajian ini menggunakan dua pemboleh ubah tak bersandar iaitu faktor manusia (penjagaan perubatan, sokongan emosi dan interaksi manusia, tingkah laku beretika, keselamatan pesakit) dan faktor bukan manusia (persekitaran fizikal, kos, masa menunggu) serta peranan tarikan budaya dan pelancongan sebagai penyederhana untuk menilai kepuasan para pelancong perubatan. Kaedah pengumpulan data keratan lintang telah digunakan dan data telah diperoleh daripada pelancong perubatan dari Timur Tengah. Teknik pensampelan mudah telah diguna pakai dan jumlah akhir borang soal selidik boleh guna yang diperoleh adalah 212. Data yang dikumpul dianalisis melalui ujian kenormalan dan ujian unsur luaran. Penilaian model ukuran dan model struktur pula dilakukan menggunakan SmartPLS 3.2.6. Dapatan kajian membuktikan bahawa faktor manusia iaitu penjagaan perubatan, sokongan emosi serta interaksi manusia; dan juga faktor bukan manusia iaitu persekitaran fizikal dan kos amat mempengaruhi kepuasan pelancong perubatan. Selain itu, peranan tarikan budaya dan pelancongan sebagai penyederhana telah ditentukan melalui hubungan antara persekitaran fizikal serta masa menunggu dengan kepuasan para pelancong perubatan.

THE DETERMINANTS OF MEDICAL TOURISTS' SATISFACTION IN IRAN

ABSTRACT

Medical tourism industry has considerably progressed in Iran over the past few years. The present study has aimed to investigate Iran's significant factors through medical tourists' satisfaction. Since medical tourists' positive perception will lead to a greater number of health tourists, superior global ranking and eventually more development of this industry. Thus, the current study has taken two independent variables of human factors (medical care, emotional support, ethical conduct, patient safety) and non-human factors (physical environment, cost, waiting time) and the moderating role of cultural and touristic attractions to evaluate medical tourists' satisfaction accordingly. The cross-sectional data collection method was used, and data was collected from the middle eastern medical tourists. To do so, convenience sampling technique was applied and a total of 212 were final useable questionnaires. Collected data was examined with normality and outliers test. SmartPLS 3.2.6 was used to assess measurement model and structural model. The findings of the study demonstrate that medical care and emotional support in human factors while physical environment and cost in non-human factors significantly affect medical tourists' satisfaction. Moreover, the moderating role of cultural and touristic attractions has been confirmed on the relationships between physical environment and medical tourists' satisfaction as well as waiting time and medical tourists' satisfaction.

CHAPTER 1

INTRODUCTION

1.1 Research Background

1.1.1 Global Medical Tourism

Over the past few decades, tourism has become one of the most significant industries in terms of helping to promote the overall income of countries. Therefore, countries all over the world could gain a higher revenue as well as more employment opportunities by improving the efficiency of this industry in their country. Consequently, attracting this financial source from beyond the country borders could have a crucial effect on developing the destination country. Hence, countries which are in possession of the necessary potential and resources for development, can tremendously benefit from this industry. Medical tourism is known as one of the most significant ways of attracting tourists to the destination country (Saadatnia & Mehregan, 2014).

World Tourism Organization (1995) defines tourism as “the activities of person’s travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes”. In accordance with this definition, tourism activities do not merely contain recreational and leisure purposes but also include business, medical and other possible purposes as well. Healthcare-oriented travels may be curative to receive the required treatment or preventive/wellness-related (Aydin & Karamehmet, 2017).

On the other hand, the definition of health is denoted by The World Health Organization (1946) as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”. Hence, health treatment would encompass

all services which improve one's level of physical, mental and social well-being as well as preventing possible relevant problems (Aydin & Karamahmet, 2017).

As stated by Lajevardi (2016) "medical tourism as a niche has emerged from the rapid growth of what has become an industry, where people travel often long distances to overseas countries to obtain medical, dental and surgical care while simultaneously being holidaymakers, in a more conventional sense". Since health is indubitably the most important possession of human being, travelling beyond country's borders to seek various treatments to improve one's health has become significantly common among population (Yang et al., 2015). As mentioned by Cohen (2012), poor level of health would significantly affect the quality of life and is a matter of concern for all people.

Based on the aforesaid, medical tourism could be defined as going from the residence to another place to receive health-related services. Moreover, medical tourists may take this opportunity to enjoy the touristic and recreational attractions as well which is known as the secondary concern since the primary concern would be receiving health-related services (Bookman & Bookman, 2007; Genç, 2012). This newly innovated industry could have a tremendous influence on country's economic and social life that specially developing countries cannot disregard (Hunter, 2007; Heung et al., 2010).

It is suggested by estimations that 750,000 citizens of USA took journeys abroad to receive health-related services in 2007 (Zamani-Farahani & Henderson, 2010). As stated by Patients Beyond Border (PB, 2018), approximately 11 million people travel abroad by health-related purposes annually and in 2017, 1.4 million of this population were Americans who travelled beyond US borders to receive treatment.

Medical tourism website has published a report (2020) in which the global destinations of medical tourism have been ranked in terms of factors such as cost, environment and overall (MedicalTourism, 2020). This report has applied MTI – Medical Tourism Index – to rank the intended destinations. It has been stated that: “The development of the MTI was a multi-year, multi-step, multi stakeholder approach. We followed a rigorous 8-step, methodological, statistical and index construction procedure to develop this psychometric sound measurement. The MTI measures the attractiveness of a destination as a medical tourism destination in terms of overall destination image and environment; healthcare and tourism attractiveness and infrastructure; and availability and quality of medical facilities and services. The MTI considers push and pull factors. Pull Factors: They focus on the offer of medical tourism services. They can be grouped into three groups. The first relates to overall destination environment; the second includes factors related to the medical tourism industry; and the third includes factors related to the quality and availability of the medical facilities and services. Push Factors: These are factors related to the demand for medical tourism. They are mainly related to consumers and includes factors such as socio-demographical (e.g., age, gender, education, marital status, ethnicity, geographical location) or health related factors (e.g., insurance status, health status) driving the demand for medical tourism. These variables are used as control variables allowing sorting and exploring the MTI values in the ‘members only section’. For example, you will be able to explore and discover and assess how gender, age, or geographical location matters for the medical tourism perception.” (MedicalTourism, 2020). This report tends to demonstrate the 2020-2021 MTI Overview.

Based on the published report, the top 10 of global destinations that have been ranked by MTI overall are: Canada, Singapore, Japan, Spain, United Kingdom, Dubai, Costa Rica, Abu Dhabi, India, France whereas their relevant MTIs are displayed as: 76.47, 76.43, 74.23, 72.93, 71.92, 71.85, 71.73, 70.26, 69.8, 69.61 respectively.

High cost medical treatments in Europe and USA, have driven plenty of patients to other countries to seek health services and medical treatments (Hosseini, Maher, Safarian, Ayoubian, Sheibani-Tehrani, Amini-Anabad, & Hashemidehaghi, 2015). Medical tourists may save 40% to 90% of the cost when they travel beyond borders to receive healthcare services compared to receiving such services at their home countries (Bookman & Bookman, 2007; Merrell, Boucher, Carabello, Herrick, Lazzaro, Ludwick, & Doarn, 2008). Accordingly, cost can be one of the motivations that is driving patients to seek treatments beyond their countries' borders.

Even though people from developed and wealthy countries tend to go to developing countries to seek healthcare services because of the less medical expense, they do not overlook the quality-related concerns (Sarwar, Manaf, & Omar, 2012; Jabbari, Ferdosi, Keyvanara, & Agharahimi, 2013). Therefore, it is needless to mention that all industries including medical tourism, are required to improve quality in their services in order to survive.

Furthermore, many people in developed countries do not receive the healthcare services they demand whether due to the limited insurance coverage or lack of suitable or sufficient supply of the relevant services (Aydin & Karamehmet, 2017). This causes the problem of accessibility and availability which results in a conflict with the quality of life (Aydin & Karamehmet, 2017). Hence, westerners who are not covered by a suitable

insurance coverage or are not willing to wait to receive these services may prefer an international destination which will provide them with their desired treatments and services in a timely procedure (Cohen, 2012).

The development of medical tourism is effected by multiple factors such as high expense of medical operations and surgeries in developed countries, the growth of international travel options which are reasonably priced, quality enhancement of standards in developing countries, increasing the desire for dental and cosmetic operation, maturity increment in medical tourism operations, the support of the government and increasing the communication technologies and information (Cohen, 2012; Connell, 2006; Deloitte, 2009; Eisslera & Casken, 2013; Laing & Weiler, 2008; Lunt, Smith, Exworthy, Green, Horsfall, & Mannion, 2011; Pafford, 2009).

1.1.2 Medical Tourism in Iran

As reported by Bahrami Shabestari (2012) – Chief of Tourism and Services Commission of Commerce, Industries, Mines and Agriculture Chamber - the medical tourism by the current pattern came to the attention of Ministry of Health in Iran at 2003 and then at 2004 after establishment of Iranian Cultural Heritage, Handicrafts and Tourism Organization, it was noted more independently and some plans were considered to develop it.

Furthermore, she adds that Iran is in possession of significant advantages in the region in health tourism field due to its special geographical location in the region, being safer compared to some other countries in the region, diverse climate, different hot waters in various parts of the country, having expert doctors as well as proficient hospital staff.

In the same report she indicates that according to the announced statistics by the tourism deputy of Cultural Heritage, Handicrafts and Tourism Organization in 2012, more than 200,000 tourists had travelled to Iran by the purpose of health tourism. Based on the announcement of health ministry, each tourist who travels to Iran by the purpose of health tourism, spends more than \$5,000. Therefore, it can be concluded that health tourism brought more than \$1 billion. to Iran's economy cycle. Nevertheless, experts believe that the number of medical tourists to Iran is more than this number (Bahrami Shabestari, 2012). She added, medical tourists mostly travel to Iran to seek treatment for below matters: Sterility, Dentistry, Plastic Surgery, Heart Surgery, Illnesses which are related to cancer, Ocular Surgery, Tourism in healing waters (Mud Therapy, Plant Therapy). Health tourists who choose Iran as their destination country mostly come from Iraq, Azerbaijan, Afghanistan, Turkmenistan, Syria, Kuwait, Bahrain, Lebanon, Turkey and Saudi Arabia and it is noteworthy to mention that Iran has 20% to 25% of improvement in health tourism over the past decade. Moreover, most of medical tourists who come to Iran are received by the provinces of Tehran, Gilan, Fars, Eastern Azerbaijan, Khorasan Razavi and Ardebil (Bahrami Shabestari, 2012). The number of medical tourists in Iran has increased due to:

- Low cost of treatment compared to other countries of the region
- Establishment of Visa type (T) which facilitates the procedure of obtaining the visa for patients and people who accompany them
- Fluctuation of foreign exchange rate
- Presenting exported rewards
- Proficient hospitals which encompass expert doctors and hospital staff

(Bahrami Shabestari 2012).

It can also be concluded that the mentioned factors have positively affected medical tourists' satisfaction which have efficiently led to a higher number of medical tourists' visit in Iran. In accordance with the concluded statistics of 2019, most of the patients come from Iraq, Afghanistan, Pakistan, Azerbaijan, Bahrain, Oman, Kuwait, Turkmenistan, Qatar and India to limited surgery centres and hospitals. In the meanwhile, their motivation would respectively be described as: gynaecological, orthopaedical surgeries, heart diseases, urology, ocular surgeries, infective diseases, general surgeries, orthopaedical, rhinoplasty and non-surgical diseases (medical treatment). In addition, the most referred cities by patients in Iran are Tehran, Qom, Mashhad, Ahwaz, Shiraz, Tabriz, Semnan, Urmia and Lar respectively (Hamshahri, 2019).

According to the International Healthcare Association of Iran, Iran has the potentiality to become the hub and the most competitive destination to regional and Islamic countries in health tourism. Iran has significant advantages in health tourism comparatively and competitively due to its possession of hospitals, expert doctors, medical infrastructure, medical care, suitable standards and so on. Iran's International Health Services Association also describes Iran's high level of potentiality in health tourism based on:

- Cultural and religious similarities as well as proximity to Islamic countries of the region in addition to strategic geographic location in the region
- Positive international image due to touristic and cultural attractions as well as pleasant climate
- Expert and proficient doctors and medical team
- Being one of the top five countries in the world in the field of biotech molecules

- Having approximately 300 mineral springs with therapeutic properties, capability of investment and developing in most parts of the country
- Being pioneer in the field of health and scientific development in the region
- Iran has a great capability in the fields of fertility treatment, stem cells treatment, dialysis, heart surgery, ocular surgeries as well as ophthalmology.
- The costs of surgical and medical treatments in Iran are equal to 20% to 25% of the same ones in United Kingdom and United States of America.

The aforesaid factors have proven to be Iran's advantages in medical tourism industry and hence can directly affect the medical tourists' satisfaction in the process of their treatment and receiving the healthcare services.

Hereby, Table 1.1 and Figure 1.1 demonstrate the approximate numbers of health tourists' arrival and its progress in Iran over the past few years respectively. It is noteworthy to consider that the given statistics are based on the Iranian calendar. Accordingly, the Iranian calendar year is justified as follows: 1395 (Starting from 20.Mar.2016), 1396 (Starting from 21.Mar.2017), 1397 (Starting from 21.Mar.2018), 1398 (Starting from 21. Mar.2019).

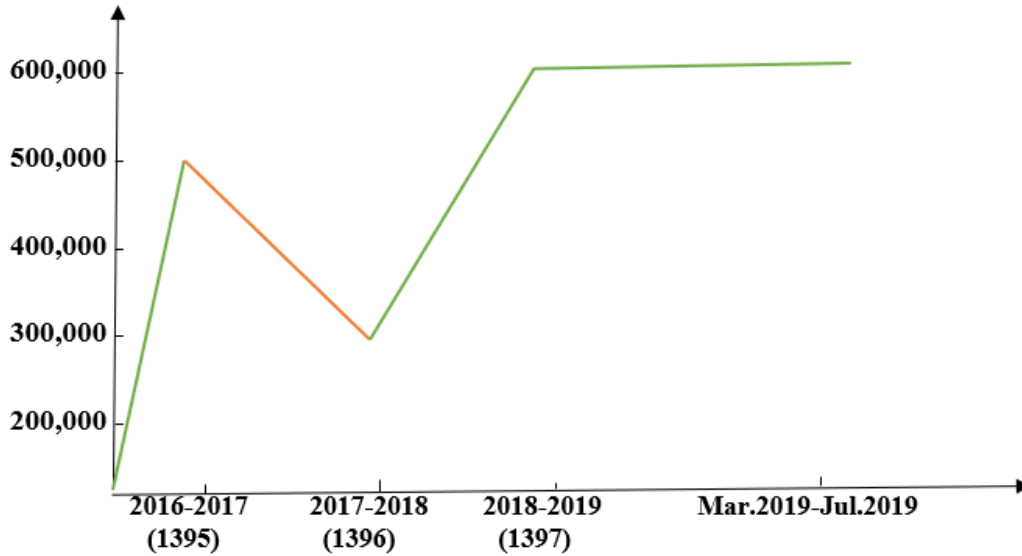


Figure 1.1: The progression trend of Iran's medical tourists over recent years

Source: Tehran Times – Iran's Leading International Daily (2017); IRIB News Agency (2017); IMTJ-International Medical Travel Journal (2019); Tehran Times – Iran's Leading International Daily (2019)

Table 1.1: The statistics of Iran's medical tourists over the recent years

Year	Number of Health Tourists	Reference
Mar.2016-Mar.2017 (1395)	500,000	Tehran Times – Iran's Leading International Daily, 2017
Mar.2017-Mar.2018 (1396)	300,000	IRIB News Agency, 2017
Mar.2018-Mar.2019 (1397)	600,000	IMTJ-International Medical Travel Journal, 2019; Tehran Times – Iran's Leading International Daily, 2019

Source: TehranTimes (2017); IRIB (2017); IMTJ (2019); Tehran Times (2019)

With reference to IRIB News Agency (2017), Dr. Jahangiri - President of the Health Tourism Association of Iran – stated that the population of arrived medical tourists in Iran increased by 20% annually from 1392 to 1395 (i.e. 2013 to 2016) (IRIB News Agency, 2017; Tehran Times, 2017).

However, as per demonstrated in Table 1.1 as well as Figure 1.1, the number of this population dropped down in 1396 to nearly 300,000 health tourists. Consequently, Dr. Jahangiri referred to brokers for health service providers and patients as the ones to blame. He also noted that their first priority in medical tourism sector is to deal with brokers (Tehran Times, 2017).

In the following, as announced by IRINN (2019), Dr. Hashemzadeh - the chief of health tourism department of Iran's ministry of Health and Medical Education - stated that approximately 300,000 medical tourists have been attracted to Iran to receive treatment on 1396 (i.e. Mar.2017 to Mar.2018). However, based on statistics, this number has increased 1.5 to 2 times as much on 1397 (i.e. Mar. 2018 to Mar. 2019) which reflects the suitable medical condition of Iran, he added.

It is noteworthy to consider that Iran has witnessed this incremental progress in health tourists' population, not only on the year 1397, but the medical tourists that Iran has received in the first four months of 1398 (Mar.2019 to Jul.2019) is also equal to the total number of its previous year. Hence, in the first four months of current Iranian year, Iran received nearly 600,000 medical tourists which is almost the same as the last year, based on an Iranian association for the health tourism promotion (Tehran Times, 2019; IMTJ, 2019; Tejarat News, 2019).

Mohammad Panahi – deputy of the head of Health Tourism Promotion Association of Iran - believes that the main reason for this increase is that the cost of travelling to Iran has extremely decreased due to the devaluation of Iranian rial versus foreign currencies (IMTJ, 2019; IFP, 2019). He added that this fact alongside the significantly skilled and expert Iranian doctors has resulted in Iran’s healthcare service market being greatly attractive to foreigners (IFP, 2019). Further, from the medical tourist perspective, tourists showed their intention to travel toIran for medical purposes.

For instance, the rhinoplasty surgery which is one of the most popular type of cosmetic surgeries around the world, costs \$800-\$2500 approximately in Iran which is by far cheaper than India and Turkey whilst providing the same quality as developed countries such as UK and USA (Iranian Surgery, 2019). Accordingly, Figure 1.2, 1.3 and 1.4 demonstrate the price comparison of some surgeries between Iran and other countries.

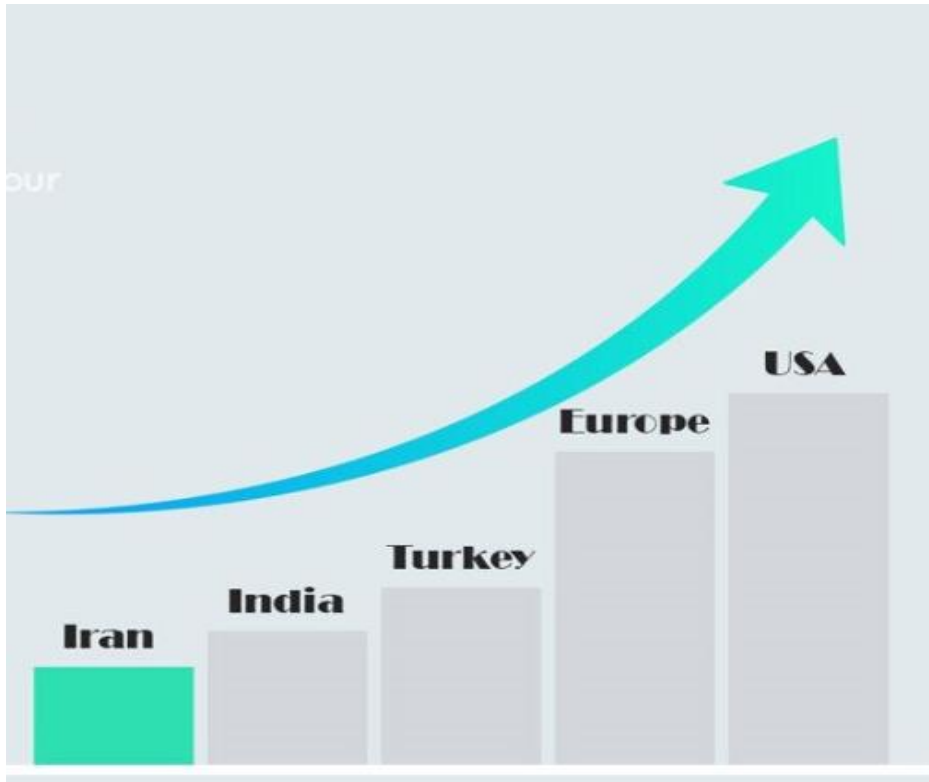


Figure 1.2: Comparison of plastic surgeries costs in various countries

Source: IMTA (International Medical Tourism Association) (2019)

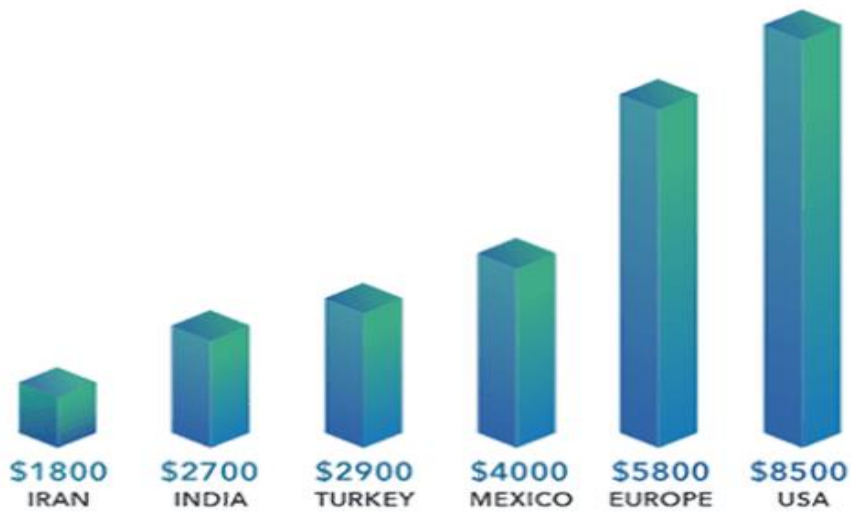


Figure 1.3: Average Price of Rhinoplasty in Different Countries

Source: Aria Med Tour (2019)

In their study in Yazd-Iran, Mirfakhradini, Mirfakhradini, and Sadr Bafghi (2012) identified sufficient health equipment along with the quality of healthcare services as two basic poles in the industry of medical tourism. Rokni et al., (2013) appraised the medical tourism potentiality in Shiraz-Iran through the perspective of aimed hospitals' top managers and concluded that the existed similarities in religion and culture are the most important factor that attract regional medical tourists to Iran.

Izadi et al., (2012) concluded in their study that various reasons have resulted in health tourism development. Accordingly, desirable exchange rate of currency in the worldwide economy, high quality of medical services and treatments which are affordable by reasonable costs, touristic attractions along with the affordability and easiness of the international travel to the destination countries were stated as the most significant factors.

Considering the level of resemblance between the citizens of Persian Gulf countries both culturally and religiously, these countries encompass the greatest potential in the market of medical tourism for Iran (Rokni, Pourahmad, Moteiey Langroudi, Rezaeiy Mahmoudi, & Heidarzadeh, 2013). The Persian Gulf countries mainly include Iran, Oman, United Arab Emirates, Saudi Arabia, Qatar, Bahrain, Kuwait, and Iraq.

One of the most important factors in medical tourism industry are cost-related concerns and luckily, healthcare services in Iran costs lower than other countries around who are active in this industry such as India, Turkey, etc. (Hajinejad & Eslamfard, 2013).

Not only, such costs in Iran are estimated to be lower than other neighbours, but also it is noteworthy to mention that Iran's currency has been considerably devalued due

to the recent sanctions which makes these services even cheaper and easier to afford for foreign patients and medical tourists, compared to its competitors among Persian Gulf countries.

Hosseini et al. (2015) stated in their study that as to Iran's potentiality in medical tourism, the strongest point of Iran in health tourism industry is the cheap expenses of the relevant services in Iran such as the costs of hospitalization, healthcare treatments and so on.

Iran can be a capital of this field in Asia by formulating a rational exploitation of possible and comprehended capacities in the fields of medicine, health and tourism (Hosseini et al., 2015). In addition, execution of an efficient management and improving in medical tourism industry requires infrastructural activities. Same experiences of other countries demonstrate that in tourism, the plans which will result in market expansion and benefits without dealing with drastic problems, are the long-term ones (Hosseini et al., 2015). Even though there are significant challenges on the way, Iran has a plan to use its opportunities considering its strength in medical tourism like medical services with high quality as well as low expenses of these services in Iran (Hosseini et al., 2015).

Hosseini et al. (2015) conducted a study in Iran-Tehran, the results of which identifies both strength and weakness points in medical tourism industry of Iran at the time of doing the study. Moreover, low expenses of medical services, Iranian physicians who have achieved international reputations and access to the latest health and medical facilities and equipment were recognized as the most decisive strength points amongst internal factors.

According to Panahi, these health tourists were mostly from Iraq, Azerbaijan, Syria, Lebanon and littoral states of Persian Gulf, in addition to Iranian expatriates who are domiciled in Germany and Canada, who came to Iran seeking diverse healthcare services like open heart surgery, plastic surgery, fertility treatments and orthopaedic surgery (IFP, 2019; Tehran Times, 2019; IMTJ, 2019). He also states that medical tourism of Iran has gained \$1.2 billion in revenue for this country in the last Iranian year and the figure has raised to 20-30% only in the first four month of the current year (IFP, 2019; Tehran Times, 2019).

Even though, Iran's medical tourism has gained a great revenue so far and the progress is increasingly moving forward, it is yet believed that Iran is capable of more development, considering its potentials and capabilities. As reported by Salamat News-IRNA (2019), Dr. Hashemzadeh called Iran's current share of global health tourism industry as insignificant and he stated that according to the last year's statistics, the total global income of this industry was announced to be equal to \$400 billion while Iran's share of this revenue was \$1.2 billion (SalamatNews, 2019). The Islamic Republic of Iran is planning to exceed its annual medical tourists to near 2 million in the year 1404 (i.e. Mar.2025-Mar.2016) (Tehran Times, 2019).

1.2 Problem Statement

Medical tourism can provide the developing countries with opportunities to make a significant development in them. Moreover, host countries of this industry can benefit from the economic advantages of medical tourism as well (Waikar, Cappel, & Tate, 2011). Considering the recent international policies and challenges which developing countries

may face, raising their revenue through foreign exchange currency is a significant opportunity that they cannot disregard. Hence, it is crucial for developing countries by enough potential, to assign their attention to the improvement of this billion-dollar industry and make a remarkable contribution to their economy cycle.

With reference to the background of the study, Iran can be named as one of the countries with a great potential in medical tourism field. On the other hand, it shall be noted that exporting the crude oil is one of the main ways of inflowing foreign exchange currency in Iran. However, considering the relevant problems and challenges, it is essential to assign funds in different services and products that will result in the inflow of foreign exchange currency to Iran (Hosseini et al., 2015).

Medical tourism industry has shaped a well-established market in the destination countries due to patients travelling to receive medical treatments and services. This phenomenon has a long history and it is important to be used as a precious service industry in the industrial world of today (Najafi Nasab, Agheli, Andrade, Sadeghi, & Faraji Dizaji, 2018).

Medical Tourism official website has ranked top 10 global destinations of medical tourism through MTI to be: Canada, Singapore, Japan, Spain, United Kingdom, Dubai, Costa Rica, Abu Dhabi, India, France, Germany (MedicalTourism, 2020). Hence, Iran has yet not become one of the top medical tourism destinations and this could be mainly due to the novelty of this industry in this country. Accordingly, future steps which are being planned at this period of time could play a crucial role in further development of medical tourism in Iran. Therefore, that explains the importance of current relevant studies and the

significance of evaluating different perspectives of medical tourism to achieve a holistic outlook on the effective elements in this field.

Considering Iran capabilities in health tourism such as high service quality by low cost, professional doctors, expert medical team, it could be said that this country has the required elements and capabilities to emerge as one of the main global poles of medical tourism industry.

In addition, Iran's high potentiality in this industry as well as its recent improvement (as per described in Figure 1.1 and Table 1.1) imply that this country has the ability to grow and emerge as one of the top global destinations in this industry. Therefore, in order for Iran to grow higher among the competitors in this field, emerge as one the top destinations and gain a greater revenue, further steps need to be taken accordingly.

On the other hand, Health tourists as the main players of this field, play the most essential role in medical tourism industry. Therefore, in order for countries to grow and develop in this industry, they need to be thoroughly aware of health tourists' perspective and how to keep them satisfied. It is needless to mention that satisfied patients will bring accredited reputation for the hospitals and the destination and eventually lead the country to be a stronger pole in this industry.

Mohammad Varzi et al. (2016), resulted in their study that in spite of the observed deficiencies in any of the area, we shall pay attention to patients' preferences and needs as well as patient-centered issues to increase and strengthen the level of health care quality. Considering patients' preferences, will result in care provision improvement and gaining a stable care practice, not to mention it is morally appreciated. Therefore, it is required to

guide the management organization toward managing the customers' preferences since this type of management considers the customers as a basic factor and providing their requirements will be of great importance.

As concluded by Mohammad Varzi et al. (2016), evaluating patients' satisfaction can be considered as one of the essential indicators in the measurement of health system quality. Therefore, evaluating patients' satisfaction could be significantly valuable to health system quality. Hence, this measurement shall be updated quite often so that the further steps would be planned accordingly to eliminate the identified deficiencies.

Furthermore, with respect to the aforesaid on Iran's potential and abilities in this industry as well as its motivation to inflow foreign exchange currency to the country, it can be concluded that Iran has both the motivation and the ability to become one of the top global destinations in medical tourism. However, despite of its significant progress over the past few years, Iran has yet not emerged as one of the top global destinations. Nevertheless, it shall be noted that Iran has a shorter history in medical tourism compared to the current leading countries of this industry and the reason of it not being among top destinations yet could be due the novelty of this industry in this country. Thus, in order to plan accurate steps for the future, current studies shall evaluate various dimensions and elements of this industry in Iran to highlight the strength and remove the deficiencies.

So far, patients' satisfaction has confirmed to have an undeniable influence on healthcare quality and medical tourism development in the destination country. Moreover, considering that, previous studies mostly focused on the attractive factors in medical tourism and its development in Iran, this study is aiming to evaluate medical tourists' satisfaction in Iran. It is significant to note that, in order to plan accurate steps for further

development of this industry, a holistic outlook is certainly required. Therefore, various dimensions and perceptions shall be evaluated to achieve a thorough perspective. In this regard, this study has determined to study medical tourists' satisfaction as one of the most important dimensions in this industry since this element has not been evaluated as much as the other dimensions in the previous studies. Furthermore, being aware of medical tourists' perception and the factors which they value more, will lead to a better understanding of their expectations and eventually development of this field in the destination country.

The rate of medical tourists' satisfaction has been reviewed by Mirfakhradini et al. (2012) in their study in Yazd province of Iran. Through evaluating health tourists' satisfaction, they have concluded that the suitable facilities and health service quality had considerable effects on medical tourists' attraction.

Thus, the higher level of medical tourists' satisfaction is related to attracting more medical travelers in the country. Accordingly, to attract more health tourists to the destination, evaluating their satisfaction level and the elements with which it is related, could be significantly useful and effective.

In another study conducted in Tehran province of Iran by Shabaninejad, Abolghasem Gorgi, and Ziaee niri (2016), it has been concluded that attending the patient-centered matters – which took the second rank of the most important factors in attracting health tourists - is relevant to the delivered services' quality.

As proven by previous studies such as Shabaninejad et al. (2016) and Mohammad Varzi et al. (2016), attending patient-centred matters and their satisfaction is of great importance and it can directly affect the level of healthcare quality in a country.

Considering patient's preferences and satisfaction means evaluating the factors through their perspective and opinion. Therefore, it is safe to say that identifying the factors which affect medical tourists' satisfaction will enhance the healthcare quality even better than it currently is and this will lead to development of medical tourism industry in the country. Hence, following the development of this industry in Iran, this country can emerge as one of the top global destinations in health tourism.

On the other hand, recognizing the factors which affect health tourists' satisfaction will enable the management of the relevant organizations to design their plans in accordance with these criteria leading them to enhance the level of health tourists' satisfaction and eventually developing the health tourist industry in Iran.

Accordingly, to facilitate planning the further steps to achieve a higher level of medical tourists' satisfaction, this study has categorized the factors into two groups of human and non-human factors. The result of this division will aid to identify that which category is more effective on medical tourists' satisfaction and meet their preferences through their own perspective.

Hence, due to this division, it will be known which group needs more concentration and improvement. Therefore, improving human factors requires informing and training the staff and its main concern is manpower. Whereas enhancing non-human factors often focuses on planning, well-scheduling as well as improving the equipment and facilities.

Based on the aforesaid, this classification will help the relevant management organizations, hospitals and medical tourism agencies to be informed of which departments they need to assign more resources to. To enhance the elements of human

factors, the management needs to assign the required resources to Human Resources Department through training and informing the staff. Whereas, to increase the non-human factors' level, the financial resources need to be assigned to improving facilities, equipment and planning. Therefore, this classification will provide them with a better perspective of how to plan their further steps to gain a higher level of medical tourists' satisfaction.

On the other hand, touristic attraction plays an important role as one of the main elements in health tourists' destination choice (Fetscherin & Stephano, 2016). In addition to Iran's healthcare and medical advantages, Iran proposes a wide variety of touristic and cultural attractions which have driven tourists to visit this country for a long time. The findings of the study of the effective factors for attracting medical tourism in Iran, identify geography as one of the factors affecting medical tourists' destination choice (Kazemi, 2007). In this context, geography could be defined as a particular location having its own popularity with its exquisite weather and innate beauty.

Furthermore, it has been concluded in the study conducted in Tehran city of Iran, that Iran's natural historical and attractions is one of the most important strength factors of medical tourism in this country (Tajzadeh Namin, & Malekzadeh, 2017).

Respectively, the current study has aimed to study the moderating role of cultural and touristic attraction on the relationship between human factors and medical tourists' satisfaction as well as the relation between non-human factors and medical tourists' satisfaction in Iran. This factor has been studied as the moderator of the current study's framework since the main travel purpose of all medical tourists is to receive the intended healthcare services. Hence, the natural attraction of the destination is not considered as a

decisive factor forming their decision and satisfaction. However, this factor could positively be effective on the relationship between the main elements (Human factors and Non-human factors) and medical tourists' satisfaction since it could be considered as the positive side effect of medical tourists' trip and will provide them with the opportunity to enjoy their stay more.

1.3 Research Objectives

This study intends to evaluate the relevance between human factors, non-human factors and medical tourists' satisfaction. Hence, the following objects are intended to be met through current study according to the problem statement and background of the study:

- To determine which elements of human factors (medical care, emotional support, ethical conduct, patient safety) significantly affect medical tourists' satisfaction in Iran.
- To understand the relationship between non-human factors (physical environment, cost, waiting time) and the level of medical tourists' satisfaction in Iran.
- To explain the moderating role of cultural and touristic attractions between human factors, non-human factors and medical tourists' satisfaction in Iran.

1.4 Research Questions

As per stated in the research background, previous relevant research on Iran tended to mostly study the factors of medical tourism attraction. On the other hand, medical tourists as the main base of health tourism industry play an essential role in the development and improvement of this industry. Therefore, in order to develop this field

in the country, it is crucial to increase the level of their satisfaction which will lead to a better reputation for hospitals and hence the destination country.

Accordingly, the current study aims to evaluate level of patients' satisfaction, through human and non-human factors. Following to the stated background of the research, problem statement as well as research objectives, the current study presents three questions:

- Do elements of human factors affect the level of medical tourists' satisfaction in Iran significantly?
- Do aspects of non-human factors have a significant influence on medical tourists' satisfaction in Iran?
- Do cultural and touristic attractions moderate the relation between human factors, non-human factors and medical tourists' satisfaction in Iran?

1.5 The Scope of the Present Study

The present research, as an empirical study has concentrated on the Middle Eastern medical tourists who have visited Tehran's hospitals which are equipped with IPD – International Patient Department. This study aims to evaluate the relation among human factors, non-human factors and medical tourists' satisfaction. The moderating role of the cultural and touristic attraction has also been examined between human factors, non-human factors and medical tourists' satisfaction. Hence, the present research is determined to reply to questions like: Does increasing the quality level of human and non-human factors enhance the level of medical tourists' satisfaction?

The relevant data has been gathered through sets of survey questionnaire addressing the Middle Eastern who have come to Tehran's hospital equipped with IPD, seeking

healthcare services. The questions were replied by the medical tourists' companions who have met the mentioned criteria, as the medical tourists' proxy. Considering the statistics that have already been discussed in the background of the study, the majority of medical tourists in Iran come from Middle East countries and therefore, this population has been chosen as the target respondents of this study.

1.6 Significance of the Study

1.6.1 Theoretical Significances

This study plans to reflect multiple theoretic significances. Primarily, the current research intents to contribute to the literature of health tourism by choosing some of the most important factors in this industry as its independent variables and studying their influence on medical tourists' satisfaction. Although these factors had already been evaluated in multiple studies separately, this study has brought these factors together in the same framework and in the same study.

On the other hand, the aforesaid factors have been categorized into the groups of human factors and non-human factors which could be considered as a new type of classification in the area of medical tourism field.

Furthermore, this study will also contribute to the existing body of knowledge on the satisfaction level of medical tourists and their behavior by developing a theoretical model based on the theory of the planned behavior (TPB). Theory of Planned Behavior comprehensively predict the behavior of international travelers according to their perceived behavior control, attitude and beliefs (Sparks & Pan, 2009). The model of the study presumes that attitude (physical environment, cost, waiting time), perceived