

Strategic Planning for Supply Chain of Health Tourism in Iran: Razavi Hospital

Zahra Mojaradi^{1*}, Ali Bozorgi-Amiri², Saeed Hashemzadeh³

¹ Department of Industrial Engineering, Islamic Azad University, Electronic Branch, Tehran, Iran

² Assistant Professor, School of Industrial Engineering, College of Engineering, University of Tehran

³ PHD in Business Management, Head of Health Tourism Office

* *Corresponding authors:* Zahra Mojaradi, Department of Quality improvement, Razavi Hospital, Mashhad, IR Iran. Tel: +98-5116668888, Fax: +98-5116668887, E-mail: z.mojaradi@gmail.com

Received 2020 December 18; Accepted 2021 April 09.

Abstract

Health tourism is of significant importance in Iran; however, a body of problems surrounds the implementation of health tourism along with the challenges of attracting tourism in this country. After an analysis of the external (using the PESTEL and PORTER methods) and internal environment (using performance indicators and EFQM method), along with an analysis of high-level documents and stakeholders, a strategy was formulated for the health tourism supply chain in Razavi Hospital, Mashhad, Iran, through an experimental study. Furthermore, strategies were developed using the Strengths, Weakness, Opportunities, and Threats matrix based on the comments and views of health tourism experts. They were then prioritized using the Quantitative Strategic Planning Matrix. Following that, the implementation of strategies, strategic objectives, and indicators was determined as a balanced scorecard. The results suggest that the use of the above techniques can contribute to the health tourism industry.

Keywords: BSC SWOT, EFQM, Health tourism supply chain, Health tourism, KAPLAN, NORTON, PESTEL, PORTER, QSPM, Strategy, Strategic objectives

1. Introduction

Health Tourism, which is a blend of medical and wellness tourism, has now become the fastest-growing sector in the country. Medical tourism refers to the people traveling across the nation other than their own country for medical treatment, whereas wellness tourism is a form of travel to promote health and well-being through physical, psychological, or spiritual activities (i.e., rejuvenation). However, health tourism is a broader concept, and all these terms can be used interchangeably since they all are dependent on each other (Beny Paul, 2019).

Health tourism is a form of travel to obtain health and medical care in addition to entertainment, leisure, and comfort. Medical developments and availability of state-of-the-art medical equipment in Iran have created new opportunities for the tourism industry, especially health tourism. Mashhad, as the capital of the province and the main hub offering a variety of premium services, particularly in healthcare in the field of dialysis, dentistry, cardiac surgery, plastic surgery, and eye surgery. Moreover, it is of a special position not only throughout Khorasan Razavi province but also at the national and international levels. These conditions along with the well-founded mode of transportation (roads, railway, and international

airport), residences, entertainment, and tourism centers, especially religious tourism, have provided an appropriate situation to attract medical and health tourists. Therefore, it is necessary to recognize the requirements and problems of clients in health tourism and consider them in planning and management (Tavangar, 2016)

The economic growth of nations coupled with increasing life expectancy has contributed to the rising demand for health care services. Health tourism is one of the industries that has become more significant for various countries. Although leisure is still at the forefront, health tours during holidays are becoming a permanent part of tourism operations. This change is also observed in the rising number of academic literature relating to health tourism. In the literature, these studies generally can be divided into three categories of region analysis, theoretical approach, and case studies with a specific focus. As can be observed in the literature, studies on health tourism and regional analysis are among the most studied subjects (Büyükozkan et al, 2020). Sayili et al. described Kangal Fish Spring as the destination of health tourism and explored the socio-economic characteristics of people visiting this area. Moreover, Gustavo presented medical tourism, while Lee analyzed the role of the health

care sector in Singapore. In the same line, Altm et al. investigated the development of essential medical tourism in Turkey for both the public and private sectors. Yu and Ko presented the health tourism perceptions and participation of Chinese, Japanese, and Korean visitors in Jeju Island, Korea. Similarly, in a study conducted by Jadhav et al., the best practices were assessed in terms of stakeholders' view of international health tourism. Chanin et al. examined the Middle Eastern tourist behaviors and needs for health tourism, along with the health tourism management guidelines for these tourists. In another study, Crooks et al. evaluated healthcare tourism in Canada, while Dr̃aghici et al. have determined the role of health tourism in the development of regional systems in Romania between 2000 and 2012, a period of great transformations in this economic sector. Health and wellness tourism is an expanding field, and several scholars have defined health tourism concepts. Health tourism is commonly divided into wellness tourism and medical tourism. Based on the studies performed by Smith and Puczko (2009, 2014), wellness in this study is defined as a concept including physical, mental, and spiritual wellbeing, as well as elements of lifestyle, and one's relationship with oneself, others, and the environment (Sigurðardóttir, 2018).

The health tourism supply chain in Razavi Hospital, Mashhad, Iran, consists of the following categories:

- Category 2 suppliers include food and beverage suppliers, equipment suppliers, handicraft suppliers, waste recycling and disposal, furniture suppliers, water and energy suppliers
- Category 1 suppliers include accommodation, transportation, sightseeing, dining, shopping
- Service provider category 3 includes tour operators
- Service provider category 2 includes travel agencies

- Service provider category 1 includes hospitals and medical centers

This study attempted to identify the health tourism supply chain in Iran to manage and design the entire processes required for the execution of a coordinated system of health tourism.

New aspect and innovation in research

- Study of different categories of health tourism supply chain in Iran
- Identify strengths, weaknesses, opportunities, and threats (SWOT) of the health tourism supply chain in Iran
- Develop strategies to manage the health tourism supply chain in Iran

Important and necessity of research

- Few studies in the world and especially in our country on the supply chain of health tourism
- Existence of high tourism capabilities in our country and the existence of various historical and religious sites in different parts of the country
- Many advantages in the field of medicine in our country, such as modern technologies, global standards, the economics of treatment, and low medical costs, ahead of neighboring countries and the Middle East
- Natural features, such as hot springs, springs, sludge springs, and numerous caves

2. Method

This field study intended to formulate strategies and set goals as well as the indicators of the health tourism supply chain in Razavi Hospital, Mashhad, Iran, through an environmental analysis to determine strengths, weaknesses, opportunities, and threats of the health tourism supply chain. The steps that are followed in this study include:

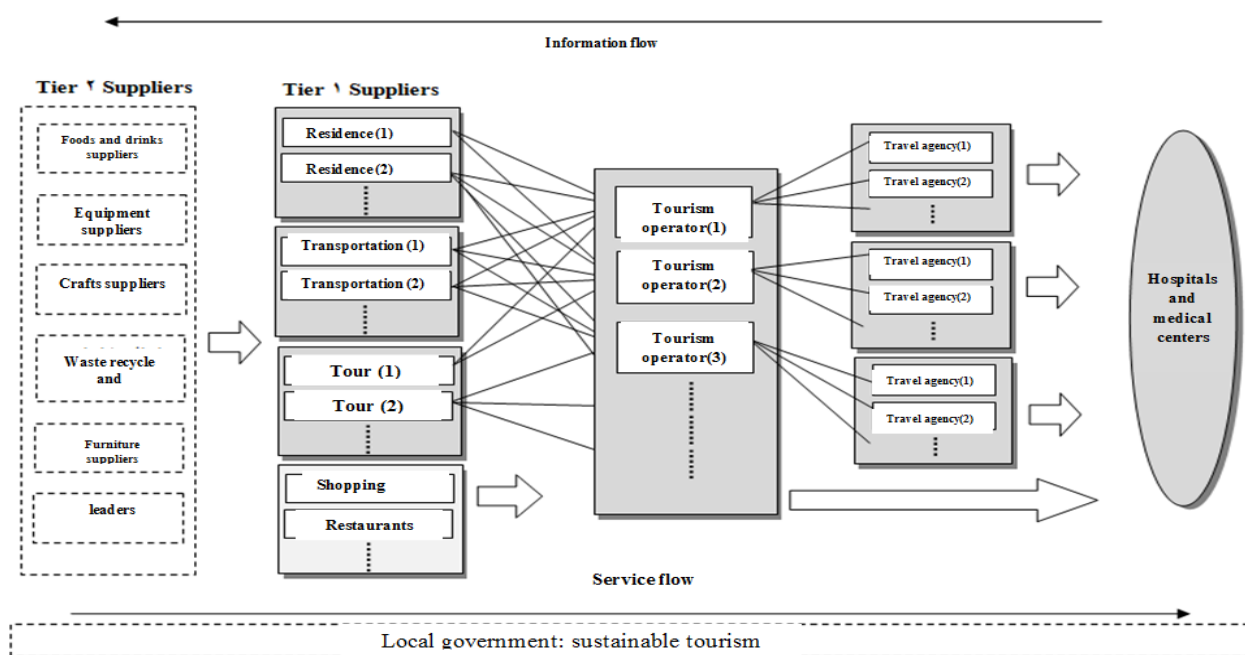


Figure 1. Schematic of health tourism supply chain

- Analysis of definitions, concepts, and literature
- Review of the literature, summarization, and gap-bridging
- Systematic analyses for strategy formulation
- Presentation of strategic goals and measures

3. Findings

3.1. Analysis of internal and external environment

The results of internal and external environment analyses were used to obtain necessary information for the analysis of the Internal Factor Evaluation (IFE) and External Factor Evaluation (EFE) matrix, as well as exploit strengths and opportunities in SWOT analysis.

3.2 Analysis of external environment

In this study, the external environment was analyzed using the PESTEL analysis and Porter's five forces as follows:

3.2.1. Analysis of the external environment by PESTEL

Based on the analysis of political, economic, social, legal, and technological factors, it illustrates a framework of macro-environmental factors used in environmental analysis. The following section presents the results of applying PESTEL analysis to health tourism (7).

The Norton Kaplan method, the proposed scientific method that is used in various industries, has been selected due to the need to perform and analyze the external environment. To analyze the business environment, the PESTEL model can be used which examines the various aspects of this technique for industry. Business is essential, and in addition to helping to understand the market, this framework is one of the pillars of strategic management that not only determines what an organization should do but also considers the goals and strategies of the organization. As a result, each of these factors will likely be relevant to different industries in different ways. However, for any strategy that a company wants to develop, PESTEL analysis is necessary. This model is examined to describe the macro-environmental factors affecting a business. Various definitions and versions of PESTEL are available, such as PEST (Deer, 2006) and STEPE (Richardson, 2006). The PESTEL model is used in various sectors as part of the strategic analysis technique (Yuksel, 2012). This model can be used to understand the big picture of the business environment, industries, and countries. The components of this model are as follows (Yuksel, 2012):

3.2.1.1. Analysis of political environment

The most important factor influencing strategic decisions of Razavi Hospital is the political environment that encompasses the following subjects:

1. The Joint Comprehensive Plan of Action (JCPOA) and the relative improvement of the business environment in the last decade.
2. Development of relations with regional states

The JCPOA agreement, as one of the most important political achievements of Iran in the international arena during the past 12 years, has contributed to the lifting of extensive sanctions. It is projected that international

relations and development of sustainable economic growth and foreign investment in Iran will be further facilitated by the greater presence of Iran in the international community. Despite tensions between Iran and regional states, especially Saudi Arabia and to some extent Turkey, it is projected that even in the one-year horizon, Iran will experience a breakthrough in its relationships with most countries in the world, especially European countries, which is expected to contribute to the expansion of business environment in the health sphere. It is already evident in new agreements with Austria to establish 320-bed hospitals in Shiraz and Tabriz (8).

Overall, the analysis of macro-political issues indicates that Iran is going through a milestone in its political history, and it is presumed that these changes will improve the political environment and consequently economic space in Iran. From an external perspective, regional and trans-regional crises have created an opportunity for Iran, the proper analysis of which can bring about a host of benefits in different areas for Iran. Therefore, several opportunities are lying ahead of Razavi Hospital including:

- Development of international relations and expansion of health tourism
 - Facilitated exchange of experiences with top hospitals in the world
 - National economic growth and development, as well as improved health expenditure per capita in Iran
 - Possibility of interaction and import of advanced medical equipment, which was previously unavailable due to sanctions imposed on Iran
 - An improved public attitude of various communities towards Iran after positive outcomes of JCPOA
- The development of health tourism in Iran, especially Razavi Hospital will be discussed in the following section.

3.2.1.2. Analysis of economic environment

The most important factor affecting the strategic decisions of Razavi Hospital is the economic environment, which includes the following subjects:

1. Recession of business environment during the past decade
 2. Weak presence of private sector in the national economy
- Global analyses about the business environment and position of Iran indicate the deplorable condition of Iran in the global economy, which is ranked 45 in terms of the ease of doing business and 144 in transparency as well as lack of corruption. This reveals the undesirable business environment facing the private sector, which will ultimately affect Razavi Hospital. Predictions for the medium-term and long-term economic conditions of Iran are more promising. Furthermore, Iran has been determined to join World Trade Organization as well. On the other hand, the state-run public sector constitutes the widest segment of the Iranian economy, which hardly allows the private sector to contend with other government-related and para-governmental sectors. Accordingly, any investment in the private sector requires dedicated concentration to make room for the growth of an organization. Concerning the points raised above, Razavi Hospital expects to face the

following threat at least within the next two years:

- Increased risks resulting from undesirable business environment for the development and expansion of the private sector

The arrival of each health tourist creates two direct and five indirect job opportunities for physicians, nurses, and several other people indirectly involved in this process at the hospital, transportation, hotels, recreation and entertainment centers, as well as shopping malls. The revenues generated by each health tourist are three times greater than that of ordinary tourists. The revenues of health tourism at the global level is over 20 billion dollars in a year, and it is estimated to account for 44 billion dollars revenue only in Asia during 2012. The recent enactment of regulations and criteria governing the establishment of medical tourism centers in the country reflects our tardiness in taking action in this domain (9). Each health tourist brings in at least 3000\$, which together with revenues generated from areas of production and services, recreation centers, crafts industry, and principally anything that patients and people accompanying them buy as souvenirs can contribute to the economic growth of the country.

With the arrival of health tourists, residential centers and hotels will be receptive to a new group of tourists. Tourism in the 21 century is a major stimulus for promoting quality of life. One major goal is to facilitate communication between people and eventually foster world peace. Tourism is a part of the service-based economy that is expanding throughout the world. Therefore, the ultimate goal of any tourism policy is to achieve a balance of benefits and costs and ultimately improve the lives of people in the host community. Today, key issues discussed in tourism include legislation and public policy, as well as infrastructural issues, such as information technology and financial organizations.

3.2.1.3. Analysis of social environment

The most important parameters affecting strategic decisions of Razavi Hospital, which should be considered from a social perspective, are as follows:

1. Population growth and urbanization
2. Increased human resources and job seekers
3. Increased demand for services and changing life patterns of domestic and international patients

Population growth is tantamount to increased demand for products and services, especially health care. Moreover, any change of lifestyle leads to a qualitative and quantitative change of services in health care. Therefore, a change of pattern can be observed from treatment towards preventing measures in these services. Finally, the change of age pyramid of society is associated with a change of composition, diversity of diseases, and a hike in middle- and old-age illnesses. Despite the growing number of job seekers, especially in the field of medicine, a potential threat is posed to the nursing system in hospitals, where we face a lack of qualified workforce today and in years to come. With the analysis of the social environment, Razavi Hospital should address the following major threats and opportunities:

- Population growth, changing lifestyles, development of the disease, and significance of preventive policies as an opportunity
- Planning to overcome nursing shortage as a threat to providing services to national and international patients

3.2.1.4. Analysis of technological environment

The most important factors affecting the strategic decisions of Razavi Hospital, which should be considered from a technological perspective, are as follows:

1. Rapid growth of information technologies
2. Innovation in medical sciences and diagnostic technologies, as well as the development of new treatments
3. Cultural issues regarding the appropriate use of technology
4. Relative backwardness of Iran in terms of access to advanced technologies

Information and communication technology grow 20 times faster than other areas. Modern hospitals in the world are equipped with intelligent hospital systems underpinned by information technology. However, there is a widening gap between Iran and developed countries in this regard. This distance is less recognizable in diagnostic and treatment technologies with some Iranian hospitals being equipped with modern diagnostic and treatment technologies of the world. In some cases, there are even signs of indulgence, meaning that advanced technologies are purchased without a meticulous analysis of their capacity and ample instances of unnecessary treatments in the country.

With analysis and evaluation of the technological environment, Razavi Hospital should take the following cases as an opportunity:

- The necessity of information and communications technologies development as an important tool to promote safety and quality at hospitals, particularly in the field of health tourism
- The technological modernization and reconstruction as a requirement of keeping pace with global progress and development and achieving the 2025 vision defined for hospitals
- The accurate assessment of technologies before upgrading their capacity, and their impact on promoting quality and safety in hospitals, especially concerning the admission of international patients

3.2.1.5. Analysis of ecological environment

The most important factors affecting the strategic decisions of Razavi Hospital, which should be considered from an ecological perspective, are as follows:

1. Global drought crisis
 2. Iran as a country in the center of ecological crisis
- Up to the year 2100, one of the key challenges facing humans is global warming and its ensuing crises. Such repercussions are so grave that can give rise to the prevalence of many diseases in the world. Lack of access to safe drinking water can solely cause many underlying diseases. According to ecological analyses,

Iran is categorized as one of the most critical states in terms of ecological issues. The process of desertification, drought, and heating, as well as the inappropriate use of resources, have created serious crises in many provinces of Iran. Ecotourism is proliferating in biodiversity hotspots, and its proponents claim it can achieve conservation and economic development goals. Ecotourism has become

a major driver of economic growth and socio-economic transformation in many areas. The amount spent on ecotourism is estimated to be 10 times more than that spent by official aid agencies and the United Nations Global Environment Facility on conservation projects (Kirkby et al., 2011; Waldron et al., 2017).

Table 1. Analysis of conditions governing industry using Porter's model

The first force: Intensity of competition among existing rivals	
Mean	The more rivals in an industry are comparable in terms of factors, such as capital, technology, quality, and production, or the greater is the number of competitors or fixed costs in an industry, or inhibiting barriers (such as state policies or heavy investment), the greater will be the intensity of competition.
3.254901961	Fixed costs of the health tourism industry (How high are fixed costs of the health tourism industry in hospitals?)
	The rate of market growth for the development of industry (How are the growing and progressing rates of health tourism in the country?)
	The intensity of the rivalry among existing competitors (To what extent other hospitals in the country are developing health tourism?)
	The extent of service variation offered to competitors by investors. (To what extent services offered by competitors (other hospitals in the country) to customers in health tourism is varied and distinct?)
	The extent of development capacity building, compared to competitors (To what extent hospitals in developing countries attempt to increase their health tourism potentials?)
	The level of freedom for the provision of services in the industry (To what extent laws and regulations facilitate health tourism?)
The second force: The bargaining power of the company's customers	
Mean	The greater is the number of customers in an industry or the desired product is important to customers and the lower is purchase size, or technical information of customers about the process and product, the lower is their bargaining power. Moreover, if the customers (buyers) have high integration power, meaning that they can purchase or control their higher-level industry, their bargaining power rises. Considering the variety and multiplicity of service providers, customers have various choices at their disposal.
3,51111111	The number and size of customers (How extensive is the range of current and potential customers of health tourism?)
	The cost of converting or switching (How convenient is this for tourists to obtain service from rivals?)
	Alternative services to customers (Are there any alternative strategies in addition to the proposed solutions for customers, such as complementary and traditional medicine)
	The uniqueness of services offered to customers (How exclusive are the services offered to health tourism customers?)
	The financial dependence of the health tourism industry on customers (How important is health tourism to us financially?)
The third force: The bargaining power of the company's suppliers	
Mean	The greater is the number of suppliers in an industry, or the number of alternative products offered by a supplier or the higher are fixed costs of a supplier (because it is reluctant to go out of the market, intending to continue its sale under any circumstances), the lower is the bargaining power of the supplier. Moreover, if there is a great discrepancy between products of suppliers or the supplier possesses the downward integration power (i.e., the ability to own or control their affiliated units, such as clinics and hospitals) in the supply chain, the bargaining power of suppliers is increased.
3,046511628	The number and quantity of production by main suppliers (Are there many leading suppliers?)
	The cost of converting or switching (How convenient is it to change the supplier? The more convenient it is, the lower is the score.
	Flexibility and variety of products and services of suppliers (To what extent leaders, as main suppliers, have variety in their services?)
	The role of suppliers in the quality of company products (To what extent suppliers are involved in the quality of services provided? For example, some important and exclusive suppliers)
	The significance of our activities for suppliers and the difficulty of findings new customers (How important are we in the view of suppliers? The more important we are in their view, the lower is their bargaining power.)

Table 1. Analysis of conditions governing industry using Porter's model	
The fourth force: New competitors (barriers to entry)	
Mean	New rivals appearing in the competition scene seek to gain a larger market share. Overall, this force consists of factors that either facilitate or hampers the entry of new rivals into the realm of competition. If the initial required capital to enter an industry is high, or access to distribution channels is difficult (such as entry in the field of medicinal products) or the existing players have special privileges (like a recognized brand) or the distinction is greater in the industry (like the difference between the automotive industry and petrochemical industry with gypsum industry) or a long time is required to bring the industry to the minimum cost (the learning and experience curve) or the state is more strict about the entry of newcomers (in terms of laws of exchange market or environmental regulation), the threats posed by newcomers are relieved.
3.25	The access of newcomers to technology and processes of service provision (To what extent do newcomers have access to technologies and processes?) The access of newcomers to suppliers (To what extent are newcomers able to access suppliers?) Inhibiting laws for the entry of rivals (How restrictive are the laws for the entry of rivals in the field of health tourism?) The amount of initial investment required to enter this field (How much initial capital is required to enter this industry?)
The fifth force: Threats posed by alternative product/service	
Mean	The more convenient is it for a product to replace another product, the higher is its substitution power, and consequently, the fiercer is competition in that industry. In general, it is more convenient for a product to replace other products if it possesses higher function and lower cost. For instance, motorcycle cannot replace a passenger car on the road because they are not equal in terms of function. Similarly, a product of greater profits is more appealing with respect to alternative production.
3,325581395	The risk of offering alternative services (How threatening would be new services to our position in this industry?) The cost of conversion or replacement for replacement services (To what extent a tourist can receive services from other centers instead of obtaining service from us?) The profitability and influence of new services (How profitable are new services?) The tendency of rivals to provide alternative services (How willing are rivals to present new services?) The tendency of customers to use alternative services (How likely are customers to welcome new services?)

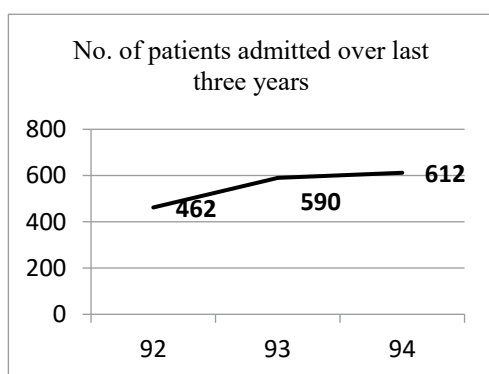


Chart 1. Number of patients admitted in the last three years

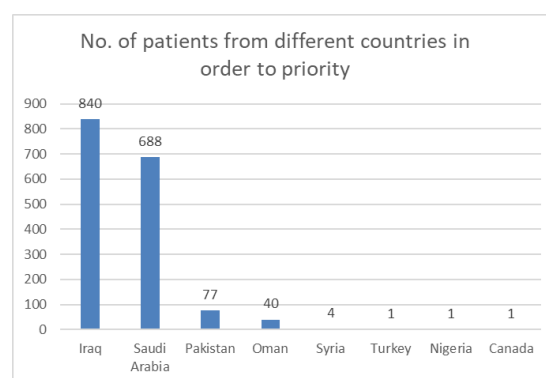


Chart 2. Number of patients from different countries in order of priority

Ecotourism accounts for as much as 40% of the gross domestic product in some countries and is growing 10% per year in other countries (World Travel and Tourism Council, 2014). With regard to the environmental analysis of threats, Razavi Hospital is determined to incorporate the following points in its strategic plan (Brandt, 2019):

- Playing a leading role in eco-friendly hospitals by implementing standards associated with preserving the environment and Green Hospital such as ISO14001.

- Supporting activities and measures in the field of prevention and becoming a hospital with comprehensive health services at national and international levels.

- Paying greater attention to the issue of eco-tourism in health tourism to impose minimum environmental and natural damages

3.2.1.6. Analysis of legal environment

The most important factors affecting the strategic decisions of Razavi Hospital, which should be considered from a legal perspective, are as follows:

1. Inhibiting laws governing the business environment
2. Complicated bureaucracy
3. Possibility of changes in laws and enactment of supportive laws

Concerning legal analyses, Razavi Hospital has to take into account threats and opportunities to formulate a strategic plan:

- Difficult path of growth and development considering the rising bureaucracy in legal and public spheres of the country

Table 2. Evaluation of internal factors

No.	Internal factors	Relative importance	Rank	Final score
	Strengths			
S1	Tourism attractions	4%	4	0.16
S2	The comprehensiveness of medical services and positive precedent of medical background and equipped medical centers in Iran	3%	4	0.12
S3	Favorable climatic conditions	2%	3	0.06
S4	The exceptional geopolitical position of Iran with its 15 neighboring states	3%	3	0.09
S5	The availability of numerous tourism facilities, such as travel agencies, airports, shopping centers, and foreign airlines	1%	3	0.03
S6	The holy shrine of Imam Reza (as) in Mashhad	5%	4	0.20
S7	Specialized units in Razavi Hospital	2%	3	0.06
S8	Implementation of international standards in Razavi Hospital	5%	4	0.20
S9	Respect and reverence to the patients in Razavi Hospital	1%	3	0.03
S10	Modern equipment and excellent accommodation provided by Razavi Hospital	5%	4	0.20
S11	Low-cost human resources	1%	3	0.03
S12	Direct and indirect job creation with the arrival of patients/health tourists to the country	2%	3	0.06
S13	The indirect propagation of health tourism activities in Razavi Hospital	1%	3	0.03
S14	Revenues derived from the admission of foreign patients	4%	4	0.16
No.	Weaknesses	Relative importance	Rank	Final score
W1	Lack of proper management in firms active in the field of health tourism	4%	2	0.08
W2	Failure to observe international standards in most hospitals of Iran	1%	1	0.01
W3	Lack of professional facilitating firms in the existing cycle, and therefore, a strong presence of mediators and dealers	5%	2	0.10
W4	Legal problems (customs, visas, insurance)	3%	2	0.06
W5	Inability to organize patients at the time of arrival	2%	2	0.04
W6	Negative propaganda of foreign media against Iran	1%	1	0.01
W7	Lack of fixed price for the provision of services to foreign patients	1%	1	0.01
W8	Absence of state support and advertising for health tourism	3%	1	0.03
W9	Non-cooperation of personnel and doctors with the hospital due to time-consuming nature of these activities and the matter of profits	1%	2	0.02
W10	Improper condition of paying commissions to leaders	3%	2	0.06
W11	Failure to offer some low-cost and convenient services, which are highly popular	2%	1	0.02
W12	Absence of an integrated system in the Ministry of Health and complex red tape restricting the implementation of new projects	4%	2	0.08

Table 2. Evaluation of internal factors

W13	The inefficiency of communication systems in neighboring countries and Iran, as well as patient's unawareness of services provided in Razavi Hospital	1%	2	0.02
W14	Linguistic and cultural incompetency and improper training of hospital personnel	4%	2	0.08
W15	Lack of sustainable financial resources, and therefore, the deficiency of financial resources to deliver special services to international patients	1%	2	0.02
W16	Inappropriate and non-professional treatment of international patients	5%	2	0.10
W17	The absence of coordination between authorities and relevant organization to foster cooperation	1%	2	0.02
W18	The absence of any relation with international insurance companies and utilization of credit card systems to pay the cost of patients	1%	2	0.02
W19	Lack of a legal body (Medical Council for Iranian patients) to pursue medical malpractice reported by the international patients	1%	2	0.02
W20	Lack of a regulatory system to monitor service providers	1%	2	0.02
W21	Inefficient communication culture for service provision, which leads to the discontent of international patients due to their unfulfilled expectations	1%	1	0.01
W22	Absence of a meticulous analysis of competitors (other countries) in terms of service costs	1%	2	0.02
W23	Financial conflicts between leaders and the hospital	5%	2	0.10
W24	The absence of an authentication system to confirm the identity of patients which may pose risks and threats to the hospital	1%	2	0.02
W25	The overall underdevelopment of the tourist industry in Iran	1%	1	0.01
W26	Dependence on the oil industry, which may act as a barrier to the tourism industry, and consequently, health tourism	1%	1	0.01
W27	The unwillingness of the private sector to invest in the tourism industry	1%	1	0.01
W28	Absence of a mechanism to promote popular culture to support tourism in general and health tourism in particular	1%	2	0.02
W29	Inadequacy of health and medical facilities in comparison to other countries in the region which are active in the realm of tourism	1%	2	0.02
W30	Transportation problems and lack of an efficient system for inter-city transport	1%	1	0.01
W31	Absence of a supervising organization in the field of health tourism to provide services following international standards	1%	2	0.02
W32	Absence of specialized and skilled staff in the field of health tourism	1%	1	0.01
		100%		2.51

Scores higher than 2.5 indicates the relative strength of internal factors, compared to weaknesses

• Emphasis on health tourism by high-ranking state officials following the directives and policies issued by the Supreme Leader

3.2.2. Porter's five forces analysis

The interaction of these five factors determines the nature or intensity of competition in the industry (e.g. hospitals or health tourism). This is the aggregate strength of forces that can bring in ultimate profitability to a business (11). The results of analyzing Porter's five forces based on

the self-administered questionnaire, which explored the views of health tourism experts, are as follows:

3.2.2.1. Analysis of results achieved form applying Porter's five forces model to the health tourism in Razavi Hospital, Mashhad, Iran

The following list of priorities was obtained based on the analysis of experts' comments in the interviews. Accordingly, Razavi Hospital in Mashhad, Iran, in keeping with these priorities, should take appropriate strategies

to implement key priorities and criteria related to health tourism:

1. **The first force:** The bargaining power of customers with a score of 3.51 out of 5 (70.21%) obtained the highest threat and strength among Porter’s five forces. Therefore, Razavi Hospital should adopt appropriate strategies in the

- Financial potentials of the hospital to develop health tourism
- Modern equipment and technology to attract tourists
- Economic and affordable health costs to attract tourists
- Suitable hotels for patients’ accommodation
- Airport Council International standard

Table 3. Evaluation of external factors

No.	External factors	Relative importance	Rank	Final score
Opportunities				
01	Recent political developments and capital inflows along with JCPOA and relative improvement of business space in the next 10 year	13%	4	0.52
02	Facilitating the process of issuing visa for tourists	5%	4	0.2
03	A willingness to establish facilitating firms that act similar to their foreign counterparts	5%	4	0.2
04	Job creation for the youth	4%	4	0.16
05	Turmoil in the neighboring countries, which drives patients to our country	4%	3	0.12
06	Turbulent diplomatic relations in rivaling countries (e.g., Turkey and Russia) which can help promote many factors, including health tourism in Commonwealth of Independent States countries	4%	3	0.12
07	Access to suitable tourist facilities in Mashhad, including several 5-star hotels, recreational centers, convenient transportation, and new airlines (Oman Air) and purchase of new aircraft to modernize the Iranian air fleet by Airbus and Boeing companies	4%	3	0.12
08	The absence of medical standards and guidelines in most hospitals	5%	3	0.15
09	Population growth, changing lifestyles, disease growth, and emphasis on prevention programs	3%	3	0.09
10	Development of eco-tourism industry	1%	3	0.03
11	The emphasis of high-ranking state officials on the health system, especially directives issued by the Supreme Leader	6%	4	0.24
Threats				
T1	The presence of international companies active in the region in countries, such as Turkey and India	4%	2	0.08
T2	Payment of higher commission to leaders by the other health centers	5%	2	0.1
T3	The arrival of individuals with unauthenticated identity from unstable countries in the region, and the possibility of cultural influence	1%	1	0.01
T4	Turbulent relations with neighboring countries (history and experience have shown that countries with cordial and friendly relationships may change their position overnight and turn into enemies)	5%	1	0.05
T5	A radical change in general policies of the world and counties of the region towards Iran (imposition of sudden sanctions)	3%	1	0.03
T6	The absence of an integrated commercial and banking system (failure of Iran to join the World Trade Organization and inefficiency of money transfer system)	10%	1	0.1
T7	The remarkable cost difference between medical centers and interaction of medical practitioners with mediators	6%	2	0.12
T8	Conflicts among leaders	5%	2	0.1
T9	A business environment held back over the past 10 years	2%	2	0.04
T10	Weak governance of the private sector in the economic sphere	1%	1	0.01
T11	The underdevelopment of Iran in terms of advanced technologies	2%	1	0.02
T12	Iran as a country in the center of the environmental crisis	1%	1	0.01
T13	Inhibiting business regulation in current economic sphere	1%	1	0.01
		100%		2.63

Scores higher than 2.5 indicate the superiority of opportunity over threats

Table 4. Strengths, Weaknesses, Opportunities, and Threats Matrix

Strengths, Weaknesses, Opportunities, and Threats Matrix	<ol style="list-style-type: none"> 1. Recent political developments, capital inflows along with the joint plan of action, and relative improvement of business space in the next 10 year 2. Job creation for the youth 3. The absence of medical standards and guidelines in most hospitals 4. The emphasis of high-ranking state officials on the health system, especially directives communicated by the Supreme Leader 	<ol style="list-style-type: none"> 1. Other centers pay a higher commission to leaders 2. Remarkable cost difference between medical centers and interaction of medical practitioners with mediators
<ol style="list-style-type: none"> 1. Tourism attractions 2. Comprehensiveness of medical services and positive precedent of medical background, medical centers, and facilities in Iran 3. The holy shrine of Imam Reza (as) in Mashhad, Iran 4. Implementation of international standards in Razavi Hospital 5. Revenues derived from the admission of foreign patients 	<ol style="list-style-type: none"> S1.2.3.4.5O1 Development of health tourism in the hospital S4.5O3.4 Establishment of health tourism offices in neighboring countries and borderlines 	<ol style="list-style-type: none"> S1.2T1.2 Organizing the payment system and interaction with leaders
<ol style="list-style-type: none"> 1. Absence of professional facilitating firms in the existing cycle, and therefore, a strong presence of existing mediators and dealers 2. Improper payment method of leaders 3. Lack of an integrated system in the Ministry of Health and red tape restricting the implementation of new projects 4. Linguistic and cultural incompetency and improper training of hospital personnel 5. Inappropriate and non-professional treatment of international patients 6. Leader's conflict with hospitals over financial matters 	<ol style="list-style-type: none"> W4O2.4 Organizing English and Arabic teaching classes for hospital personnel W5O2 Organizing training courses about the proper treatment of international patients 	

3.3.2.2. Overall area of improvement in the EFQM self-assessment

- The problem of consolidating approaches, especially among hospital staff
- Inadequacy of measurement, learning, and sharing system
- Lack of a suitable procedure to assess the satisfaction of health tourism stakeholders
- Lack of optimum data mining system to compare hospital data with that of other hospitals and the leading examples in the world

3.4. Industry environment analysis based on rules and documents

The industry setting is the context in which Razavi Hospital intends to provide its services. Moreover, there are laws, development plans, and higher-level documents that should be taken into account by the hospital along with other inhibiting and preventive factors. Considering that health tourism is in keeping with strategic documents

and objectives of the Health Sector projected for the year 2025, further investment is justified in this area.

0.3. Setting the vision, mission, and values of health tourism in Razavi Hospital

According to the views of health tourism experts in Razavi Hospital and based on the results of internal and external environment analyses, the following objectives were set:

3.2.4.1. Vision of Razavi Hospital in Health Tourism

The first choice of international patients in service provision

3.2.4.2. Mission of Razavi Hospital in Health Tourism

To help promote the health of international patients by relying on international standards

3.2.4.3. Values of Razavi Hospital in Health Tourism

- Safety of patients
- Observance of Islamic ethics and Razavi tradition
- Learning and innovation

Table 5. Quantitative Strategic Planning Matrix

	Internal factors	Organizing the payment system and interaction with leaders		Developing training courses about proper treatment of international patients		Organizing English and Arabic teaching classes for hospital personnel		Establishment of health tourism offices in neighboring countries and borderlines		Development of health tourism		Final score
		TSA	SA	TSA	SA	TSA	SA	TSA	SA	TSA	SA	
Opportunities												
1	Recent political developments and capital inflow along with the Joint Plan of Action and relative improvement of business space in the next 10 year	0.52	1.00	0.52	1.00	0.52	1.00	2.08	4.00	2.08	4.00	0.52
2	Job creation for the youth	0.16	1.00	0.16	1.00	0.16	1.00	0.48	3.00	0.32	2.00	0.16
3	The absence of medical standards and guidelines in most hospitals	0.15	1.00	0.15	1.00	0.15	1.00	0.15	1.00	0.60	4.00	0.15
4	The emphasis of high-ranking state officials on the health system especially directives issued by the Supreme Leader	0.24	1.00	0.24	1.00	0.24	1.00	0.72	3.00	0.72	3.00	0.24
Threats												
1	Other centers pay a higher commission to leaders	0.40	4.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10
2	The remarkable cost difference between medical centers and interaction of medical practitioners with mediators	0.24	2.00	0.12	1.00	0.12	1.00	0.12	1.00	0.12	1.00	0.12
Internal factors												
Strengths												Final score
1	Tourism attractions	0.10	1.00	0.10	1.00	0.10	1.00	0.20	2.00	0.40	4.00	0.10
2	The comprehensiveness of medical services, positive medical precedent, as well as equipped and modern medical centers in Iran	0.06	1.00	0.06	1.00	0.06	1.00	0.24	4.00	0.24	4.00	0.06
3	The holy shrine of Imam Reza (as) in Mashhad	0.20	1.00	0.20	1.00	0.20	1.00	0.80	4.00	0.80	4.00	0.20
4	Implementation of international standards in Razavi Hospital	0.20	1.00	0.20	1.00	0.20	1.00	0.60	3.00	0.80	4.00	0.20
5	Modern technology and proper accommodation of patients in Razavi Hospital	0.20	1.00	0.20	1.00	0.20	1.00	0.80	4.00	0.80	4.00	0.20
6	Revenues derived from the admission of foreign patients	0.16	1.00	0.16	1.00	0.16	1.00	0.64	4.00	0.64	4.00	0.16
Weaknesses												
1	Absence of professional facilitating firms in the existing cycle, and therefore, a strong presence of mediators and dealers	0.10	1.00	0.10	1.00	0.10	1.00	0.30	3.00	0.10	1.00	0.10
2	Improper payment terms of leaders	0.24	4.00	0.06	1.00	0.06	1.00	0.12	2.00	0.06	1.00	0.06
3	Lack of an integrated system in the Ministry of Health and red tape restricting the implementation of new projects	0.24	3.00	0.08	1.00	0.08	1.00	0.16	2.00	0.08	1.00	0.08
4	Linguistic and cultural incompetency and improper training of hospital personnel	0.08	1.00	0.08	1.00	0.32	4.00	0.08	1.00	0.08	1.00	0.08
5	Inappropriate and non-professional treatment of international patients	0.10	1.00	0.40	4.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10
6	Leader's conflict with hospitals over financial matters	0.40	4.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10	1.00	0.10
Total		3.79	30	3.03	21	2.97	21	7.79	44	8.1	45	
Priority		3		4		5		2		1		

- Partnership and teamwork

3.3. Codification of Strategy

3.3.1. Strengths, weaknesses, opportunities, and threats of Razavi Hospital

Strengths, weaknesses, opportunities, and threats of Razavi hospital were identified based on the results of interviews with selected activists in this field, and the

process of strategy formulation was carried out as follows:

3.3.2. Determination of the Internal Factor Evaluation Matrix

3.3.3. Determination of External Factor Evaluation Matrix

Therefore, Razavi Hospital gives priority to strategies that can utilize opportunities based on their strong points.

With this approach, the strategic standing of the hospital is placed in an invasive position, meaning that financial capacity, environmental conditions, competitive advantage, and industrial power allow the hospital to adopt invasive strategies to acquire an appropriate position in health tourism.

3.3.4. Strengths, Weaknesses, Opportunities, and Threats Analysis

3.3.5. Prioritizing Strategies by Quantitative Strategic Planning Matrix

The Quantitative Strategic Planning Matrix (QSPM) method determines the viability of strategic options. Furthermore, this matrix prioritizes strategies extracted from the SWOT matrix out of which main strategies are derived from the list of available strategy prioritization.

According to the QSPM matrix and its outputs, the top strategy of Razavi Hospital is “health tourism development”. Moreover, based on the results of the QSPM matrix, secondary strategies are selected in order of priority as follows:

1. Development of health tourism
2. Establishment of health tourism offices in neighboring countries and borderlines
3. Organizing English and Arabic teaching classes for hospital personnel
4. Developing training courses about the proper treatment of international patients
5. Organizing the payment system and interaction with leaders

3.3.6. Determination of Objectives

Accordingly, the macro objectives set in the field of health tourism to fulfill the vision and macro strategies of tourism of hospital are as follows:

G1: Concerning recipients of services and society:

promote the satisfaction of service recipients and beneficiaries of international patients

G2: Concerning financial aspect: increase hospital revenues

G3: Concerning therapeutic and support processes: promote the treatment processes of international patients

G4: Concerning growth and learning: improve the institutional capacity and develop human resources to provide services to international patients

4. Conclusion

4.1. Preparation of a balanced scorecard

According to the results of previous sections, the balanced scorecard was prepared as follows. However, it requires monthly monitoring to control and examine the determined measures.

Conclusion

Health tourism provides social and cultural formation opportunities for societies, thereby improving development, international interactions, communications, and relations. Given that medical trade is also evolving to become a global market, health tourism today can also be considered one of the major driving forces in global health care providing countries with a competitive advantage. Among the tangible benefits, one can count the cash flow to be generated by this new industry which would also impact the healthcare and medical markets. With the development of healthcare-related markets, it is expected to see a rise in the numbers of new businesses and a reduction in the unemployment rate. This emerging market would also lead to increased information exchange between various parties with a positive impact on the overall know-how and technological abilities of countries and regions. Following the technological advancement, although they originated from the effort to serve foreign patients, they would also benefit domestic patients, thereby increasing the level of satisfaction.

Table 6. Balanced scorecard indices truism

BSC dimensions Macro goals	Strategic goal (objectives)	Measure	Optimal direction	2015 objective	2016 objective	2017 objective	2018 objective	2019 objective	2020 objective
Recipients of services and society (promoting the satisfaction of service recipients and beneficiaries)	Increase share of the hospital in health tourism	Health tourism patients	Incremental	5000	6500	7500	8600	9900	11400
		Share of health tourism from total revenue	Incremental	3.1	3.5	4.1	4.8	5.6	6.5
Financial aspect (financial sustainability)	Increase share of the hospital in health tourism	Revenues derived from health tourism	Incremental	63795	85291	118147	167365	241633	354791
Therapeutic and support processes (promoting treatment procedures)	Promoted safety	The infection rate of international patients	Reductive	TBD ¹					
Growth and learning (improving institutional capacity and human resources)	Empowerment of human capitals	Number of training classes on health tourism	Incremental	2	4	6	8	10	12

This study utilized the SWOT analysis to study health tourism in Razavi Hospital, Mashhad, Iran, to select the best strategy for its effective implementation. In addition to the findings from the SWOT analysis, weaknesses have been transformed into stronger directions by utilizing existing strengths. Strategies for evaluating opportunities have also been included as part of the analysis. Following this, an integrated Hesitant Fuzzy Linguistic (HFL) Analytical Hierarchy Process (AHP) and HFL Multi-Attributive Border Approximation area Comparison method were presented to prioritize the SWOT factors and determine the best health tourism strategy in Razavi Hospital, Mashhad, Iran. The results showed that the proposed method could be used effectively to determine a strategy with the highest priority. The strategic evaluation showed that Razavi Hospital in Mashhad exhibited the characteristics of an actor “in the entrance hall” of the health tourism market implying the importance of establishing the right strategy to receive a significant share from this rapidly growing and high value-added sector. The data collection methods included interviews, questionnaires, observation, and document analysis. Strengths and weaknesses were analyzed and defined based on the IFE, and EFE was used to evaluate the threats and opportunities. Moreover, to develop strategies and indicators, several analytical instruments such as IFE, EFE, SWOT, QSPM, and EFE Balanced Scorecard (BSC) matrices were utilized in this study.

The BSC is one of the best and widely used models for evaluating the performance in hospitals, which deals with four evaluation points that learning is one of them. To employ this model, a conceptual model should be provided to develop a set of performance indicators in line with the hospital strategy goals. The purpose of this study was to investigate the role of learning in assessing the performance of Razavi Hospital using the EFQM criteria in the regulation of BSC indices. A SWOT analysis enables organizations to identify effective internal and external factors. The main aim of SWOT is to help organizations reach full awareness of all factors that are effective in decision making. This review included a comprehensive look at all internal and external sources and threats.

References

1. Salmani L. Tejarat dar khadamate salamat. 1392. 22 p.
2. Rakhshani nasab HR, Zarabi A. Chalesha va forsa-thaye eco-tourism dar iran. *Fazaye joghrafiayi*. 1388; 9(28):89–100.
3. Tavangar Masoomeh. Maleki Saeed. Analyzing Health Tourism Challenges in Mashhad. From the Perspective of Foreign Patients *Journal of Geography and Urban Space Development* Vol.2, No.2 (2015-2016) - S.N.2(43)43-45
4. Resendez S. International Healthcare Policy and Medical Tourism. *Grad Res J*. 2014;95–103.
5. E. Beny Paul Health Tourism: Customer Satisfaction with Reference to Amala Ayurvedic Hospital and Research Centre, Thrissur, Kerala *Asian Review of Social Sciences* ISSN: 2249-6319 Vol. 8 No. S1, 2019,(88) pp. 84-87
6. Chakraborty S, Bhattacharya S, Dobrzykowski DD. Impact of Supply Chain Collaboration on Value Co-creation and Firm Performance: A Healthcare Service Sector Perspective. *Procedia Econ Financ* [Internet]. Elsevier B.V.; 2014;11(14):676–94. Available from: <http://www.science-direct.com/science/article/pii/S2212567114002330>
7. <http://pestleanalysis.com/what-is-pestle-analysis/>. 1395.
8. www.tabnak.ir. 1394.
9. <http://www.mums.ac.ir/treatment/en/index> [Internet]. 2016. Available from: <http://www.mums.ac.ir/darman>
10. Johari F. Toseeh Gardeshgari Paydar. *Rahi Be Soye Hefz Tabiat Va Talab*. 1392.
11. Brandt* Jodi S. Volker Radeloff, Teri Allendorf. Van Butsch. Anand Roopsind Effects of ecotourism on forest loss in the Himalayan biodiversity hotspot based on counterfactual analyses © 2019 Society for Conservation Biology(2)