

Studying Iran`s Tourism Industry Position in Middle-East using Tourism Development Indicators and TOPSIS Method

Akram Gheybi Hashemabadi¹ and Mohammad Javad Razmi²

Abstract

Today, tourism economy has a crucial role as one of the main principles of commercial economy in global economy. However, despite its ample tourism attractions Iran does not enjoy an acceptable place in world. Present study tries to answer to the question that regarding economic indicators of this industry what is Iran`s position compared to other middle-east countries? In addition, Iran`s position is investigated during economic development plans. To study Iran`s position, totally nine indicators are selected: indicator of total participation of tourism industry in GDP, total participation of tourism industry in jobs created, internal travel and tourism expenses, government expenses, tourist export, domestic consumption of tourist, travel, tourism and commercial expenses, holiday travel and tourism expenses and finally, investment indicator in tourism sector. TOPSIS method is used to compose said indicators. Results show that during economic development plans, Iran has gained these ratings respectively: 6th rating in 1989, 6th rating in 1996, 4th rating in 2000, 5th rating in 2005, 5th rating in 2011, and 5th rating in 2013 among middle-east countries.

JEL classification numbers: L83, O1 , O2

Keywords: tourism development, middle-east, economic development plans, TOPSIS, indicators of tourism industry development.

1 Introduction

Undoubtedly, tourism industry has a crucial position among economic growth and development factors in the world countries. Statistics show that USA, with 6 billion

¹PHD student,Department of Economics ,Ferdowsi University Of Mashhad, International Campus.

²Associate Professor,Department Of Economics ,,Ferdowsi University Of Mashhad.

dollars is accounted for the highest revenue of tourism followed by Spain and France. Tourism industry as a main and influential economic factor has been taken into consideration in recent years. So, it is tried to recognize factors of reducing tourism flow and to provide required facilities to develop tourism industry. Wide range of employment is one of the economic advantages of tourism industry. Tourism industry leads money and crowd from focus and industrial centers to rural and natural areas with tourism attraction. Considering that tourism money is flowing alike unit revenue per tourism based on degree of economic growth of countries changes hand 3 to 10 times annually tourism industry results in multiple output in the economy of host country (M. Nastaran and R. Rezaei Shahabi, 2009).

Tourism industry development of importance in developing countries challenged with problems like high unemployment, restriction on financial resources, and single-product economy. Iran`s economy is highly dependent to revenue from crude oil and its economic macro variables are faced with extreme swings due to following world oil price over time. The dominant procedure of GDP, gross investment, and per capita income during recent three decays of Iran`s economy is clearly illustrative. Accordingly, tourism industry development is very important to diversify resources of economic growth and foreign revenues as well as creating new job opportunities, since Iran is among ten top countries in terms of tourism attraction and benefits a high potential of international travel and tourism. But, regarding tourism attraction Iran is not in a suitable place in world (S. Kermani and M. Amirian, 2000).

2 Theoretical Principles

Crandall and Ritchie (1994) and Mason (2003) tourism has various effects including economic, social and environmental. Of important positive effects of tourism on host society employment, revitalization of underdeveloped or non-industrial areas, regeneracy of local art and skills and traditional cultural activities, improving social and cultural life of local society may be named (M. Ziaei and P. Torabian, 2010). Generally, tourism influences economic growth in two direct and indirect ways which are examined here in brief: A) direct effect: since tourism is one of the service industries, it is considered a part of GDP of the host country and directly affects its economic growth. Tourism industry can be an appropriate strategy to earn rich foreign currency income resulting in higher economic growth. B) indirect effect: in addition, tourism influences economic growth indirectly. With tourism boom other economic activities provide its goods and service or consume them would move along it; that is, tourism can be a driver of economic growth followed by other activities (K. Tayebi, R. Babaki and A. Jabari, 2008). Though in different areas situation is different, tourism is always considered an important factor in economic development (A. R. Ebrahimi and M. R. Khosravian, 2005). Many countries treat this dynamic industry as a main source of income, employment, and infrastructure development (C. Cooper *et al*, 2000). Because of tourist entrance demand for native goods and crafts is increased and variation is caused in economic activities and source of income for local people, and as a result area`s economy is transferred from single-dimension and restriction of income source to diversification of economic activities. Investment in tourist facilities attracts frozen capitals and locals` savings and results in its flowing in area`s economic system, employment and income in the system. Though tourism development does not directly seek employment, it undoubtedly addresses

activities and services that in turn increase employment capacity (M. R. Bemanian and H. Mahmood Nejad, 2009).

3 Literature

So far, research has not been done about rating of middle-east countries regarding tourism development indicators, but there are some studies in other areas in the field of tourism including:

- In an article titled “rating towns of Isfahan province regarding tourism infrastructure using TOPSIS and AHP” , Shamaei, Ali and Jafar Mousavand (2011) concluded that according to the criteria considered for rating towns, Isfahan, Shahin Shahr, and Kashan were respectively in ratings one to three in terms of tourism infrastructure. In addition, correlation between infrastructure variable and number of tourists was positive and correlation coefficient was more than 98 percent.
- In an article titled “economic development of tourism industry in Iran and comparison with vision of region`s countries, Feizpour, Mohammad Ali and Mehdi Emami Meibodi (2012) examined Iran`s position among vision region`s countries. Results showed that though Iran raised its rating two steps in 2010 and got to 11th place, she has a long road ahead to achieve the first place in region in 2025 in terms of development level.
- In an article titled “spatial analysis of tourism development indicators using TOPSIS (a case study: towns of Isfahan province)”, Zangi Abadi, Ali and Laleh Poureidivand, Esfandyar Heidaripour, and Mohsen Moslehi (2012) addressed assessment and prioritization of towns of Isfahan province based on tourism development indicators in four levels of over-enjoying, ultra-enjoying, middle-enjoying (intermediate), and under-enjoying (deprived) using TOPSIS. Results showed that among towns of the province, Isfahan in on the ultra-enjoying level with priority factor of 0.87 and towns of Khomeini Shahr, Khansar, Dehaghan, Tiran and Koroun, Felaverjan, Golpaigan, Chadegan and Natanz are on the level of under-enjoying or deprived.
- In an article titled “assessment of natural tourism of Kermanshah using TOPSIS”, Entezari, Mojgan and Yousef Aghaei Pour, Ahmad Gholami Rahim Abadi (2012) concluded that TOPSIS is a very powerful decision making technique to prioritize places via similarity to the ideal solution.
- In an article titled “tourism competencies using TOPSIS (a case study of Kohgilouyie and Bouyer Ahmad province)”, Tirband, Majid and Mehri Azani, Najmeh Zare (2012) leveled the province based on 9 principle indicators of tourism attraction. Results show that in most cases, this province is not in a good position in terms of development indicators considering its competencies.
- In an article titled “assessment and prioritizing tourism effects in national level using TOPSIS”, Amir Hajlou, Elham and Simin Tavalaei, Ahmad Zanganeh, Abolfazl Zanganeh (2013) assessed and prioritized negative and positive effects of tourism in social-cultural, economic, environmental and political aspects in national scale. Their results suggest that among consequences of tourism the most positive effects are associated with economic aspect followed by social one.

Table 1: Studies Indicators and Their Characteristics

Travel & Tourism Direct Contribution to GDP	GDP generated by industries that deal directly with tourists, including hotels, travel agents, airlines and other passenger transportation services.
Travel & Tourism Total Contribution to GDP	GDP generated by direct Travel & Tourism industries plus the indirect and induced contributions, including the contribution of capital investment spending.
Travel & Tourism Direct Contribution to Employment	The number of direct jobs within the Travel & Tourism industries.
Travel & Tourism Total Contribution to Employment	The number of jobs generated directly in the Travel & Tourism industry plus the indirect and induced contributions.
Visitor Exports	Spending within the country by international tourists for both business and leisure trips, including transportation spending.
Domestic Travel & Tourism Spending	Spending within a country by that country's residents for both business and leisure trips. Multi-use consumer durables are not included since they are not purchased solely for tourism purposes
Government Individual Travel & Tourism Spending	Government spending on individual non-market services for which beneficiaries can be separately identified. These social transfers are directly comparable to consumer spending and, in certain cases, may represent public provision of consumer services. For example, it includes provision of national parks and museums.
Internal Travel & Tourism Consumption	Total revenue generated within a country by industries that deal directly with tourists including visitor exports, domestic spending and government individual spending. This does not include spending abroad by residents
Leisure Travel & Tourism Spending	Spending on leisure travel within a country by residents and international visitors
Business Travel & Tourism Spending	Spending on business travel within a country by residents and international visitors
Capital Investment	Capital investment spending by all sectors directly involved in the Travel & Tourism industry.

Following introducing the eleven indicators to test tourism development level in middle-east countries, the alternative subject of the study is Iran's position in each of the said indicators compared to other middle-east countries in any of the studied years. Since the emphasis of the present study is on Iran's position compared to other middle-east countries during economic development plans and as the start of these plans is 1989,

comparing Iran`s position with other countries of region is respectively related to the first development plan 1989-1993, second development plan 1995-2000, third development plan 2000-2004, fourth development plan 2005- 2010, and finally fifth development plan 2011- 2015.

4 Research Method

Since here entropy method is used to estimate relative importance of indicators after determining decision making matrix elements, they should be quantified in order to perform other steps of TOPSIS. Due to the quantitiveness of all the indicators there is no need to perform this step in the present study. After that, to remove heterogeneity of various units of indicators, or in other word descaling indicators` measurement units and the ability to perform algebraic operations on them it is necessary to descale matrix data.

A multi-criteria decision making model consists of information that entropy can be used as a measure of its assessment. If this model includes different options (A_i) and measure (X_i) and criteria values of options, that is (x_{ij} and $j \in J = \{1, 2, \dots, n\}$ and $\{I \in I = \{1, 2, \dots, m\}\}$), in this case information content in the matrix is calculated using entropy method as follows:

First, decision matrix values are normalized using relation (1):

$$r_{ij} = \frac{x_{ij}}{\sum_{i=1}^m x_{ij}}, i = 1, 2, \dots, m$$

Then, entropy value of each element is calculated using relation (2):

$$e_j = -K \sum_{i=1}^m r_{ij} \log r_{ij}$$

Where, K is a positive fixed value and $K=1/\log m$ so the condition $0 \leq e_j \leq 1$ is met (Han Chang-Tsung-, Tien-Chin Wang, 2007).

After estimating e_j , unreliability or deviation (d_j) from the created information and weigh of J th indicator are calculated by relations (3) and (4) respectively:

$$d_j = 1 - E_j \quad \forall j \tag{3}$$

$$W_j = \frac{d_j}{\sum_{j=1}^n d_j} \quad \forall j \tag{4}$$

Now, W_j can be used as significance weigh of each criterion in decision making model.

5 TOPSIS Method

TOPSIS is based on the fact that the selected item should have the least distance with positive ideal solution and the least distance with negative ideal solution.

In this method, m items are assessed by n indicators and each problem may be considered

as a geometric system including m points in a n -dimension space.

Step 1: to obtain a decision matrix

In this method the decision matrix is assessed that includes m items and n indicators.

$$D = \begin{matrix} A_1 \\ A_2 \\ \vdots \\ A_i \\ \vdots \\ A_m \end{matrix} \begin{bmatrix} x_1 & x_2 & \dots & x_j & \dots & x_n \\ x_{11} & x_{12} & \dots & x_{1j} & \dots & x_{1n} \\ x_{21} & x_{22} & \dots & x_{2j} & \dots & x_{2n} \\ \vdots & \vdots & & \vdots & & \vdots \\ x_{i1} & x_{i2} & \dots & x_{ij} & \dots & x_{in} \\ \vdots & \vdots & & \vdots & & \vdots \\ x_{m1} & x_{m2} & \dots & x_{mj} & \dots & x_{mn} \end{bmatrix}$$

In this matrix, indicator with positive utility is the profit ind and indicator with negative utility is cost indicator (M. F. El-Santawy and A. N. Ahmed, 2012).

Step 2: to normalize decision matrix

$$r_{ij} = \frac{x_{ij}}{\sqrt{\sum_{i=1}^m x_{ij}^2}}$$

Step 3: to weigh normalized matrix

Decision matrix is in fact a parameter and it is required to be quantified. In this order a weigh is determined for each indicator by decision maker. Total of weighs (w) is multiplied in normalized matrix (R).

$$W = (w_1 \text{ } w_2 \text{ } \dots \text{ } w_j \text{ } \dots \text{ } w_n)$$

$$\sum_{j=1}^n w_j = 1$$

Regarding that WN^*1 matrix is not multipliable in normalized decision matrix (n^*n), before multiplication weigh matrix should be transform to a diagonal matrix Wn^*n (weighs on the main diagonal).

Step 4: to determine ideal solution and negative ideal solution

$$A^+ = \{u_1^+, \dots, u_n^+\} = \left\{ \left(\max_j u_{ij} \mid i \in I \right), \left(\min_j u_{ij} \mid i \in I \mid i \in I \right) \right\},$$

$$A^- = \{u_1^-, \dots, u_n^-\} = \left\{ \left(\min_j u_{ij} \mid i \in I \right), \left(\max_j u_{ij} \mid i \in I \mid i \in I \right) \right\},$$

Two artificial items created are the worst and the best solutions.

Step 5: to obtain distances

The distance between each n -dimension item is calculated using Euclidean method. That is, distance of i from positive and negative ideal solutions is obtained.

$$S_{i^+} = \sqrt{\sum_{j=1}^n (v_{ij} - v_j^*)^2}, \quad i = 1,2,3, \dots, m$$

$$S_{i^-} = \sqrt{\sum_{j=1}^n (v_{ij} - v_j^-)^2}, \quad i = 1,2,3, \dots, m$$

Step 6: to calculate relative closeness to ideal solution

This criterion is obtained from the following formula:

$$C_i = \frac{S_{i^-}}{S_{i^+} + S_{i^-}}, \quad i = 1,2, \dots, m; \quad 0 \leq C_i \leq 1$$

It is clear that lesser the distance of A_i from ideal solution is closer the relative closeness is to 1.

Last step: to rank items

Finally, items are ranked descending (T. Volarić, E. Brajković and T. Sjekavica, 2013).

6 Analysis of Research Results

First development plan (1989-1993) is considered only in paragraph 3-15 of reinforcement and development of travel and tourism in order to exchange experience and knowledge, recognition of cultural heritage and Islamic and Iranian culture, help to promote understanding and national and Islamic unity through support, encouragement, and organization of public participation, and attraction and channeling private capital in this field (act of the first five years plan of economic, social, and cultural development). Results of the study suggest that Iran has had sixth ranking among middle-east countries in 1989-first plan of economic development.

Table 2: ranking middle-east countries based on indicators of tourism development (1989)

country	(Ci)	rank	country	(Ci)	rank
TURKY	0.7467	1	Jordan	0.1054	11
Saudi Arabia	0.6382	2	Tunisia	0.1052	12
United Arab Emirates	0.377	3	Qatar	0.0846	13
Egypt	0.293	4	Bahrain	0.0775	14
Pakistan	0.2762	5	Syria	0.0713	15
Iran	0.2736	6	Libya	0.0647	16
Kuwait	0.224	7	Oman	0.0338	17
Morocco	0.1345	8	Yemen	0.0108	18
Algeria	0.1293	9	Iraq	0.0001	19
Lebanon	0.1189	10			

Reference: research results

Studies show that investment indicator has the highest weigh among other indicators. In addition to this indicator that is in a low level in Iran compared to other countries, tourism export indicator is in the same situation.

Second development plan (1995-2000) considered the subject briefly and generally in note 58 under the title of improving scientific and efficiency level of involved in cultural plans like travel and tourism, and again generally and vaguely mentioned providing facilities to private and public sector (act of the second five years plan of economic, social, and cultural development). Results of the study suggest that Iran has had forth ranking among middle-east countries, that is, it has improved relative to previous plan. In table 2, Iran`s position among other countries is presented:

Table 3: ranking middle-east countries based on indicators of tourism development (1995)

country	(Ci)	rank	country	(Ci)	rank
TURKEY	0.8061	1	Qatar	0.1225	11
United Arab Emirates	0.5579	2	Morocco	0.1282	12
Saudi Arabia	0.4834	3	Algeria	0.1266	13
Iran	0.4435	4	Tunisia	0.1137	14
Egypt	0.4158	5	Lebanon	0.0841	15
Iraq	0.4105	6	Libya	0.0714	16
Pakistan	0.2991	7	Bahrain	0.057	17
Kuwait	0.2028	8	Oman	0.0551	18
Syria	0.161	9	Yemen	0.0122	19
Jordan	0.1045	10			

Reference: research results

In studies, it was revealed that travel and tourism indicator has the highest weigh and government spending has the lowest one. Examining indicators in Iran clarifies that internal travel and tourism indicator in Iran compared to other countries has improved from 1989 to 1995, and the main reason of Iran`s improvement among these indicators is associated with improvement of these indicators.

Article 164 of the third development plan 2000-2004 is the most important article of this law about tourism in which significant facilities is considered to develop the industry. Article 164 determined that during years of implementing third plan, Central Bank of Islamic Republic of Iran will run regulations according which other banks could take action towards buying foreign currency of tourists in air, sea, and ground entries as well as hotels and tourism service offices. Furthermore, banks could sell currencies to exiting tourists if necessary documents are provided. Executive regulations of the article including required documents to use predicted facilities and other necessary laws suggested by Central Bank of Islamic Republic of Iran, Ministry of Culture and Islamic Heritage and Plan and Budget Organization were approved by the cabinet. To maintain traditional context of Jamaran and its conversion to a service cultural complex for pilgrims and internal and external tourists, Article 166 of this law in paragraph (d) assigned Tehran municipality to take necessary action, and after acquisition provide it to publication institute of Imam Khomeini (act of the second five years plan of economic, social, and cultural development).

Table 4: ranking middle-east countries based on indicators of tourism development (2000)

country	(Ci)	rank	country	(Ci)	rank
TURKEY	0.7971	1	Kuwait	0.0931	11
United Arab Emirates	0.5664	2	Qatar	0.0827	12
Saudi Arabia	0.4933	3	Jordan	0.0794	13
Iran	0.4671	4	Iraq	0.0646	14
Egypt	0.4297	5	Lebanon	0.0632	15
Pakistan	0.2819	6	Libya	0.0599	16
Morocco	0.1375	7	Bahrain	0.0551	17
Tunisia	0.1202	8	Oman	0.0506	18
Syria	0.118	9	Yemen	0.0225	19
Algeria	0.1159	10			

Results of the study show that Iran has had forth ranking among region`s countries in 2000-third economic development plan. That is, it has not changed compared to previous plan.

Studied suggest that investment indicator has the highest weigh and government spending has the lowest weigh. It is clear that indicator of travel and investment has not changed compared to other countries during 1995 to 2000.

Article 114 of forth development plan 2005-2009 obliged the government to perform following actions during forth development plan in order to recognition, maintenance, tourism, wealth creation, employment, and cultural exchanges: a) to prepare and implement plans of “owners support” of legal occupiers and beneficiaries of historical and cultural monuments and properties located in them and “organization management, monitor and support from owners of legal historical and cultural properties” to the end of forth year of forth plan, b) to develop research museum dependent on executives, c) to recognize and document historical-cultural monuments in geographical scope of the plan, by executor and monitoring and verification of Cultural Heritage and Tourism Organization of Iran, d) to develop and equip heritage facilities in most important historical sites of neighboring and region countries as a common cultural heritage, e) to attract public participation of private and cooperative sector, Cultural Heritage and Tourism Organization is allowed to take action toward license issue for private museums expert and consultancy institutes in the field of cultural heritage, moveable and immovable cultural and historical monuments restoration workshops, institutes of museum and historical-cultural landscapes management, expert institutes of historical-cultural properties, traditional art workshops and other private institutes associated with cultural heritage. Executive regulations of the article suggested by Cultural Heritage and Tourism Organization will be approved by the cabinet, f) Cultural Heritage and Tourism Organization is allowed to make rehabilitation fund using internal and external sector investment, in order to issue license of convenient usage of restorable historical buildings and places. Historical buildings and places before restoration, with the exception of exquisite properties, is not in the scope of article (115), act of basic calculations of country approved in 23/08/1987 (act of the forth five years plan of economic, social, and cultural development).

Table 5: ranking middle-east countries based on indicators of tourism development (2005)

country	(Ci)	rank	country	(Ci)	rank
TURKEY	0.7102	1	Iraq	0.1008	11
United Arab Emirates	0.586	2	Syria	0.0951	12
Egypt	0.5149	3	Tunisia	0.092	13
Saudi Arabia	0.4293	4	Kuwait	0.0783	14
Iran	0.3344	5	Jordan	0.07	15
Pakistan	0.293	6	Libya	0.0532	16
Morocco	0.1656	7	Oman	0.0483	17
Algeria	0.1597	8	Bahrain	0.0388	18
Lebanon	0.1593	9	Yemen	0.0183	19
Qatar	0.13	10			

Results of the study show that Iran has had fifth ranking among region's countries in 2006-fortheconomic development plan. That is, it has declined compared to previous plan.

Studies suggest that tourism export indicator has the highest weigh and tourist's domestic consumption has the lowest weigh. Examining Iran's indicators shows that all the indicators either has declined or had no significant changes. More importantly, a very sharp drop is observed in participation indicator of tourism industry in GDP and participation of tourism industry in employment and indicator of travel and internal tourism expenses in 2005 that has led to degradation of Iran's position in middle-east.

However, fifth development plan (2011-2015) approved by the parliament in 05/01/2010, without considering a chapter for tourism sector, only in articles 11, 12, 194, and 204 addressed tourism and its development implicitly. For example, article 11 of the law allowed Cultural Heritage, Tourism, and Crafts Organization to take following actions:

a) Legal actions in order to develop cultural and tourism centers and provide standards and easy terms of establishing private specialized centers in the field of cultural heritage such as museums, restoration of historical and cultural monuments, expert opinion about historical and cultural properties, as well as centers to monitor accommodation, reception, and travel service offices.

b) Support financially founding museums, in particular sacred defense and martyrs museums, by public non-governmental private, cooperative sectors.

c) Support financially founding centers of preserving traditional culture of rural and nomads by public non-governmental private, cooperative sectors in conformity with Islamic criteria in order to tourism development of those regions.

d) Support financially and spiritually owners of the moveable historical monuments and objects and their legal rights in order to preserve, maintenance, and appropriate use, and necessary actions to insure cultural, artistic and historical monuments.

e) identify historical cultural monuments and spiritual heritage of Iran's culture, present in neighboring and other countries of the region as a cultural heritage and support them (act of the fifth five years plan of economic, social, and cultural development).

Table 6: ranking middle-east countries based on indicators of tourism development (2011)

country	(Ci)	rank	country	(Ci)	rank
TURKEY	0.7086	1	Syria	0.103	11
United Arab Emirates	0.6857	2	Jordan	0.0805	12
Egypt	0.4201	3	Iraq	0.0802	13
Saudi Arabia	0.3395	4	Tunisia	0.0687	14
Iran	0.2748	5	Kuwait	0.06	15
Pakistan	0.2743	6	Oman	0.0411	16
Morocco	0.1745	7	Yemen	0.0309	17
Qatar	0.1637	8	Bahrain	0.0277	18
Algeria	0.1424	9	Libya	0.0239	19
Lebanon	0.1341	10			

Results of the study show that Iran has had fifth ranking among region`s countries in 2011-fifth economic development plan. That is, it has not changed compared to previous plan.

Studies suggest that investment indicator has had the highest weigh and tourism domestic consumption had the lowest weigh. Examining Iran`s indicators shows that all the indicators either has improved slightly or had no significant changes. Of course, this slight improve has not led to Iran`s position change in middle-east.

7 Conclusion

Today, tourism development in all areas, national, regional and or international, is taken into consideration of government planners and private corporations. Many countries increasingly know that initiative is needed to improve economic situation and seek to find new solutions.

For countries like Iran, oil revenues is a economic rent lacking any direct induction effects in terms of rising production level in economy, while tourism industry is mutually correlated with some of economic activities sequentially and its boom in terms of increase in incomes has a great effect on host country`s economy. Thus, tourism development pulls the economy out of single-product and is followed by economic stability due to revenues from tourism attraction.

Findings show that at the beginning of first economic development plan 1989, Iran had sixth rating among middle-east countries. In 1995, by performing second economic development plan it had forth rating among region`s countries. That is, it was improved compared to the previous plan. In 2000, it had forth rating with third economic development plan. That is, its rating was not changed. In 2005, it gained fifth rating with forth economic development plan. In other word, it was declined compared to previous plan. In 2011, it was in fifth rating with fifth economic development plan. In other word, its rating was not changed compared to previous plan. Again, Iran`s position remained the same in 2013 among middle-east countries and in studies it was clear that generally there was no significant change. Generally, it is determined that Iran`s position has not changed during economic development plans, and of course there has been no serious attention to tourism in these plans. All the provisions and projects of tourism sector were potentially, not actually, planed. Indicators associated with the sector have not changed significantly

since start of development plans of 1989. After comparing indicators in countries with higher levels of tourism, it was confirmed that tourist export indicator (foreign tourist entry) and lack of adequate funding in tourism sector are of indicators in lowest levels in Iran. Improving these indicators need a codified plan and its implementation. It is necessary to provide appropriate grounds to attract foreign tourist and investment since as it was mentioned, tourist entry has a influences GDP, employment, etc directly and indirectly and results in economic development.

References

- [1] A. R. Ebrahimi and M. R. Khosravian, " Influential factors on growth and development of tourism industry in Mazandaran Province, Proceedings Conference tourism industry role in Mazandaran development, **1**, Tehran, 2005.
- [2] A. Zangi Abadi, L. Pour Eidi Vand, E. Heidari Pour and M. Moslehi, " Spatial analysis of tourism development indicators using TOPSIS (a case study of towns of Isfahan Province)," *geography and urban development Journal*, no. 1, 2012.
- [3] C. Cooper, J.Fletcher,D.Gilbert and S. Wanhill, "Tourism Principles and Practice," London , Pitman publishing, 2000.
- [4] D.C. Frechtling, " Assessing the Impacts of Travel and Tourism –Introduction to Travel Economic Impact Estimation," Chapter 31 in J.R. Brent Ritchie and Charles R. Goeldner, editors, *Travel, Tourism and Hospitality Research: A Handbook for Managers and Researchers*, 2nd edition, John Wiley & Sons, New York, 1994.
- [5] I. Cortes and M.Pulina, " A further step into ELGH and TLGH for Spain and Italy," 2006.[http://www. feem.it/Feem/Pub/Publications/WPapers/default.htm](http://www.feem.it/Feem/Pub/Publications/WPapers/default.htm).
- [6] J. Lee, " Tourism and Development in the Third World (Routledge Introductions to Development)," Routledge, 1988.
- [7] K. Tayebi, R. Babaki and A. Jabari, " Investigating relation between tourism and economic growth (a case study of Iran, OECD countries as well as selected countries)," *Journal of knowledge and development*, No 15, 2008, pp 63-84.
- [8] L. Crandall, " The social impact of tourism on developing regions and its measurement," In J. R. B. Ritchie & C. Goeldner (Eds.), *Travel, tourism, and hospitality research: A handbook for managers and researchers*. New York: John Wiley and Sons, 1994.
- [9] M. Entezari, Y. B. Aghayi Pour and A. Gholami Rahimabadi, " Assessment of natural tourism of Kermanshah Province using TOPSIS," *Proceedings national conference of Iran`s tourism and ecotourism*, vol. 1, 2012.
- [10] M. F. El-Santawy and A. N. Ahmed, "An Information Entropy Weighting Method Combined to TOPSIS Approach for Ranking Consulting Firms", *Life Science Journal-Acta Zhengzhou University Overseas Edition*, **9**(2s), pp. 116-119, 2012.
- [11] M. Nastaran and R. Rezaei Shahabi, " Analysis of multiplier ration model in tourism industry development in Eastern Azerbaeijan Province," *IEEE Armanshahr Journal*, no. 2, 2009.
- [12] M. R. Bemanian and H. Mahmood Nejad, "Principles of planning and development of rural tourism," *Helleh/Tahan publications*,2007.
- [13] M. Tirband, M. Azani and N. Zare, " Tourism capabilities using TOPSIS (a case study of Kohgilouyieh and Bouyer Ahmad Province)," *Proceedings first national Conference geography and tourism in third millennium*, 2012.

- [14] M. Ziaei and P. Torabian, " Estimating acceptable level of negative social effects of tourism on local societies: a case study of settlements of the laggon area of Parishan)," *Journal of geography*, no. 27, 2010, pp. 205-225.
- [15] P. Mason, " Tourism: Impacts, Planning and Management". Butterworth - Heinemann. Phillips, P. C. B. and Perron, P. (1988). Testing for a Unit Root in a Time Series Regression. *Biometrika*, **75**, pp. 335-346.
- [16] Presidential assistance of strategic supervision & former management and planning organization (various years), acts of 1st, 2nd, 3rd, 4th, and 5th development plan of economic, social, and cultural development, Tehran.
- [17] R. Ranj Pour, M. H. Najafi Nasab and Z. Karimi Takanlou, " Examining theory of "tourism due in growth" in Iran during 1968-2009," *Rah-e-Andisheh economic research Journal*, 2011, pp. 115-134.
- [18] R. Heidary, "Assessment of tourism industry planning in Iran," PhD thesis, human and social science college of Tabriz University, 2004.
- [19] S. Kermani and M. Amirian, " Investigating economic effects of tourism in Islamic Republic of Iran (using input-output model)," *Journal of Commerce*, 1999.
- [20] T. Volarić, E. Brajković and T. Sjekavica, "Self-organizing distributed sensor networks," *Proceedings of the 4th European Conference of Computer Science (ECCS '13)*, paris, 2013, pp. 44-48.
- [21] World Travel Tourism council, OXFORD ECONOMICS , Methodology for producing the 2013 WTTC/Oxford Economics TRAVEL & TOURISM ECONOMIC IMPACT RESEARCH, 2013.
- [22] World Travel Tourism council, Travel and tourism economic impact Iran, 2013.