Identification of impediment in medical tourism industry: evidence of Iran’s medical tourism

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ABSTRACT
The aim of this study is to identify the impediments of developing medical tourism in Iran and categorize and prioritize them. Therefore, we interview 30 managers and key players in the industry of medical tourism which were in hospitals or medical tourism agencies. After extracting the important involved factors from our interviews, we design our questionnaire which was consist of 36 questions and distributed to 284 people in our sample. For analyzing data, Friedman test and t test were performed which use of SPSS 18 software. The results showed us the priority of the identified impediments is: factor conditions, strategy and structure, supporting industries and demand condition. According to our results we can say that government as a supporter in this industry can have crucial rule for setting rules and preparing safe and stable environment.

Introduction
The combination of medical and tourism seems to be brand new type of industry in the world (Michelle, 2004). Medical tourism is where tourists primarily seek medical treatment abroad and afterwards the more conventional form of tourism experience related to leisure and relaxation in tourist places (Song, 2010). In the past decades several Asia countries are dominate this industry but most countries have sought to enter the market (Cohen, 2007).

It is also crucial that the more advanced developing countries open their market more significantly and provide increased opportunities for this industry (Pennings, 2002). The main factors contributing to this phenomenon include long waiting lists for surgery, costly healthcare in industrialized countries (Hosay, et al., 2007). No or minimal insurance coverage in many developed countries, anonymity and surprising by medicine surgery in other countries, powerful communication between the various nations and states in the world, having natural resources in many developing and Asian countries for offering complementary and traditional medicine has led to the recent natural progression within health and medical from developed countries to developing countries (Connell, 2006). Many Asian countries involved after 1990 in the Asian economic crisis and the need to find economic diversification and solution for wake of this crisis (Percivil and Bridgeus, 2006). In the recent decades medical tourism is a fast growing industry in the Asian region and many countries are actively promoting it and the others such as Iran have sought to enter the market (Altes, 2005). According to Iranian cultural heritage news (2007), Iranian medical facilities are unique in the regions that can provide a massive potential for medical and health tourism and Iran can become a hub of medical tourism in the region in future (Howze, 2007).

With all the research in the field of medical tourism and with reviewing relevant literature, the bulk of the researches in the developing countries are concentrated on different strategies for developing this industry, and there is very few researches which have been investigated the impediments of developing such industry in the country (Mansfeld, 1992). Therefore the paucity of relevant research in the area of impediments of medical tourism justifies a comprehensive research in this area. Therefore, the aim of this study is to identify the relevant impediment for expanding the capabilities of medical tourism in Iran. For this purpose we will use Porter’s diamond model. Therefore, the rest of the article will be as below: at the first section we will review the relevant literature in which the diamond model and its components in medical tourism will be discussed thoroughly. At the second section the analysis will be presented and the last section of this study will be about the results, managerial implications, future studies and limitations of the study.

Literature review
Medical tourism in Iran:
Medical tourism is not new phenomenon in the world as well as in Iran. In the past, some people from neighbor countries especially from Arab countries of Persian Gulf came to Iran especially to Fars province to get heath care services (Sedighi, 2002). In this area in the country, there are no exact statistics about medical tourists came to the country but some resources indicated about 17500 patients came to Iran in 2005. The most popular procedures which are demanded include: advances treatment of cardiac treatment and surgeries, cosmetic surgeries productivity treatment, organ transplant (Atles and Besigna, 2006).

The main reason of coming patient to Iran are: quality of health services and low cost of treatments and drugs in comparison with other countries of the region, access to advanced and new medical procedures, equipment and qualified professionals and medical staff, similarity of culture and language in some regions of Iran with neighboring countries such as Iraq, Azerbaijan and lack of some medical procedures, equipment, medical professionals and health infrastructures in those countries combined with natural attractions, ancient and historical building in famous cities of Iran. Despite of these factors there are some impediments such as: difficulty for getting visa and political and safety risks naming a few. In one
of the researches in the realm of medical tourism in Iran the challenges for Iran to attract medical tourism is listed as below (Marlowe and Sullivan, 2007):  
- High competitive between medical tourism firms inside and outside of the country.  
- Lack of integrated and developed marketing plan and enough effort to develop one.  
- Low effort for designing advertising campaign for boosting Iran’s image in the world.  
- Lack of concentration on markets with high gross domestic product per capita.  
- Lack of enough number of medical centers in country which are globally accredited.  
- Lack of standardized prices and lack of developing integrated pricing program.  
- Low support of government for medical centers.  
- Lack of enough professional centers which can provide different medical procedures.  
- Lack of infrastructure in tourism.  
- Lack of insurances for patients.  
- Lack of translators to different languages particularly English and Arabic for different countries.  

For categorizing these impediments we will now present our used model in this article.

**Diamond model:**

Porter introduced a model that allows analyzing why some nations are more competitive than others, and why some industries within nations are more competitive than others. This model of determining factors of national advantages has become known as Porters Diamond. It suggests that the national home base of an organization plays an important role in shaping the extent to which it is likely to achieve advantage on global scale (Porter, 1986). Therefore, in this article we will use this model to analyze the medical tourism industry and to see in which parts this industry has shortcomings and needs improvements. At the below diagram four components of porter model are visualized.

![Conceptual model](image)

**Factor conditions:**

According to classical economy, the power of competitiveness of a region or industry is dependent to factors like land, capital, labor and things like these. This means that each country or industry with more factor conditions will have comparative advantage in comparison to other nations or industries. Some of these factors are: trained employees, infrastructure, the level of security and supportive politics (Porter, 1986).

**Related and supporting industries:**

This factor is about international competitive supplying industries and supporting industries.

One internationally successful industry may lead advantages in other related or supporting industries. Competitive supplying industries will reinforce innovation and internationalization in industries at later stages in the value system. Besides suppliers, related industries are of importance (Porter, 1986).

These national factors often provide initial advantages, which are subsequently built upon. Each country has its own particular set of factor conditions. Therefore, in each country will develop those industries for which the particular set of factor conditions is optimal (Porter, 1986).

**Demand conditions**

The condition of the home demand will be influential on the shaping the situation. They will affect the growth, innovation and development of new products. The demand condition will be determined with three characteristics: needs and wants of the consumers, rate of growth and development and the mechanism by which the internal preferential will be transported to foreign markets. Porter says a country can attain national advantage in one section or market if the demand condition shows signals of internal demands for its internal suppliers and external competitors (Porter, 1986). Competitive supplying industries will reinforce innovation and internalization in industries at later stages in the values system. Besides suppliers, related industries are of importance. These are industries that can use and coordinate particular activities in the value chain together, or that are concerned with complementary products (Porter, 1986).

**Firm strategy, structure and rivalry**

In different countries, different factors like management structure, working morale, or interactions between companies are shaped differently. This will provide advantages for particular industries. Typical corporate objectives in relation to patterns of commitment among workforce are of special importance. They are heavily influenced by structures of ownership and control. Family business based industries that are dominated by owner-managers will behave differently than publicly quoted companies. Porter argues that domestic rivalry and the search for competitive advantage within a nation can help provide organizations with bases for achieving such advantage on a more global scale (Porter, 1986).

**Methodology**

The approach that we used in this research is mixed method. Therefore, at first we collected our qualitative data with interviewing with 30 managers of hospitals and medical tourism agencies or any tourism agencies which were key player in the industry of medical tourism. The aim of these interviews was to extract the key impediments in medical tourism in Iran. At the second section of this study and with the use of extracted factors at the last level, we designed our questionnaire and distributed among the managers and key players of medical tourism. The questionnaire was composed of 36 questions which were answered with use of Likert 5 options.

**Analysis and results**

For showing the priorities of the primary variables we perform a Friedman test among them which is indicated in below table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average value</th>
<th>priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy and structure</td>
<td>3/19</td>
<td>3</td>
</tr>
<tr>
<td>Demand conditions</td>
<td>3/67</td>
<td>1</td>
</tr>
<tr>
<td>Factor conditions</td>
<td>2/15</td>
<td>4</td>
</tr>
<tr>
<td>Related and supportive</td>
<td>3/54</td>
<td>2</td>
</tr>
<tr>
<td>industries</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1: Friedman test for Primary factors**
As we can see from the table, the most important factor in the view of respondents were demand conditions and related and supportive industries are placed at the second most important impediments of medical tourism in the country. The third place goes for strategy and structure and the factor conditions is the last factor regarding the importance of factors.

Each of the four primary variables of this article have different sub-dimensions. Therefore, after analyzing the primary factors and showing the priorities, in the second step, we have to show the prioritization of the sub-dimensions of each four primary factors which is shown in table below:

### Table 2: Friedman test for sub-primary factors

<table>
<thead>
<tr>
<th>Sub-factors</th>
<th>Average value</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategy</td>
<td>7/26</td>
<td>8</td>
</tr>
<tr>
<td>Structure</td>
<td>9/42</td>
<td>1</td>
</tr>
<tr>
<td>Competition</td>
<td>6/56</td>
<td>11</td>
</tr>
<tr>
<td>Economic condition</td>
<td>7/56</td>
<td>7</td>
</tr>
<tr>
<td>Rules and principles</td>
<td>8/94</td>
<td>4</td>
</tr>
<tr>
<td>Needs and wants</td>
<td>6/53</td>
<td>12</td>
</tr>
<tr>
<td>Rate of demand</td>
<td>6/13</td>
<td>13</td>
</tr>
<tr>
<td>Human resource</td>
<td>9/34</td>
<td>2</td>
</tr>
<tr>
<td>Knowledge resource</td>
<td>9/33</td>
<td>3</td>
</tr>
<tr>
<td>Primary resource</td>
<td>6/97</td>
<td>9</td>
</tr>
<tr>
<td>Culture</td>
<td>8/28</td>
<td>5</td>
</tr>
<tr>
<td>Transportation industry</td>
<td>6/97</td>
<td>10</td>
</tr>
<tr>
<td>Hoteling industry</td>
<td>7/74</td>
<td>6</td>
</tr>
<tr>
<td>Production industry</td>
<td>3/97</td>
<td>14</td>
</tr>
</tbody>
</table>

As we can see from the table, three most important sub-factors regarding the impediments in medical tourism in Iran are structure, Human resource and Knowledge resources. In the other hand 3 least important factors regarding the impediments in medical tourism in Iran are, production industry, rate of demand and needs and wants.

After analyzing the primary factors and sub-primary factors, we have to drill down and prioritize the elements of the primary and sub-primary factors which are the questions of our questionnaire. Therefore, in the below table the results of the Friedman test for the elements of the primary factors is shown.

As it is shown in the table, the 4 most important factors in the view of the respondents were: lack of expert managers in the field of medical tourism, Lack of cooperation in macro scale, Lack of government support in presenting an agency in medical tourism and Lack of concrete programing for medical tourism.

In the other hand, the four least important factors in the view of the respondents were: lack of production industries for medical equipment, long waiting time for patients, Lack of presence of private section in medical tourism industry, Concentration on internal needs of patients.

### Conclusion and Managerial implications

In this research we investigated the most important factors involved in hindrance of development of medical tourism in our country. The approach we take to doing this research was mixed method which in the first step we interviewed with managers and involved persons in the medical tourism industry and in the
second step and with use of extracted factors at the prior step, we designed our questionnaire to measure the priority of our extracted factors.

As the results showed, the most important factors involved in hindrance of medical tourism in our country is mostly about lack of proper management and programming and coordination. These impediments are aligned with results of other studies in the literature which shows that the most important factors for developing countries are dealing mostly with lack of coordination among different involved parties and lack of government support.

This study has different implications for those involved in the industry of medical tourism. The results of this study shows that there is a lack of coordination in this industry, therefore we can firmly suggest that managers have to design and develop facilitators which are connectors of different parts involved in medical tourism industry. In most developed countries, the facilitators are private agencies which coordinate and facilitate different steps of process a foreign patient is dealing with.

Moreover, managers and marketers involved in this field can train their staff and boost their abilities in different fields (e.g. learning foreign language) which will consequently improve their profit due to importance of these factors for foreign patients and attracting them.

For future research and researchers who want to pursue their studies in medical tourism we recommend concentration in more detail impediments which our country is faced with. For example, one separate research can be performed in identification of impediments for patients who come from neighbor countries. Or impediments of patients who come for dental treatment. Finally, future researchers can follow their research in investigating ways of improvements which can be performed to improve the condition of medical tourism in our country.

References: