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# Analysis and Evaluation of the Status of Tourism Target in Kerman Province by Analytical Hierarchy Process (AHP)

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#### Abstract

Tourism as a renewable and huge economical resource is an important and effective factor for development. Survey of attractions, facilities and shortage of the eight tourism target areas in Kerman province by evaluation of the most important effective criterions for their development to enhancement of the level of quality in these areas are in the field of this paper. This research is practical and its method of survey is Descriptive – Analytic. Findings show that most of numerous areas have poor position for infrastructure and haven't achieved to expected aims while most of them have many attractions and abilities for tourism attraction. Based on the results, the weight of quintet criterions include tourism attractions, suitable weather, access, facilities and historical value are 0.445, 0.262, 0.152, 0.089 and 0.052 respectively. Criterion tourist attractions have the most effectiveness on the priorities of the areas. Research findings show that among tourism areas in Kerman province, Sirch with weighted average 0.201 is the most favorite area for tourism development in Kerman province.

Keywords: Tourism, Tourism Target Areas, Analytical Hierarchy Process (AHP), Kerman Province

#### 1. Introduction

Tourism is the biggest part of world economy and its one of the largest industry in the world [6]. So that, 10 percent of gross production and 10 percent of employment in the world belong to tourism section [6], From 1950 to 2007, number of international tourists has reached to \$865 milliard [5] as it is predicted that number of tourists reaches to 1.6 milliard until 2020 [7]) and its income reaches to \$2 trillion in all of the world [6]. So, it can be said that tourism is one of the most promising industries as an alternative for the other industries. Among these countries, Iran, due variety of tourism, has high potential for development of tourism industry. By conversion tourism attractions to tourism target areas, this potential can be active, therefore, leveling of tourism areas within the district scale, regional scale and national scale are very effective for identification, the values and potential of tourism target areas. Use of different indicator for determination the level of tourism areas has been common because statistical and computerized methods are developing now. It seems determination and forming the hierarchy of tourism areas in necessary for an effective framework to tourism distribution and supply suitable service and optimal performance. In the last few decades, some theoretical studies have been done about national tourism areas with presenting strategies and introduction of main tourism centers which comprehensive plan world tourism by program and budget organization is one of them, this plan introduces main tourism centers in Iran, based on capability and infrastructure while Strategies are presented. Iran's main tourism centers are determined by different ways. These centers can be introduced base on geographical area or kind of tourist attractions [3]. Determination and evaluation of tourism area taken by cultural heritage, handicrafts and tourism organization in Iran, Some effective stops are taken to promote tourism industry by cultural heritage; handicrafts and tourism organization include leveling of tourism activities, set the centerpiece of tourism, forming specialized committees, organizing tourism target rural and determination of tourism target areas. In this study, after introducing tourism target areas in Kerman province and field survey, regarding to a set of criterions and indicators in the next development of tourism areas, using analytical hierarchy process (AHP) three areas are specified for tourism development program.

#### Now, there are two questions:

1- Which of criterions have the most effect on the tourism target areas priority?2-Which of tourism target areas in Kerman province have a high potential for tourism development?

# 1.1. Research Purposes

Purposes of this research include survey, analysis and evaluation of tourism target areas status in Kerman and province for investment and providing facilities for tourism development.

# 1.2. Research Assumptions

There is difference between amounts of effectiveness of the tourism components for prioritization of tourism target areas in Kerman province.

# 1.3. Research Method

Regarding to component of survey and topic nature, kind of research is practical and research method is (Descriptive- analytic). Necessary information has been collected by questionnaire and interviews. Statistical population includes Kerman province tourism experts and tourists that visit from numerous tourism target areas which 20 experts and 170 tourists have been selected by simple random sampling. For selection criterions, first a set of criterions identified and finally, 6 criterions selected using interview with tourism experts in Kerman province. Experts' judgment and tourist s ideas have been used in options and paired comparison of criterions within the questionnaire. Descriptive statistics and expansion statistics (correlation coefficient, path analysis) and also analytic hierarchy have been used for data analysis.

# 1.4. Research fields

Kerman province settles in southeast of central plateau of Iran within the geographical position 26, 52 to 29, 59 east longitude and 55, 25 to 32 north latitude in desert and low water areas, its area is equal to 181714 km2, this province bounded on the north by yazd and khorasan janobi provinces, on the east by Sistan and Balochestan province, on the west by Fars province and on the south by Hormoozgan province. There many continents in this province and it have mountainous areas with cold and snowy such as Baft, rain, Khabar, Sirch, Lalezar and Dehbakri and also hot areas such as Shadad and Jazmorian. Kerman province has 11 percent of Iran's areas and its population in 2011 was 2938988 and its center is Kerman.



Fig. 1: official-political divisions of Kerman province

|              |         |         | 1 · 11                               |                         | Berarou   | province |         |                                  |                 |            |            |
|--------------|---------|---------|--------------------------------------|-------------------------|-----------|----------|---------|----------------------------------|-----------------|------------|------------|
|              |         | Geogr   | aphical I                            | ocatio                  | on        |          |         |                                  |                 | _          |            |
| Name<br>Area | City    | Town    | Distance to<br>provincial<br>capital | Distance to city center | Longitude | Latitude | Climate | Type of<br>tourist<br>attraction | Antiquity       | Height (m) | Population |
| Lalezar      | bardsir | bardsir | 150                                  | 75                      | 56,50     | 29,30    | T.M     | Historical                       | 2<br>centuries  | 2680       | 2935       |
| Khabr        | Baft    | Baft    | 225                                  | 60                      | 56,19     | 28,49    | C.T     | Natural                          | 6<br>centuries  | 2100       | 3000       |
| Dalfard      | Jiroft  | Jiroft  | 240                                  | 25                      | 57,36     | 29,01    | H.T     | Natural                          | -               | 1378       | 4385       |
| Sirch        | Kerman  | shahdad | 80                                   | 25                      | 57,33     | 30,12    | T.M     | Natural                          | -               | 1700       | 4000       |
| Dehbardi     | Bam     | Bam     | 170                                  | 75                      | 57,56     | 29,05    | T.M     | Natural                          | 2<br>centuries  | 2500       | 6314       |
| Tarz         | Ravar   | Ravar   | 180                                  | 40                      | 56,30     | 31,24    | M.C.D   | Historical                       | 6<br>centuries  | 1800       | 1200       |
| Sekonj       | Kerman  | mahan   | 50                                   | 15                      | 57,26     | 30,00    | T.M     | Historical                       | 7<br>centuries  | 2300       | 1000       |
| Bidkhavan    | bardsir | Bardsir | 97                                   | 36                      | 56,31     | 29,37    | С       | Historical                       | 14<br>centuries | 2720       | 1000       |

Table 1: Specifications of tourism target areas in province

*T.M*= *Tempering mountainous C.T*= *Cold and Tempering* 

| Table 2: Attractions of tourism target areas |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Name Area                                    | Tourist Attractions  |  |  |  |  |  |  |  |  |
| Lalazar                                      | River, Garden, Surrounding Heights, takht Srdshtk, Gulzar, Shrine, Caravansary, Sudatory,  |  |  |  |  |  |  |  |  |
| Lalezai                                      | Mineral water  |  |  |  |  |  |  |  |  |
| Khohr  | Wildlife Service, Shah Velayat Valley, Valley Khabr, Harness Walnut, Wells Mount Snow,     |  |  |  |  |  |  |  |  |
| Kilabi                                       | borj shom Mountain, Diversity of plants and animals  |  |  |  |  |  |  |  |  |
| Dolford                                      | River, Aqueduct, Fountain, Waterfall, Waterfont, Glacier, anar shitan Forest, Garden, Area |  |  |  |  |  |  |  |  |
| Dallalu                                      | Bungalow, Medicinal Plants   |  |  |  |  |  |  |  |  |
| Sirch  | River, Mountain, Sarv eight years, Hot springs, Ski resort                                 |  |  |  |  |  |  |  |  |
| Dehbardi                                     | River, alam shah mountain, Waterfall, Area Bungalow, Juniper trees                         |  |  |  |  |  |  |  |  |
| Tarz   | River, Garden, Sarcheshme water mill, Sarvestan Collection, Vakili Collection              |  |  |  |  |  |  |  |  |
| Sekonj                                       | River, Waterfall, Mountain, Tomb of Sheikh Moshrif Ali Baba                                |  |  |  |  |  |  |  |  |
| Didkhavan                                    | Jade Mountain, Twenty-year-old Hickory, Garden, Green valleys, Ice Cave,                   |  |  |  |  |  |  |  |  |
| Diukilavali                                  | Historic cemetery saghork  |  |  |  |  |  |  |  |  |

# 2. Analysis of Findings

Determination of tourism target areas and leveling of them is necessary to tourism development for better servicing, social justice and economical justice within areas.

One of methods for grading these areas is survey of facilities and services include hotels and residences, access network and transportation, communication facilities, artistic cultural attractions and supply of tourist services [3]. So, analysis of tourism target status for 8 areas in Kerman province, facilities and shortages of these areas are shown in table 3.

|           | zuste et zuennes strum tourism ungee ureus in Refinan province |       |       |         |           |          |           |        |     |           |            |     |             |          |        |         |         |       |         |                              |      |          |      |                     |
|-----------|--|-------|-------|---------|-----------|----------|-----------|--------|-----|-----------|------------|-----|-------------|----------|--------|---------|---------|-------|---------|------------------------------|------|----------|------|---------------------|
| Name Area | Water  | Power | Phone | Telecom | Emergency | Pharmacy | Infirmary | Clinic | Inn | Bank      | Restaurant | Gas | gas station | Terminal | Toilet | station | Railway | Agent | The gym | Accommodati<br>on Facilities | Post | Sudatory | Road | Tourist<br>services |
| Lalezar   | *  | *     | *     | *       | *         | *        | *         |        | *   |           |            | *   | 発           |          |        |         |         |       |         |                              |      |          | *    | 発                   |
| Khabr     | 發  | 密     | 骖     | 發       | 骖         | 發        | 密         |        | 密   |           |            | 密   |             | 発        |        |         |         |       |         |                              |      | 骏        | 塔    |                     |
| Dalfard   | 發  | 密     | 骖     | 發       |           | 發        |           |        |     | <u></u> 쓙 |            |     |             | 発        |        |         |         |       |         |                              |      | 骏        | 塔    |                     |
| Sirch     | 發  | 發     | 発     |         | 発         | 發        |           |        |     |           |            |     | 쓪           |          |        |         |         |       |         |                              |      |          | 桊    | 発                   |
| Dehbardi  | *  | *     | *     | *       | *         | 発        | *         |        | *   | *         |            | *   |             |          |        |         |         |       |         |                              |      |          | 柴    | 発                   |
| Tarz      | *  | *     | *     |         |           | 発        |           |        | *   |           |            | *   |             | *        |        |         |         |       |         |                              |      |          | 柴    |                     |
| Sekonj    | 资  | 影     | 资     |         |           | 影        |           |        |     |           |            |     |             |          |        |         |         |       |         |                              |      |          | *    |                     |
| Bidkhavan | *  | *     | 资     | *       |           |          |           |        |     | *         |            |     |             |          |        |         |         |       | *       |                              |      |          | *    |                     |

Table 3: facilities within tourism target areas in Kerman province

Source: Cultural Heritage, Handicrafts and Tourism Organization of Kerman, 2010

According to table 3, these areas have a good status in some services include water, power, communication, clinic and roads and there are some problems in the fields of pharmacy, doctors office, guest-home (inn), bank, restaurant, gas, gas station, terminal, lavatory, railway station, agency, gym (sport spaces), accommodation facilities, post office, bath and tourism services. Among tourism target areas Ialehzar, Khabar and Kehkakry have the best position and worst position related to tarz, seconj and bidkhan.

# 2. 1. Tourism Criterions priority and proposed areas for tourism in Kerman province

# 2. 1. 1. Clearing importance coefficients for criterions

This research has presented suitable solution for enhancement of quality for a tourism space by identification different criterions to selection of a tourism space by tourist and determination of their weights, importance and priority using analytical hierarchy process, (AHP). In this research, proposed hierarchy structure, as diagram number1 include general aim of hierarchy in the first level, five criterion in the second level and eight options in the third level.





Pair comparison is the first step in determination of element priority for decision, this means elements comparison through pair to pair regarding to certain criterions. Matrix is preferable form for pair comparison [4]. So, first criterions were compared as a table in questionnaire by tourists; for example, one question was: which of weather or access is more important for tourism? It is asked from tourists that do this comparison quantitatively and determine priority of one criterion than other by numbers 1-9, in the next step, matrix tables developed with options or tourism places and these tables completed by labels, experts and related centers based on doctor Seati 9 grade table by comparison each of options than each of criterions. For example, it is asked them to compare lalehzar and Delphar areas based on historical value quantitatively. In all tables, based on importance of horizontal options and criterions, numbers are vertical relative to row options and criterions. Among presented scores by tourists and experts, for reaching a unit number and remove effects of small and large values, final view obtained by average calculated by hierarchy structure of parameter in the expert choice software and enter scores.

Possibility for survey of consistency between different judgment for determination of importance coefficient for criterions and sub criterions is one advantage to analytical hierarchy process (AHP). In the other words, in striation of pair comparison matrix for criterions, how much consistency is there between different judgments? So, according to this condition we can calculate decision consistency and then we judge about decision, is it good or bad? Or is it an acceptable decision? Or should it be rejected?[2] If CR  $\leq$  0.1 (consistency ratio) then there is necessary consistency in judgment's and if CR---0.1 then comparison judgment should be re viewed (modified) for more consistency and mentioned operation should be repeated [1].

In the blow of diagrams 2-7, there are coefficients for each of weighting. All of ratios for inconsistency have been calculated by expert choice software.

| criterions             | Tourist<br>Attractions | Historical value | Suitable<br>weather | Facilities | Access | The final weight of the criteria | Priority |
|------------------------|------------------------|------------------|---------------------|------------|--------|----------------------------------|----------|
| Tourist<br>Attractions | 1                      | 7                | 2                   | 5          | 3      | 0.445                            | 1        |
| Historical<br>value    | 0.143                  | 1                | 0.2                 | 0.5        | 0.34   | 0.052                            | 5        |
| Suitable<br>weather    | 0.5                    | 5                | 1                   | 3          | 2      | 0.262                            | 2        |
| Facilities             | 0.2                    | 2                | 0.34                | 1          | 0.5    | 0.089                            | 4        |
| Access                 | 0.34                   | 3                | 0.5                 | 2          | 1      | 0.152                            | 3        |
|                        | Rate A                 | Adjustment (C    | (R) = 0.0006        |            |        | $\sum = 1$                       |          |

Table 4: pair matrix for criterions of tourism relative to each other from tourists view points



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#### Fig. 2: Amounts of relative weight for tourism criterions

Amounts of final weight for each criterion show importance of that criterion in priority of effective criterion for selection a tourism area in Kerman province. Based on results from analysis of tourists questionnaire and based on table4. Criterion of tourism attraction with importance coefficient 0.445 is most important factor for selection a tourism target area in the tourists view point. After that criterion of suitable weather with weight 0.262 is in the second position. Criterion of access with weight 0.152 and criterion of facilities with weight 0.089 are in the third fifth positions respectively. Finally, criterion of historical value with weight 0.052 is the last position from tourist's point of view.

Amount of consistency ration in criterions matrix has estimated about 0.0006. This ratio in option matrix, based on criterions of tourism attractions, historical value, suitable weather (or climate), facilities and access, is also 0.05, 0.02, 0.05, 0.02, and 0.03 respectively. These numbers are less than 1 which indicates the existence of necessary consistency in judgments and correct weighing process, therefore, there is not necessary for review and reassessment

#### 2. 1. 2. Determination of importance coefficient for different areas:

This part of hierarchy process has two part: at first step, areas priority are done based on each of criterions and then position for each of areas relative to all of criterions (with importance coefficient for each criterion) are estimated and finally, preferable areas are selected.

In this section, each of areas are, have been weighted based on selected criterions (without importance coefficient of criterion's) and it's done separately.

According to table5, based on tourism attraction criterions, "Sirch" area with weight 0.312 has the highest importance and priority.

| Tourist<br>Attractions | Lalezar | Khabr | Dalfard   | Sirch   | Dehbardi   | Tarz | Sekonj | Bidkhavan | final<br>weight<br>of<br>criteria | Priority |
|------------------------|---------|-------|-----------|---------|------------|------|--------|-----------|-----------------------------------|----------|
| Lalezar                | 1       | 2     | 0.5       | 0.34    | 3          | 3    | 5      | 2         | 0.155                             | 2        |
| Khabr                  | 0.5     | 1     | 1         | 0.34    | 2          | 2    | 5      | 1         | 0.112                             | 4        |
| Dalfard                | 2       | 1     | 1         | 0.34    | 2          | 3    | 5      | 1         | 0.149                             | 3        |
| Sirch                  | 3       | 3     | 3         | 1       | 5          | 5    | 7      | 2         | .0312                             | 1        |
| Dehbardi               | 0.34    | 0.5   | 0.5       | 0.2     | 1          | 1    | 5      | 0.5       | 0.066                             | 7        |
| Tarz                   | 0.34    | 0.5   | 0.34      | 0.2     | 1          | 1    | 3      | 2         | 0.076                             | 6        |
| Sekonj                 | 0.2     | 0.2   | 0.2       | 0.143   | 0.2        | 0.34 | 1      | .02       | 0.025                             | 8        |
| Bidkhavan              | 0.5     | 1     | 1         | 0.5     | 2          | 0.5  | 5      | 1         | 0.125                             | 5        |
|                        |         | R     | ate Adjus | tment ( | CR) = 0.05 |      |        |           | $\sum = 1$                        |          |

Table 5: pair comparison matrix of options (tourism target areas) based on tourism attractions criterions

| Expert Ch                 | oice C:\U:                         | sers\30 <mark>16\Desktop\Manaz</mark> e            | ere Zibaye Tabiee.ah    |                   | _ <b>0</b> × |
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| Sort by                   | <u>N</u> ame                       | Sort by <u>P</u> riority                           | <u>U</u> nsort          | 🗖 Normalize       |              |
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| Khabar                    | .112                               |  |                         |                   |              |
| Delfard                   | .149                               |  |                         |                   |              |
| Sirach                    | .312                               |  |                         |                   |              |
| Dehbakri                  | .066                               |  |                         |                   |              |
| Taraz                     | .076                               |  |                         |                   |              |
| Sekonj                    | .025                               |  |                         |                   |              |
| Bidkhan                   | .105                               |  |                         |                   |              |
| Inconsiste                | ency = 0.05                        |  |                         |                   |              |

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with 0 missing judgments. Fig. 3: Amount of relative weight of options (tourism target areas) based on tourism attractions criterion

According to table 6, based on criterion of historical value, "Bidkhan" area with weight 0.328 has the highest importance.

| Historical<br>value | Lalezar | Khabr | Dalfard   | Sirch   | Dehbardi    | Tarz | Sekonj | Bidkhavan | final<br>weight<br>of<br>criteria | Priority |
|---------------------|---------|-------|-----------|---------|-------------|------|--------|-----------|-----------------------------------|----------|
| Lalezar             | 1       | 0.5   | 3         | 2       | 1           | 0.34 | 0.25   | 0.2       | 0.062                             | 5        |
| Khabr               | 2       | 1     | 5         | 3       | 2           | 0.5  | 0.34   | 0.25      | 0.102                             | 4        |
| Dalfard             | 0.34    | 2     | 1         | 0.5     | 0.34        | 0.2  | 0.167  | 0.143     | 0.027                             | 7        |
| Sirch               | 0.5     | 0.34  | 2         | 1       | 0.5         | 0.25 | 0.2    | 0.167     | 0.040                             | 6        |
| Dehbardi            | 1       | 0.5   | 3         | 2       | 1           | 0.34 | 0.25   | 0.2       | 0.062                             | 5        |
| Tarz                | 3       | 2     | 5         | 4       | 3           | 1    | 0.5    | 0.34      | 0.152                             | 3        |
| Sekonj              | 4       | 3     | 6         | 5       | 4           | 2    | 1      | 0.5       | 0.226                             | 2        |
| Bidkhavan           | 5       | 4     | 7         | 6       | 5           | 3    | 2      | 1         | 0.328                             | 1        |
|                     |         | R     | ate Adius | tment ( | (CR) = 0.02 |      |        |           | $\Sigma = 1$                      |          |



Fig. 4: relative weight values of options (tourism target areas) based on criterion of historical value

According to table 7, based on suitable weather criterion, "Delphar" area with weight 0.303 has the most importance coefficient and higher priority.

| Suitable<br>weather | Lalezar | Khabr | Dalfard    | Sirch    | Dehbardi   | Tarz | Sekonj | Bidkhavan | final<br>weight of<br>criteria | Priority |
|---------------------|---------|-------|------------|----------|------------|------|--------|-----------|--------------------------------|----------|
| Lalezar             | 1       | 2     | 1          | 1        | 1          | 3    | 1      | 5         | 0.160                          | 2        |
| Khabr               | 0.5     | 1     | 0.34       | 0.34     | 0.34       | 2    | 0.34   | 2         | 0.067                          | 4        |
| Dalfard             | 1       | 3     | 1          | 4        | 4          | 5    | 4      | 3         | 0.303                          | 1        |
| Sirch               | 1       | 3     | 0.25       | 1        | 1          | 2    | 1      | 3         | 0.124                          | 3        |
| Dehbardi            | 1       | 3     | 0.25       | 1        | 1          | 2    | 1      | 3         | 0.124                          | 3        |
| Tarz                | 0.34    | 0.5   | 0.2        | 0.5      | 0.5        | 1    | 0.5    | 2         | 0.056                          | 5        |
| Sekonj              | 1       | 3     | 0.25       | 1        | 1          | 2    | 1      | 3         | 0.124                          | 3        |
| Bidkhavan           | 0.2     | 0.5   | 0.34       | 0.34     | 0.34       | 0.5  | 0.34   | 1         | 0.043                          | 6        |
|                     |         | ]     | Rate Adjus | tment (C | (R) = 0.05 |      |        |           | $\Sigma = 1$                   |          |

| Table 7: | pair com | parison | matrix o | of option | s (tourism | target | areas) | based | on suitab | le weather | · criterions |
|----------|----------|---------|----------|-----------|------------|--------|--------|-------|-----------|------------|--------------|
|          |          |         |          |           |            |        |        |       |           |            |              |



with 0 missing judgments.

#### Fig. 5: relative weight values of options (tourism target areas) based on suitable weather criterion

According to table 8, "Dehbakry" area regarding to facilities criterion with weight 0.268 has higher priority and importance coefficient than other areas.

| Facilities | Lalezar | Khabr | Dalfard   | Sirch    | Dehbardi   | Tarz | Sekonj | Bidkhavan | final<br>weight<br>of<br>criteria | Priority |
|------------|---------|-------|-----------|----------|------------|------|--------|-----------|-----------------------------------|----------|
| Lalezar    | 1       | 2     | 4         | 3        | 1          | 7    | 9      | 7         | 0.268                             | 1        |
| Khabr      | 0.5     | 1     | 3         | 2        | 0.5        | 6    | 7      | 6         | 0.176                             | 2        |
| Dalfard    | 0.25    | 0.34  | 1         | 0.5      | 0.25       | 4    | 5      | 4         | 0.083                             | 4        |
| Sirch      | 0.34    | 0.5   | 2         | 1        | 0.34       | 5    | 7      | 5         | 0.122                             | 3        |
| Dehbardi   | 1       | 2     | 4         | 3        | 1          | 7    | 9      | 7         | 0.268                             | 1        |
| Tarz       | 0.143   | 0.167 | 0.25      | 0.2      | 0.143      | 1    | 2      | 1         | 0.031                             | 5        |
| Sekonj     | 0.112   | 0.143 | 0.2       | 0.143    | 0.112      | 0.5  | 1      | 0.5       | 0.021                             | 6        |
| Bidkhavan  | 0.143   | 0.167 | 0.25      | 0.2      | 0.143      | 1    | 2      | 1         | 0.031                             | 5        |
|            |         | R     | ate Adjus | stment ( | CR) = 0.02 |      |        |           | $\Sigma = 1$                      |          |

Table 8: pair comparison matrix of options (tourism target areas) based on facilities criterion

| Expert Ch                 | oice C:\     | Users\3016\Desktop\Mana                               | zere Zibaye Tabiee.ah | p                      |  |   |
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|                           |              | Priorities with r                                     | espect to:            |                        |  |   |
| >TasHi<br>Lalezar         | .268         | -25   | 29247 19703           |                        |  |   |
| Khabar                    | .176         |   |                       |                        |  |   |
| Delfard                   | .083         |   |                       |                        |  |   |
| Sirach                    | .122         |   |                       |                        |  |   |
| Dehbakri                  | .268         |   |                       |                        |  | 1 |
| Taraz                     | .031         |   |                       |                        |  |   |
| Sekonj                    | .021         |   |                       |                        |  |   |
| Bidkhan                   | .031         |   |                       |                        |  |   |
| Inconsiste                | ency = 0.0   | 12  |                       |                        |  |   |
| with 0                    | missing ju   | idgments.   |                       |                        |  |   |

#### Fig. 6: relative weight values of options (tourism target areas) based on facilities criterion

According to table 9, based on access criterion, "Dehbakry" area, with weight 0.334 has priority.

| Access    | Lalezar                    | Khabr | Dalfard | Sirch | Dehbardi | Tarz  | Sekonj | Bidkhavan | final<br>weight<br>of<br>criteria | Priority |  |  |  |
|-----------|----------------------------|-------|---------|-------|----------|-------|--------|-----------|-----------------------------------|----------|--|--|--|
| Lalezar   | 1                          | 0.25  | 0.2     | 0.334 | 0.167    | 0.5   | 1      | 2         | 0.041                             | 6        |  |  |  |
| Khabr     | 4                          | 1     | 0.5     | 2     | 0.334    | 3     | 6      | 5         | 0.157                             | 3        |  |  |  |
| Dalfard   | 5                          | 2     | 1       | 3     | 0.5      | 4     | 7      | 6         | 0.230                             | 2        |  |  |  |
| Sirch     | 3                          | 0.5   | 0.334   | 1     | 0.25     | 2     | 5      | 4         | 0.106                             | 4        |  |  |  |
| Dehbardi  | 6                          | 3     | 2       | 4     | 1        | 5     | 9      | 7         | 0.334                             | 1        |  |  |  |
| Tarz      | 2                          | 0.334 | 0.25    | 0.5   | 0.2      | 1     | 4      | 3         | 0.072                             | 5        |  |  |  |
| Sekonj    | 1                          | 0.167 | 0.143   | 0.2   | 0.112    | 0.25  | 1      | 2         | 0.032                             | 7        |  |  |  |
| Bidkhavan | 0.5                        | 0.2   | 0.167   | 0.25  | 0.143    | 0.334 | 0.5    | 1         | 0.028                             | 8        |  |  |  |
|           | Rate Adjustment (CR)= 0.03 |       |         |       |          |       |        |           |                                   |          |  |  |  |

#### Table 9: pair comparison matrix of options (tourism target areas) based on access criterion



# Fig. 5: relative weight values of options (tourism target areas) based on access criterion 2. 1. 3. Sum of final scores and selection of preferable areas

Regular and multidimensional approach is necessary for selection process of preferable area which all dimensions include criterions and their importance coefficient might be considered. At this step, follow this approach, selection of preferable area is done by sum of scores for each area, while different importance coefficient of selected criterions should be accounted for scoring process, first sum of scores of each area relative to each of criterions are listed as a matrix, then, score of each area within each criterion is multiplied in the importance coefficient for that criterion, after that, scores are summed together. Whatever score of area is higher

than the other areas, that area has more score and places at the high priority position (Badri and yari, 2010: 82). Table 10, shows final score for each area by accounting the importance coefficient in each of criterions and final grading for areas.

| Criterion<br>Area | Attractions |          |                     | Historical value |          |                     | Suitable<br>Weather |          |  | Facilities |          |                     | Access |          |           |            | fi         |
|-------------------|-------------|----------|---------------------|------------------|----------|---------------------|---------------------|----------|--|------------|----------|---------------------|--------|----------|-----------|------------|------------|
|                   | Weight      | Priority | Important<br>factor | Weight           | Priority | Important<br>factor | Weight              | Priority | Important<br>factor                                    | Weight     | Priority | Important<br>factor | Weight | Priority | Important | inal score | al ranking |
| Lalezar           | 0.15        | 2        | 0.445               | 0.06             | 5        | 0.052               | 0.16                | 2        | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.26       | 1        | 0.089               | 0.04   | 6        | 0.152     | 0.14       | 3          |
| Khabr             | 0.12        | 4        |                     | 0.10             | 4        |                     | 0.06                | 4        |  | 0.17       | 2        |                     | 0.15   | 3        |           | 0.11       | 5          |
| Dalfard           | 0.49        | 3        |                     | 0.02             | 7        |                     | 0.30                | 1        |  | 0.08       | 4        |                     | 0.23   | 2        |           | 0.19       | 2          |
| Sirch             | 0.31        | 1        |                     | 0.04             | 6        |                     | 0.12                | 3        |  | 0.12       | 3        |                     | 0.10   | 4        |           | 0.20       | 1          |
| Dehbardi          | 0.06        | 7        |                     | 0.06             | 5        |                     | 0.12                | 3        |  | 0.26       | 1        |                     | 0.33   | 1        |           | 0.14       | 4          |
| Tarz              | 0.07        | 6        |                     | 0.15             | 3        |                     | 0.05                | 5        |  | 0.03       | 5        |                     | 0.07   | 5        |           | 0.07       | 7          |
| Sekonj            | 0.02        | 8        |                     | 0.22             | 2        |                     | 0.12                | 3        |  | 0.02       | 6        |                     | 0.03   | 7        |           | 0.06       | 8          |
| Bidkhavan         | 0.10        | 5        |                     | 0.32             | 1        |                     | 0.04                | 6        |  | 0.03       | 5        |                     | 0.02   | 8        |           | 0.08       | 6          |

 Table 10: sum of final scores for selected tourism areas by accounting importance coefficient for criterions and final grading for areas

Final values for each option show importance of that option for options priority (tourism target areas in Kerman province). Based on results from analysis of expert's questionnaire and according to table 11, option of "Sirch" with importance coefficient 0.201 has been known the first proposed tourism place. Option "Delphard" with weight 0.190, option "lalehzar" with weight 0.145, option "Delphakry" with weight 0.140, option "Khabr" with weight 0.113, option "Bidkhan" with weight 0.082, option "Turz" with weight 0.070 and option "Sekonj" with weight 0.062 have priority 2-8 respectively. Based this condition, areas with more scores are selected as preferable areas for developing of tourism target areas. Doubtless, according to results and set of effective factors for selection of preferable areas, programming and investment within these areas have more efficiency and suitable than the other areas.

# 3. Conclusion and propositions

According to historical and cultural background and natural views in Kerman province, this province is an important potential for tourism in country. Tourism target areas in Kerman province are suitable and susceptible for different tourism, recreation and travelling background. Despite these potential capabilities, these areas can't be considerable tourism centers in national and international level. While these areas regarding to unique attractions such as natural views, special architecture, handicrafts and the other attractions are considered by domestic and regions tourism but along with real and permanent development, tourism management and programming in these areas are important issues. Therefore, identification of supply parts of tourism in the first step and evaluation of processes in the other steps are important for tourism development in these areas. In this research, using analytical hierarchy process (AHP) for eight tourism target areas in Kerman province, priorities of tourism development surveyed based on five criterions. Among selected criterions and based on experts viewpoint, criterion tourism attractions of areas with score 0.445 has the most effect on the priority of areas. Therefore, the first hypothesis of research has demonstrated. The other criterions include suitable weather, access; facilities and historical value with weight coefficients 0.262, 0.152, 0.089 and 0.052 have other priorities respectively.

Sirch area with tourism attraction such as rivers, mountains, 800 years old sarve tree, hot water springs with treatment properties and ski has acquired most scores (0.201) between 8 tourism areas in province, therefore, second hypothesis is also demonstrated and showed the best condition for providing tourism infrastructure and service and support facilities. "Delphard" and "lalezar" with weight coefficients 0.190 and 0.145 have two and three priorities respectively and the other areas have the next priorities which "Sekonj" area with weight 0.062 has last priority. The other tourism target areas have also many tourism attractions and these attractions are shown in table 2. So, these areas, based on final grading in table 11 should be considered by programmers for fast development.

According to improvement state of tourism target areas in Kerman province, proposed items are presented blew:

- improvement most of areas from Octamerous areas of tourism target in province that according to table 3 have some problems in the field of tourism services and facilities such as pharmacy, doctors office, quest home (inn), bank, restaurant, gas station, terminal, lavatory, railway station, agency, gym (sports spaces), accommodation

facilities, post, bath and tourism services.

- More investment in areas sirch, Delphar and Lalehzar which using AHP method and after define of criterions, have acquired the most scores between Octamerous areas, these areas need infrastructure and providing tourism services and supporting.

- Presentation and announcement of attractions and capabilities of tourism target areas province through knew Medias (television, radio, newspapers and internet site) and development different exhibitions within them for tourist's absorption.

- look for tourism capabilities within the tourists target areas in province that have special conditions for economic, social, cultural and environmental permanent development for tourism.

#### 4. **REFERENCES**

[1] AsgharPour, MH .2008. Multi Criteria Decision Making, Tehran University Press, Sixth edition, Tehran.

[2] Zebardast, E .2001., Applications AHP in urban and regional planning, Journal of Fine Arts, Number 10, Tehran University

[3] Shamaei, A and Musavand, J .2011., classification Isfahan city in terms of tourism infrastructure using TOPSIS and AHP models, Journal of Studies and Research Urban and Regional, Third year, Number 10.

[4] Ghodsi Poor, H .2008., Analytical Hierarchy Process (AHP), Amirkabir Industrial University Press, Sixth edition, Tehran

[5] Moreno, Alvaro and Amelung, Bas .2009., Climate Change and Tourist Comfort on Europes Beaches in summer: A R eassessment, Coastal Management, 37: 550-568, first published on: 01 November 2009.

[6] UNWTO, .2008., World Tourism Barometer, Volume 6, Nunber 2, Madrid: United Nations World Tourism Organization, Madrid, Spain.

[7] UNWTO, .2001., Tourism 2020 Vision-Global Forecast and Profiles of Market Segments, Madrid: United Nations World Tourism Organization, Wadrid, Spain.

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