

## Research Article

### Identify and Rank Barriers to Tourism Development

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**Abstract:** This is a survey study and is practical and in nature is analytical descriptive. This is an analytical study because samples were used to collect data and it is descriptive because its variables are studied and reported as there are in the real world. In this study we study the barriers to tourism development and will rank the barriers for the use planners. In this study, to determine the validity the content validity was determined and to determine reliability the Cronbach's alpha method has been used. Also to check the normality of questions' answers the Kolmogorov - Smirnov test is used. The sample population has also been determined by computational methods. In conclusion, according to the results of questionnaires and fuzzy Analytical Hierarchy process method, results were presented in two parts: result analysis for ranking the barriers to the development of tourism and suggestions.

**Keywords:** Tourism, tourism barriers, tourism development

#### INTRODUCTION

Unfamiliarity with the tourism culture has led to the conflict between tradition and modernity in some areas and it has provided some circumstances in which economic and customer-orientation laws are not respected in this industry. Although Iranians have benefited their fame in hosting and welcoming culture, we cannot take advantage of our national and cultural assets regardless of economic obligations. Obviously, lack of respect to tourism does not mean a welcoming community in Iran and lack of reasonable and common expectation will face it with negative reactions which reduce the motives for travel to Iran. The views of the public to Iran tourist's shows that many people evaluate the tourism negatively and they assume that tourism can cause destruction and damage to the local cultures in the country. Another cultural barrier in attracting tourists to the country is incorrect beliefs of many foreign tourists about Iran and incorrect beliefs of some government officials about tourism, as well as aberrant beliefs of many people about tourism in the country. Strong advertisement can play an important role in informing tourists about the weather in different regions, social and cultural situation of the country and the regions in terms of food and clothing, customs and transportation. It is important that the mass media, especially radio and television play an active role in introducing social, economic and cultural realities in Iran. Another obstacle in the development of tourism in the country is the lack of the importance of tourism for many officials and planners in the country. The number of tourists who have traveled to Iran in 1976 was 680 thousand which reduced to 250 thousand people in

1991 of which only 10 to 15% can be classified among the tourists. In contrast to this descending trend, the number of Iranian nationals who have left Iran has risen steadily, so that their number of about 716 thousand people in 1977 has increased to over one million and 174 thousand people in 1991. One of the most important tools to attract tourists is to understand the motivations, preferences and interests of individuals who are willing to travel and visit other countries. According to the cultural elements, values and governing norms it is proper to have enough understanding of the interests and motivations of foreign tourists, especially in relation to Muslim and Asian tourists who religiously and culturally are closer to Iran.

According to the annual World Economic Forum in 2011 that have been published in the field of tourism and travel competitiveness index rankings, among the 16 countries in the Middle East and North Africa Iran is ranked fifteenth and only the Libya which is under crisis has been ranked after Iran. World Economic Forum in its annual report has analyzed and studied 139 countries in terms of tourism and travel-related parameters and has been released the results in a 530-page book entitled "Travel and Tourism, Competitiveness Report in 2011" and under the subheading "Beyond Recession". Robert Green Hill, Senior Business Officer at the World Economic Forum, in a preface he has written to the report, referred to the economic crisis that caused a severe downturn in the tourism industry in 2009 and has predicted that the world has passed through the downturn and is gradually improving its tourism competitiveness indicators. A part of the introduction reads: "At the moment tourism

has owned 9.2% of gross world product, 4.8 percent of total world exports and 9.2% of the total investments in the world. Green Hill continued: "According to the results of this report, the outlook for the global tourism industry despite the many complexities ahead can be evaluated cautiously optimistic." Experts of the World Economic Forum for the accurate calculation of data and information have calculated the mentioned report and rankings of more than 70 indexes. In this report they calculated factors such as laws and regulations of tourism and travel policy, environmental sustainability, safety and security, health and hygiene, prioritization of travel and tourism, business environment infrastructure, air and ground transportation infrastructure, tourism infrastructure, ICT infrastructure, tourism and travel prices, cultural and natural resources and human resources indexes in tourism, education, availability of eligible work resources, tendency to travel and tourism, the number of hotel rooms, the number of car rental large companies, open borders for tourists, people's attitudes towards foreign tourists and several others indexes. Experts of the World Economic Forum's annual report have calculated and announced ranking of all countries including Iran in terms of all the calculated parameters and compared with other countries. According to the report, among 139 countries Iran has won the 114<sup>th</sup> rank. Among the Iran neighbors, the United Arab Emirates has won the best ranking of the 30<sup>th</sup> country among 139 countries and then the Kingdom of Bahrain won the 40<sup>th</sup> rank, Qatar won the 42<sup>th</sup> rank, Israel 46, Tunisia 47 and Turkey ranked 50<sup>th</sup> rank. Also Armenia ranked 90<sup>th</sup>, Tajikistan 118 and Azerbaijan have won the 83<sup>th</sup> rank. In the general table of the report, Switzerland, Germany, France, Austria, Sweden, the United States, Britain, Spain, Canada and Singapore ranked first to tenth with their best indices. On the other side of the table, Bangladesh, Nigeria, Ivory Coast, Burkina Faso, Mali, East Timor, Lesotho, Mauritania, Burundi, Angola and Chad with their worst indices of competitiveness in travel and tourism industry, have achieved scores of 129 to 139. Iran with score of 3.37 has won the 114<sup>th</sup> rank in the mail Table of the annual World Economic Forum, while Switzerland with the best conditions in terms of the desired characteristics achieved a score of 5.68 and won the first rank and the African disadvantaged country Chad won the last rank in the table with the score of 2.56.

According to the important effect of tourism on economic, culture and so on, in this study barriers of tourism development are investigated and all their rankings are calculated.

## **LITERATURE REVIEW**

Iran in the Safavid period (16<sup>th</sup> and 17<sup>th</sup> centuries) and particularly in the era of Shah Abbas as an attractive country attracted many European tourists. Reign of "Shah Abbas" to the extinction of the Safavid dynasty can be considered the most important eras of

tourism development in Iran. The development would depend on several factors, the most important of which was the security and development of roads and residential installations. After Safavid period, due to unrest and instability Iran faced continuous chaos for years, but since the middle of the Qajar period due to a domestic gradual stability and widespread colonial phenomena and rivalries between European powers, foreigners have visited Iran and revealed many archaeological and historical secrets in Iran. Travel of the Iranians and their desire for tourism in Europe has increased since the age of constitution.

Islamic Republic of Iran with tourism attractions (historical-religious-natural) due to lack of effective policies in this sector has not been able to properly obtain its share in the world tourism market and so there still stand many economic-social problems that could be overcome by developing tourism. Therefore, it is necessary to enumerate the major challenges associated with the industry and study tourism development strategies in Iran. Development of tourism as an industry interacted with a variety of fields such as economics, agriculture, culture, environment and service, is very important and experiences in other parts of the world shows that its development in any region has led to social and economic development of that region. Thus it can be considered as one of the main tools in development of countries.

According to The World Tourism Organization (2000) more than 230 million people have visited the Asia Pacific region. If according to its capabilities great potential Iran can attract only 5% of the passengers, its income would be over 12.8 billion dollar which is about the amount of revenue from oil sales during a year. While in 1999, only about 1.008 million tourists have visited Iran. In terms of job creation, according to statistics released by The World Tourism Organization (2000), each bed (accommodation per tourist) in the world creates about 1 to 2 jobs. But figures obtained in Iran show that each bed approximately creates 4 to 5 jobs. In 1999, nearly 210 million people were employed in the tourism industry which means that one of nine employees worldwide were working in the tourism sector. In general the effect of increased employment in the tourism sector is more favorable in developing countries than in industrial countries, because in industrialized countries the possibility of further growth in this industry has been limited, but developing countries are still at the beginning. Also infrastructure facilities such as airports, roads and freeways, information and communications networks, health networks and water and sewage networks and electricity. Which are one of the basic factors in the development of tourism are developed. In addition to the economic impacts, handicrafts such as carpets, rugs, Jajim, felt, shoe (Giveh), nickel making will grow and in addition to creation of employment and income for

local people will prevent the industry from oblivion and destruction (Amirian, 2000). The following is an excerpt from studies carried out in relation to tourism and Iran touring.

Daryaee (2005) published their studies in relation to travel and tourism in the process of civilization and the Quran (Alvani and Pirozbakht, 2006) have investigated in relation to the tourism management process, Yaghoub (2009) has researched about tourism planning. Also others have studied about the mentioned subjects as follows. Alvani and Zohreh (1994), the fundamentals of tourism, Bahmani (1995), privatization problems of tourism in Iran, Dabagh (1996), Tourism Sciences, Zargham (1996) model of strategic planning of tourism in Iran, Nasserri (1996), identify barriers effective to development of tourism industry in Iran and design an explanatory model for the development and attraction of tourism, Barzekar (1998), a pattern for expanding individual insurance in the tourism industry (Tale, 2002), an experience of tourism developments in five Asian countries (Habibi, 1998), study the improvement of the tourism information system according to tourist attractions, Amirian (2000), the economic impact of tourism in Iran, Zamani (2000), tourism industry and travel services (Zende Del *et al.*, 2000), a series of comprehensive guides for Touring/Lorestan Province, (Zargham, 2000), international tourism development and policies of the Islamic Republic of Iran (Askari, 2000), organization and management of the tourism sector in Iran, Farzaneh (2001), a report on the economic impacts of tourism based on publications from the World Tourism Organization.

Bongkosh (2011), restrictions of traveling to improve tourism; this study studied the metaphysical obstacles in the tourism industry in Thailand and China. Rhodri *et al.* (2011) familiarity with small tourism companies, a perspective in the process of research and challenges; in this study the authors discussed medical tourism, related services and attractive financial advantages in this field. Waligo *et al.* (2012) implementation of sustainable tourism, involvement of stakeholder in the management framework; in this study the authors investigated the relationship between stakeholders and their participation in the governance and management of the tourism industry. Haiyan *et al.* (2012) Economics Tourism Research, annual assessment of Tourism Research; in this study the authors presented the last three decades economic research in the field of tourism and neoclassical economic help to these investigation and substitution of economic perspectives. Jeremy and Debra (2012) facilitate the development of Indigenous Australian tourism enterprises, business plans ready for indigenous tourism; the authors in this study studied the relationship between Indigenous Business in Australia in the field of tourism industry and subjected training

and education of Indigenes for development of their business. Otgaar (2012) towards a common plan for development of tourism industry; the author has studied the cooperation of public and private sectors in developing tourism industry and analyzed case studies of four European regions and discussed how to create a common vision to achieve a consensus in the tourism industry. the role of local leaders in development of rural tourism, a case study of Monmouth shire; authors of this study have discussed the Leadership and followership in the rural Tourism, the Adventa leadership and followership approach in rural businesses, Advent role in promotion the health and enhancement of communication.

Although according to the circumstances of each country or region, barriers to tourism development are different, generally the major obstacles in the implementation of tourism development consist of the institutional and structural barriers.

Social and cultural barriers including cultural differences between tourist areas and low awareness of the hosts towards the needs and demands of tourists and on the other hand, unawareness of tourists of the host's culture, while causes many problems, is a major obstacle in the development of tourism (The World Tourism Organization, 2000). Often in different places the inhabitants of a place or a community have unpleasant and negative perceptions of the tourism industry due to ignorance or because they see some behaviors from the tourists that is unfamiliar to them because there are cultural differences between hosts and tourists. Sometimes some jobs related to tourism are considered low for local people and the natives are not willing to work in these jobs. Tourism market barriers are such as income levels, fuel costs, job security, seasonal factors, travel motives and communication. Most of market factors are out of the control in tourist destinations and the ability of these sites to attract tourists in the long term requires planning and flexibility. Therefore, to develop a strategy some comprehensive research of market situation is needed. (Skaran, 2001). Educational barriers and lack of skilled manpower are due to lack of interest on the part of authorities and policy makers in this section. Unfortunately as this industry is young in developing countries, needed professional manpower is short and even there are no or limited training centers to train required manpower. Finally, infrastructure barrier is considered as another major barrier in development including lack of or poor transport vehicles for passengers, intercity roads, shopping centers, residential facilities, power, water and telecommunications, sanitation and hygiene networks in tourism areas (News Staff of Tourism Week, 1998). Thus, tourism development requires a coherent and efficient management which identifies barriers and is able to run developed strategies.

## RESEARCH METHODOLOGY

This research is a survey and in terms of objective is practical and in terms of data collection and processing is considered analytical - descriptive. In order to collect the data required to test the research hypotheses, a questionnaire containing questions related to barriers to tourism development was used. In the present study, using the Likert scale (seven-item questionnaire), the questionnaire was distributed between the initial sample (30 persons) of the statistical sample and after evaluation its defects were correct using the experts' opinions. In the next stage after checking the validity, the final Standardized questionnaire (128 cases) was distributed and collected.

**Statistical population:** The population in this study consisted of experts, academics and organizations performing tourism and Iran-touring activities. Also, a number of domestic and foreign tourists in aviation terminals were randomly selected in the total number of 184 people. The sampling method was random sampling and using Cochran formula, 124 samples have been estimated:

$$n_{Cochran} = \frac{\frac{P(1-p)Z^2(1-\alpha/2)}{d^2}}{1+1/N(\frac{P(1-p)Z^2(1-\alpha/2)}{d^2}-1)} = \frac{\frac{0.5*0.5*(1.96)^2}{(0.05)^2}}{1+1/184(\frac{0.5*0.5*(1.96)^2}{(0.05)^2}-1)} = \frac{384.16}{3.0824} \cong 124$$

Since it was anticipated that some respondents did not complete their questionnaires, 6 people were added to the sample which increased the total number of questionnaires to 130 of which 128 questionnaires were completed.

**Reliability and validity:** The validity of a study means the accuracy of indicators and benchmarks that have been made to assess the desired phenomenon. To calculate the validity of the questionnaire, content validity was used. In this study, 35 experts in charge of tourism industry and expert and experienced university professors in research subject have participated. The mean of comments of professors to the total fitness of questions in the questionnaire was  $8.73 \pm 1.02$ . The highest mean was related to Question No. 5 with  $9.29 \pm 1.57$  and the least mean was related to question No. 15 with  $7.52 \pm 2.76$ . Calculation of the validity coefficient of questions in the questionnaire showed that the questions in the questionnaire with validity coefficient of 0.920 have a high validity.

Reliability means having the characteristics of repeatability, stability and consistency in the measurement scale and examines that to what extent the measurement scale firmly and at any time measures the required concept. To test the reliability of this research, using SPSS software, the Cronbach's alpha is calculated by the below formula:

$$\alpha = (j \div (j-1)) [1 - (\sum s_j^2 / s^2)]$$

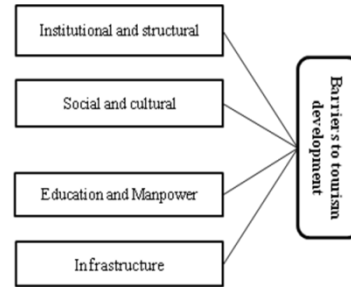


Fig. 1: Conceptual model of the research

$\alpha$  is the estimation of the test validity,  $j$  is the number of test questions,  $s_j^2$  is the variance of the  $j^{\text{th}}$  subset and  $s^2$  is the variance of the total test. This value is calculated higher than 78% for both surveys.

**Conceptual model of research:** Conceptual model is based on theoretical relationships between some of agents that have recognized important for the research question. Figure 1 shows the "conceptual model of the research".

Parameters for each of the barriers in level two respectively are:

- **Structural and institutional barriers:** Lack of a comprehensive plan for tourism development, interaction between the organization's functions, powers of Cultural Heritage, Handicrafts and Tourism Organization, lack of awareness of the benefits of tourism, stability and the economic conditions, security in tourism, delay in visa services.
- **Social and cultural barriers:** Poor marketing, poor information.
- **Training and human resource barriers:** Lack of education, lack of specialized forces.
- **Infrastructure barriers:** Transportation system, lack of enforcement agencies for tourism programs, lack of residential facilities, residential services, poor health services.
- **Other obstacles:** Decision-makers of this industry in Iran are ideology-orientation and they do not prioritize the economic and cultural benefits of the industry by the prevalent points of view in the tourism industry.

## CONDUCT OF RESEARCH

The research method is that first a paired comparison in the second level using FAHP method is calculated and then paired comparison of options for each criterion is calculated separately. In conclusion, the factors affecting the mental health of students are listed and they are ranked. To introduce the method of calculation, the following steps are generally introduced:

Table 1: Fuzzy numbers corresponding with preference in paired comparisons by FAHP

Type of the preference	Triangular fuzzy number
Absolute and complete preference or importance	(7.2, 3, 5.2)
Much stronger preference or importance	(2, 5.2, 3)
Stronger preference or importance	(3.2, 2, 5.2)
Low priority or importance	(1, 3.2, 2)
Almost equal priority or importance	(1.2, 1, 3.2)
Same priority or importance	(1, 1, 1)

Table 2: The normality test using Kolmogorov-Smimov

		A	B	C	D
N		128	128	128	128
Normal	Mean	5.939	6.012	6.604	5.856
parameters	Standard deviation	0.69578	0.75691	0.79354	0.68253
	Absolute	0.159	0.143	0.198	0.201
	Positive	0.151	0.078	0.135	0.167
	Negative	-0.159	-0.143	-0.198	-0.201
Kolmogorov-smimov		1.020	1.761	1.550	1.508
Asymp.sig. (2-tailed)		1.220	1.405	1.726	1.245

- Determination of fuzzy numbers corresponding with preference in paired comparisons between variables which are shown in Table 1.
- Determine the triangular fuzzy number for which the following actions are done.
- Determine and calculate the coefficients of each of the paired comparisons matrix which is a triangular number ( $s_k$ ).
- After the calculation of  $S_k$ , their magnitude in compare to each other shall be calculated. In general if  $M_1$  and  $M_2$  are two triangular fuzzy

numbers, magnitude of  $M_1$  to  $M_2$  is shown with  $V(M_1 \geq M_2)$  and is defined as follows:

If  $M_1 \geq M_2$ , then  $V(M_1 \geq M_2) = 1$

Otherwise,  $V(M_1 \geq M_2) = hgt(M_1 * M_2)$

Also there is,  $hgt(M_1 \cap M_2) = u_1 - l_2 \div [(u_1 - l_2) + (m_2 - m_1)]$

- Determine the magnitude (weight of index) of a triangular fuzzy number from k other triangular fuzzy number as follows:  
 $v(m_1 \geq m_2 \dots m_k) = m_i[v(m_1 \geq m_2) \dots v(m_1 \geq m_k)]$
- Calculate the index weight in the paired comparison matrix, as follows:

$$w^*(x_i) = \min \{v(s_i \geq s_k)\}, k=1 \dots n, k \neq i$$

- Determine the indicator weight vectors as follows:  
 $w^* = [w^*(c_1), w^*(c_2) \dots w^*(c_n)]^t$
- Determine the normalized weights of criteria by the following formula:

$$w_j = w^*_i \div \sum w^*_i$$

The resulting weights of relative importance coefficient of each of the indicators (measures) are based on the fuzzy AHP (using EA method) which determines the best decision making option among the decision making criteria.

**Evaluate the normalization of the data:** To use the tests and parametric methods, the research data

Table 3: Determine the degree of importance of factors

Factor	Organizational and structural	Cultural and social	Eductional and human resources	Infrastructural
Organizational and structural	1	1.5	3	2
Cultural and social	-	1	5	5
Eductional and human resources	-	-	1	1.3
Infrastructural	-	-	-	1

Table 4: Fuzzy paired comparisons matrix of the main factors

Factor	Organizational and structural	Cultural and social	Eductional and human resources	Infrastructural
Organizational and structural	(1, 1, 1)	(2.5, 1.2, 2.3)	(1, 3.2, 2)	(1.2, 1, 3.2)
Cultural and social	(3.2, 2, 5.2)	(1, 1, 1)	(3.2, 2, 5.2)	(3.2, 2, 5.2)
Eductional and human resources	(1.2, 2.3, 1)	(2.5, 1.2, 2.3)	(1, 1, 1)	(1.2, 2.3, 1)
Infrastructural	(2.3, 1, 2)	(2.5, 1.2, 2.3)	(1, 3.2, 2)	(1, 1, 1)

Table 5: The final matrix of fuzzy paired comparisons of the main factors using FAHP Method

Factor	Organizational and structural	Cultural and social	Eductional and human resources	Infrastructural
Organizational and structural	(1.2, 1, 3.2)	(2.5, 1.2, 2.3)	(1, 3.2, 2)	(1, 1, 1)
Cultural and social	(1.2, 2.3, 1)	(2.5, 1.2, 2.3)	(1, 1, 1)	(1.2, 2.3, 1)
Eductional and human resources	(3.2, 2, 5.2)	(1, 1, 1)	(3.2, 2, 5.2)	(3.2, 2, 5.2)
Infrastructural	(1, 1, 1)	(2.5, 1.2, 2.3)	(1, 3.2, 2)	(3.2, 1, 2)

(questionnaire results) should be normal. For this, Kolmogorov-Smirnov test is used to test the normality of variables. The results are shown in Table 2.

It can be seen that the level of significance (Sig) of all variables is higher than 0.05. In other words, data normality is verified and using the test is permitted. In addition, only the paired comparison of the second level criteria is calculated and to prevent repetitive calculations, the results of other criteria are not presented.

**Determine the final matrix of fuzzy paired comparisons of the main factors using FAHP method:** First the collected questionnaires are entered in the tables that determine the degree of importance of the factors. For example, the responses to the first questionnaire are shown in Table 3.

Then the numbers and matrix elements according to the equivalents in Table 4 “fuzzy numbers corresponding with preferences “, are converted to fuzzy numbers. For example, the matrix of paired comparisons of factors from the point of view of the first respondent in the fuzzy form is presented as Table 4.

For the final prioritization of options (4 items factors) in a way, the paired comparisons of all respondents should be combined. One of the best methods is using geometric averaging. In other words, for each respondent, a table such as Table 4 is calculated. The geometric mean for a and b and c and ... n elements is calculated as follows.

$$\text{Geometric mean} = (a * b * \dots * n)^{1/n}$$

Following (Table 5) presents the final compilation table of all No. 4 Tables for respondents.

**Calculation of the relative and the final weights (triangular fuzzy number):** When the matrix of fuzzy paired comparisons was prepared, their relative and the final weights should be calculated. This study used developmental analysis. For shorter calculations, only the calculation for the triangular fuzzy number of physical deprivations is offered.

- The coefficients of each of the paired comparisons matrix:

$$S1 = (2.90, 4.50, 5.17) * (0.043, 0.054, 0.072) = (0.125, 0.243, 0.372)$$

$$S2 = (2.4, 2.83, 3.67) * (0.043, .054, .072) = (0.103, 0.153, 0.264)$$

$$S3 = (5.5, 7, 8.5) * (0.043, 0.054, 0.072) = (0.215, 0.378, 0.612)$$

$$S4 = (3.07, 4, 5.67) * (0.043, .054, 0.072) = (0.132, 0.216, 0.408)$$

- Calculate the degree of largeness:

$$V(S1 \geq S2) = 1$$

$$V(S1 \geq S3) = (0.372-0.215)/(0.372-0.215)+(0.378-0.243) = 157/292 = 0.537$$

$$V(S1 \geq S4) = 1$$

$$V(S2 \geq S1) = (0.264-0.125)/(0.264 - 0.125)+(0.243 - 0.153) = 139/229 = 0.607$$

$$V(S2 \geq S3) = (0.264-0.215)/(0.264 - 0.215)+(0.378 - 0.153) = 49/274 = 0.179$$

$$V(S2 \geq S4) = (0.264-0.132)/(0.264 - 0.132)+(0.216 - 0.153) = 132/195 = 0.677$$

$$V(S3 \geq S1) = 1$$

$$V(S3 \geq S2) = 1$$

$$V(S3 \geq S4) = 1$$

$$V(S4 \geq S1) = (0.408-0.125)/(0.408-0.125)+(0.243 - 0.216) = 283/310 = 0.913$$

$$V(S4 \geq S2) = 1$$

$$V(S4 \geq S3) = (0.408 - 0.215)/(0.408-0.215)+(0.378 - 0.216) = 193/355 = 0.544$$

- Determine the magnitude (weight of indices)
  - Min  $V(S1 \geq S2, S1 \geq S3, S1 \geq S4) = \text{Min}(1, 0.537, 1) = 0.537$
  - Min  $V(S2 \geq S1, S2 \geq S3, S2 \geq S4) = \text{Min}(0.607, 0.179, 0.677) = 0.179$
  - Min  $V(S3 \geq S1, S3 \geq S2, S3 \geq S4) = \text{Min}(1, 1, 1) = 1$
  - Min  $V(S4 \geq S1, S4 \geq S2, S4 \geq S3) = \text{Min}(0.913, 1, 0.544) = 0.544$

Then the non-normalized weight vector of parameters is as follows:

$$w^* = (0.537, 0.179, 1, 0.544)$$

- Determine the weight vector:

$$w_j = w^*_i \div \sum w^*_i \Rightarrow \sum w^* = 2.26 \rightarrow W = (0.237, 0.079, 0.44, 0.24)$$

- **Determine the normalized weights of criteria:** Therefore the final weight and prioritization of four main factors are respectively presented in Table 6.

As it can be seen, the paired comparison of the second level criteria is done. The paired calculations of criteria are done using Expert Choice software. In Fig. 2, two outputs of the software are presented that show the results of Table 6.

Inconsistency index calculated rate (IR) for all values is between zero and 0.01 and this number indicates the significance of the whole model and verifies the accuracy of calculations. Inconsistency rate at this level is 0.009 which is less than 0.01 is and calculations are confirmed.

Table 6: Prioritization of main factors using the FAHP method

Indicator (criteria)	Weight	Priority
Organizational and structural	0.237	2
Cultural and social	0.079	4
Educational and human resources	0.440	1
Infrastructural	0.241	3

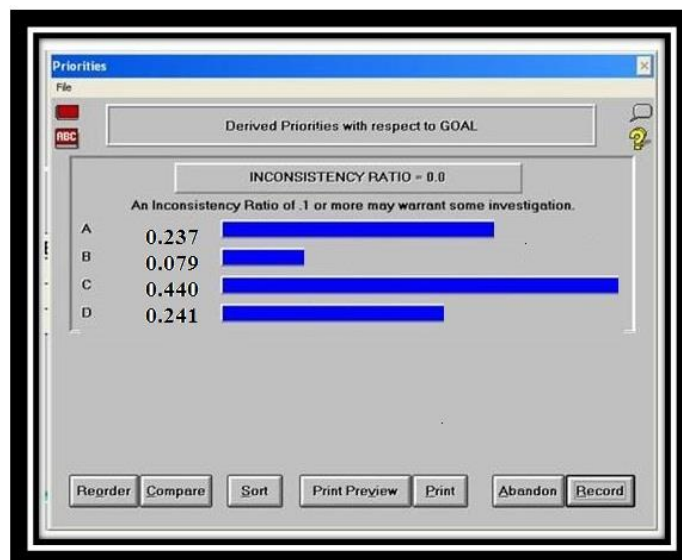


Fig. 2: The software outputs for the paired comparison of the second-level criteria

Table 7: Priority of sub-elements using the FAHP method

Group	Index (benchmark)	Weighing	Priorities
(Structural and organizational barriers)	Lack of an integrated plan for tourism development	0.24	1
	Overlapping functions between organizations	0.16	3
	Authority of cultural heritage, handicrafts and tourism organization	0.11	5
	Unawareness of the benefits of tourism	0.14	4
	Economic stability and conditions	0.18	2
	Security in tourism	0.1	6
	Delays in visa services	0.07	7
(Social and cultural barriers)	Poor marketing	0.67	1
	Poor information	0.33	2
(Barriers to education and manpower)	Lack of education	0.43	2
	Lack of specialized forces	0.57	1
(Barriers to infrastructure)	Transit system	0.14	5
	Lack of enforcement agencies for tourism programs	0.16	4
	Shortage of residential facilities	0.24	2
	Residential services	0.26	1
	Poor health services	0.20	3

Following the calculation of criteria, Table 7 presents the priority of criteria calculated by the FAHP method at the third level.

Inconsistency index calculated rate (IR) for groups (physical deprivation), (social factors), (family factors) and (pressures of modern industrial life) are respectively 0.007, 0.005, 0.008, 0.009 and therefore calculations are confirmed.

### CONCLUSION AND SUGGESTIONS

The main aim of this study was to identify and rank barriers to tourism development. The population in this study consisted of experts, academics and organizations performing activities for tourism and Iran-touring. Also, a total number to 184 domestic and foreign tourists were randomly questioned in aviation terminals. Each of the two order parameters barriers respectively include structural and organizational barriers including lack of a comprehensive plan for tourism development,

interaction between the organization's functions, powers of the Tourism and Iran Touring Organization, unawareness of the benefits of tourism, economic stability and conditions, security in tourism, delay in visa services. Cultural and social barriers include poor marketing, poor information. education and human resource barriers include lack of education, lack of specialized forces. Infrastructural barriers include transportation system, lack of enforcement organizations for tourism programs, lack of residential facilities, residential services and poor health services. The results of the study is consistent with the results of the following researches: Madhoosh and others (assessing barriers to tourism industry development in Lorestan province) Gholipour Soleimani and others (factors affecting tourists' satisfaction in Iran), Farzin and others (estimate the demand function of tourism in Iran), Nobakht and others (development of tourism in Iran, barriers and strategies), Dehdashti and others (Tourism Development Strategies in the Islamic

Republic of Iran), Mehdi Zahdeh J. (Principles and Strategies for Urban Tourism Development in Iran), Ehsani M. (A critic on marketing strategies for national tourism development plan).

**Conclusion:** Test Kolmogorov -Smirnov shows that the significant level (Sig) for all research variables is higher than 0.05. In other words, the normality of data is verified. In this study, the fuzzy analytic hierarchy method has been used for ranking. The results show that the ranking of barriers to tourism development by FAHP method respectively include: training and human resources, institutional and structural, infrastructural, social and cultural barriers. Calculating the standards at the third level (Table 7) also indicates priorities for each group. These priorities would be partially helpful and useful for planners and practitioners in tourism industry development.

#### **Suggestions:**

- In relation to the educational barriers and lack of skilled manpower, although in recent years some university courses have been designed and implemented in Iran including the associate to doctoral courses, experts are not attracted to the labor market and their ideas have not been used in the industry. It seems that with a link between human resources educated in the field of tourism and the labor market, in a form of training courses such as apprenticeships, the academic and scientific experts will be educated and this problem will be solved to a great extent. In addition, international specialized training courses for those involved in tourism can largely overcome this problem.
- In relation to structural and organizational barriers it is suggested that to avoid wasting time and money and also identify the capabilities, constraints and opportunities in the region, it is better to invite scholars and experts to localize the comprehensive plan for tourism development which has been developed in the past years, so according to the localized plan, tourism programs will be designed and implemented.
- Regarding the poor infrastructure and tourism services the most important of which is poor transportation system, studies show that one of the pillars of development in each area is roads and good communication ways and ease of access to other international transportation networks and communications network infrastructure. Hence, it is recommended that communication and information networks link to different parts of passenger transport services, also there should be some up to date and useful information bases on tourism connected to the world information network in Iran. Development of airport services and numerous international airports can also be considered as long term solutions.

- In relation to social and cultural barriers, effective and sustainable programs in the areas of culturalization in this section are suggested. To implement these programs some strategies are suggested such as the inclusion of educational programs for students, familiarization with tourism by making television documentaries, introduction of country's tourism potential through catalogs, television programs and recreation tours for students, so that by accepting the tourism culture, the culture for welcoming foreign tourists is gradually stabilizing.

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