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ASSESSING ECOTOURISM POTENTIAL FOR SUSTAINABLE DEVELOPMENT OF COASTAL TOURISM IN QESHM ISLAND, IRAN.

Azam SAFARABADI
Shiraz University, Department of Social Science, Shiraz, Iran
Am_safarabadi@yahoo.com

Abstract

Ecotourism is visiting nature-based attractions, with an emphasis on learning, education, environmental protection and sustainability. Qeshm Island with its unique nature, geological and geomorphological features, and also, ecological-cultural diversity can be regarded as an influential factor in the development of the region's ecotourism. The current descriptive-analytical study applies the Pralong's method to assess the scientific, economic, cultural and aesthetic value of ecotourism attractions of Qeshm Island. Then, by identifying the attractions of the island and estimating their quantity and quality as the productivity scale, and grading each of these values, a comparison is made in terms of tourism attractions and productivity scale. The results showed that Star valleys scored 0.75 in aesthetic attractiveness, 0.55 in economic and 0.67 in tourism, Hara Marine Forests scored 0.7 in science and 0.52 in tourism, Portuguese Castle scored 0.67 in culture and 0.5 in tourism, and Gold Wells scored 0.41 in tourism.

Keywords: *Ecotourism, sustainable development, tourism proof, productivity proof, Qeshm Island.*

1. INTRODUCTION

The ecotourism industry is one of the sectors that is highly attended by tourists. Ecotourism is a concept that has evolved with the rapid growth of tourism during the past 20 years among the bodies responsible for the protection of the environment and the people living around protected areas. Ecotourism makes stability through following the philosophy of living life and based on intrinsic and inner values; through the protection of natural areas, benefiting local communities, strengthening properties of local and small cultures, providing training and learning opportunities, enhancing job creation and preventing immigration, saving non-renewable resources, providing opportunities for local partnerships, environmental education and in other words proper development and protection of the environment and cultural heritage. Its development, also, can benefit the region's residents especially the natives, through providing various job opportunities.

In 1993, the World Tourism Organization (WTO) estimated that nature-based tourism costs 7 cents for international travel per person and in sum, the global revenue from tourism was estimated to be nearly three trillion resulting in the employment of approximately 212 million persons. Given the importance of this issue, the United Nations declared 2002 as the International Year of Ecotourism (IYE) (Eagle, 1997). UNESCO announced natural features (caves, valleys, faults, waterfalls, fountains, volcanoes, etc.) and human features (features associated with geomorphological factors such as inscriptions formed on steep walls, etc.) as

the most important tourism potentials of the earth. In ecotourism**,** there are three important criteria of nature-based attractions, tourists' mutual relationship focused on learning and education, environmental management according to the principles of socio – cultural, economic and ecological sustainability (Weaver and Lawton, 2007). By the late 1970s, tourism was introduced as a golden activity with no contamination and there was a focus on its favorable outcomes, especially on the economic benefits (Choi, 2003). In the 1990s, in line with the sustainable development paradigm, traditional approaches to tourism were challenged and with the simultaneous emphasis on the desired and undesired effects of tourism, there was a movement from mass tourism toward a sustainable approach to tourism (Jurowski, U. and Williams, 1997).

2. REVIEW OF LITERATURE

Ecotourism has been defined differently by different experts and several concepts are presented. The definition provided by World Tourism Organization includes any type of travel that includes at least one night, but no more than one year, away from usual place of residence (Swarbrook, 1999).

Ecotourism is a combination of eco and tourism or ecological tourism. Though there is no exact definition for ecotourism, the following definition can be provided: it "is a form of tourism inspired primarily by the natural history of an area, including its indigenous cultures" (Ziffer, 1989, p. 6). Ziffer also points to a number of characteristics of ecotourism which include visiting undeveloped areas in the spirit of appreciation, participation, and sensitivity, practicing a non-consumptive use of wildlife and natural resources and contributing to the visited area through labor or financial means.

According to Boo (1991), "Ecotourism is a nature tourism that contributes to conservation, through generating funds for protected areas, creating employment opportunities for local communities, and offering environmental education." (p.4). Figgis (1993) considers it as traveling to distant natural areas with the aim of flourishing awareness and appreciation of the natural environment and cultural heritage; while avoiding damage or deterioration of the environment and the experience for others (Figgis, 1993, p. 8). Another good definition was provided by Boyd and Butler (1996) who considered it as " A responsible nature travel experience, that contributes to the conservation of the ecosystem while respecting the integrity of host communities and, where possible, ensuring that activities are complementary, or at least compatible, with existing re-source-based uses present at the ecosystem." (Boyd and Butler, 1996, p. 386)

Recently there has been a surge of interest in studying ecotourism and the attempts that have been made gained noticeable results. Jalani (2012) investigated the effects of ecotourism on livelihood generation and influx of people, and examined the views of the local community on the impact of ecotourism and importance of natural resource to the tourism industry in the Puerto Princesa Subterranean River National Park (PPSRNP) which has been recently renowned as one of the new seven wonders of nature. The author found that undoubtedly the tourism industry in the area has been a source of income for most of the householders and the development of the ecotourism industry in Sabang led to the change of livelihood among local people due to higher compensation offered by the tourism industry. In addition, it had caused a high influx of people because of the work opportunities.

Ólafsdóttir and Dowling (2013) in their investigative attempt emphasized the importance of sustainable management in geotourism development. The authors aimed to assess the compatibility of geoconservation and rural development within geotourism by exploring the challenges and potential outcomes of the geotourism development in Iceland; by identifying and analyzing the various potential outcomes of geopark development; and by proposing a

strategic planning approach for sustainable geotourism planning and management in vulnerable environments. The results of their study pointed to nine distinctive sites for geopark development, each of which presented the major challenge of using geological heritage as a basis for informing the area's 'ABC' components such that both visitors and locals are given a holistic appreciation of the area based on an understanding of its geology.

Chiu, Lee and Chen (2014) studied the environmentally responsible behavior of tourists engaged in ecotourism and they investigated whether its level can change as a result of the eco-travel experience. In their article, Chiu et al. proposed a behavioral model in which perceived value, satisfaction and activity involvement with respect to the eco-travel experience shape the tourist's environmentally responsible behavior. The results of analyzing 328 questionnaires showed that perceived value, satisfaction, and activity involvement could promote environmentally responsible behavior of tourists. The authors concluded that enhancing tourist's value perception about the eco-travel activity was a priority in a sequence of steps that would strengthen environmentally responsible behavior via increasing the ecotourism's activity involvement and satisfaction levels.

Tran and Walter (2014) in a quite recent research about ecotourism, gender and development in northern Vietnam investigated women's participation in a community-based ecotourism project. Applying Longwe's empowerment framework, the authors found a more equitable division of labor, increased income, self-confidence and community involvement, and new leadership roles for women. Nevertheless, they found inequities of social class, childcare, and violence against women. Ahmad (2014) in another study in Brunei Darussalam in Southeast Asia attempted to identify the prospect as well as challenges of sustainable tourism from the perspective of the business organizations or enterprises in the tourism industry, based on data that were collected from a survey conducted among travel, transport, hospitality and visitor attraction sectors in the country.

2.1. Methodology

In this study, the required data were gathered through questionnaire and field study and applying Pralong's method, ecotourism potentials of the island were evaluated. Then, identifying the attractions of the island in terms of attractiveness as a tourism scale (scientific, aesthetic, economic and cultural attractiveness) and productivity scale (estimates of quantity and quality of attractions) and scoring each of these values, a comparison was made in terms of tourism attractions and productivity scale and consequently the level of the use of potentialities in terms of space and time were determined.

2.2. Discussion

2.2.1. The studied area

Qeshm Island is situated in the south of Iran and considering its strategically important location (wide view toward South, North and East, view toward Strait of Hormuz and being close to Bandar Abbas) and considering trade and industrial free area of Qeshm, this region has been very important. The distance between Qeshm Island and Bandar Abbas is 20 km, Bandar Hormuz 18 km, Larak Island 9 km, Abu Misa Island 163 km and greater Tunb Island is 114 km.

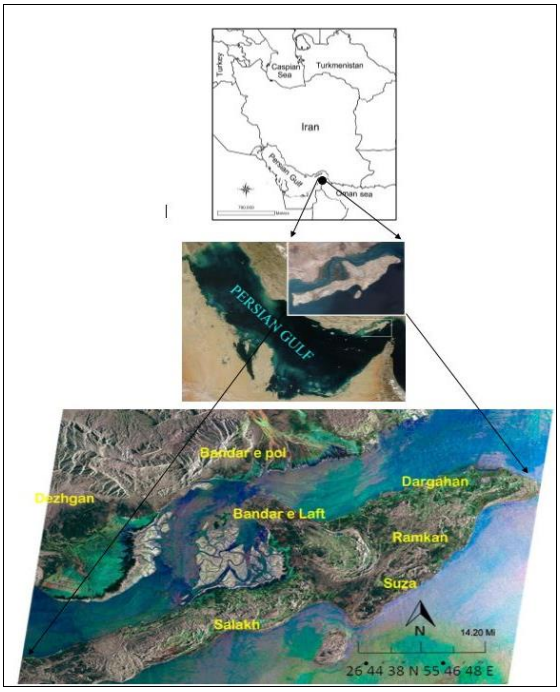

Figure 1. Geographical situation of Qeshm island

3. FINDINGS

3.1. Introducing ecotourism attractions of the area

Stars Valley

Stars Valley is a geomorphological perspective which is situated at the distance of 5 kilometers from the southern coast of the island and is formed by surface water erosion, seasonal showers, and storms. Northern part of the valley is more or less intact and is situated at a height between 7 to 15 meters from the valley base and it is made of sandstone and loose lime cement and filled with fossil shells. Sharp cones, eroded pillars and columns, arcs and blades and strip walls, are the segments that are observed in the valley (Figure 2).

Figure 2. Stars Valley by Fatemeh Nematollahi

Mangroves forests

Mangroves forests are natural and unique ecosystems which grow at the interface of land and sea in tropical and subtropical regions of the world (Kathiresan and Bingham, 2001). They are distributed in 112 countries and have many benefits. Among the direct benefits of these forests, one can refer to forestry products (firewood, charcoal, timber, honey *etc*.) and fishery products (fish, prawn, crab, mollusk *etc*.). Also among the indirect products (ecological functions) of these forests, we can refer to (stabilization of heavy metals, controlling erosion, absorbing carbon dioxide and producing oxygen, facilitating the transport of water and providing habitat for fish and shrimp). Mangroves forests appeared scattered on the southern coast of Iran, from the Strait of Hormuz toward the East and the Indian Ocean, off the coast of Oman. These forests are more seen on the Persian Gulf coast, near Bandar Loft, north of Qeshm Island, Bandar Khamir and in dense centers and it consists of a tape with the width of 50 to 500 km, with a range of 150 km and an area of about 8236 hectares (Figure 3). Currently, these ecosystems are strongly influenced by human activities and are threatened (Pons and Fiselier, 1991; Fouda and AL. Muharrami, 1995; Farnsworth and Ellison, 1997**).** Experience has shown that the best tourism activity in mangrove forests is recreational boating with a low speed and no wave creation (Majnoonian and Mirabzadeh, 2002) and other recreation activities can cause damage to this fragile ecosystem.

Figure 3. Mangroves forests by Fatemeh Nematollahi.

Portuguese castle

The Portuguese castle is situated on the northern side of the island and at the coast of the Persian Gulf. The castle was built on the island in 1507 AD, with the order of Portuguese navigator "Alfonso Albuquerque". Albuquerque seized the islands situated at the mouth of

the Persian Gulf and accordingly could dominate maritime trade routes between India and Europe. Therefore, Portuguese dominance over this major waterway lasted 110 years. At this time they began to build castles and stabilizers, among which are the fortresses of Hormuz, Qeshm and Larak. Qeshm Castle, with an area of over two thousand square meters, is made of limestone and gypsum with a local concrete mortar and has been restored several times over a century. The castle is rectangular. There are four towers at the four corners and long arms with the catapults which are based on its width. The castle was used to store ammunition and weapons.

Figure 4. Portuguese Castle

Gold wells

Wells drilled in Bandar Loft in Stone Mountain and in a deep place which act as artesian wells. Their water was supplied from rain and overflow of upstream rock and hills and so they were first called "Tal Av" ("tal" means "mound" in Persian) and later were known as talla wells ("Talla" means gold). The number of wells is over 50 to 60 rings which are generally filled with water, unless mud is accumulated which necessarily requires removal.

Figure 5. Gold wells.

3.2. Analysis of Results

3.2.1. Evaluation of Tourism Scale

Evaluation of tourism scale is carried out by four criteria: Aesthetic value, scientific value, cultural and economic values of the place, which is expressed in the following equation:

Tourism Scale = (Aesthetic value + scientific value + cultural value + economic value)/4
In the above equation, the weight of none of tourism scale criteria is more or less than any of the other criteria, as there is no special reason for increasing or decreasing the importance of any criterion in comparison to other criteria (Mokhtari, 2010).

Evaluation of apparent aesthetic value

The apparent aesthetic value depends on inherent and spectacular aspects of an ecotourism place (Table 1). In estimating aesthetic value, there is no special weighting method; as there is no acceptable reason that a particular criterion is less important than the other criteria. This criterion is calculated by the following equation:
Apparent aesthetic value = (Score of clause 1 + Score of clause 2 + Score of clause 3 + Score of clause 4) / 4

Table 1. Criteria and scores for evaluating apparent aesthetic

Criteria / Scores	0	0.25	0.5	0.75	1
1- Number of landmarks	-	1	2 or 3	4, 5 or 6	More than 6
The number of near places. The distance of each of these places from ecotourism location should be less than 1 km.					
2- the average distance from the sight (in meter)	-	Less than 50	50-200	200-500	Over 500
The shortest distance between each of the sights and ecotourism location divided by the number of sights mentioned in clause 1.					
3- Area	-	Small	Average	Large	Extremely large
The whole area of ecotourism location is considered. For each location (glacier, cave, etc.), a small-scale measure (in kilometer) of area compared to all locations in the studied area is determined.					
4- Height	Zero	Low	Average	High	Extremely high
The height of the whole place is considered. For each location (glacier, cave, etc.), a small-scale measure (in meter) of the height compared to all locations in the studied area is determined.					

Evaluation of Scientific value

Scientific value is assessed by some factors such as natural scarcity, the charm of ancient geography, location status in terms of conservation level and ecological value of an ecotourism place (Table 2). Weighting is decreased in this section.
Scientific value = (Score of clause 1 + (Score of clause 2 * 0.5) + Score of clause 3 + Score of clause 4) / 3.5

Table 2. Criteria and scores for evaluating scientific value of an ecotourism place

Criteria / Scores	0	0.25	0.5	0.75	1
1- The attractiveness of ancient geography	Zero	Low	Average	High	Extremely high
This criterion is determined based on the attraction of ecotourism location in the view of ancient geography. So that this location is an evidence of the evolution of morphoclimatic regeneration in the studied area. Historical study of the location is a greater charm.					
2- Rarity	More than 7	5-7	3-4	1-2	unique
The number of significant locations in the study area. For instance, a unique location may be regarded as a different sample of a morphoclimatic area of the past.					
3- Location status	destroyed	Completely destroyed	Moderately destroyed	Weakly destroyed	Not destroyed
The score of this clause is calculated based on the natural and human hazards. Factors such as human and natural changes and changes in levels of protection of ecotourism sites are considered in the calculation of this					

clause.					
4- Ecological attractions	Zero	Low	Average	High	Extremely high
The score of this clause is calculated based on factors such as attractiveness due to their rarity, diversity of species, natural dynamic processes (the ability of nature in area development), and special and unique plant and animal species in an ecotourism location.					

Evaluation of Cultural Value

Cultural value is assessed by some factors as occurrence of artistic and cultural events related to an ecotourism site (Table 3).
Cultural Value = (Score of clause 1 + Score of clause 2 + Score of clause 3 + Score of clause 4) / 4

Table 3. Criteria and scores for evaluating cultural value of an ecotourism place

Criteria / Scores	0	0.25	0.5	0.75	1
1- Historical and cultural correlation	No relation	Weak relation	Average correlation	Strong relation	Highly strong relation
Fixation rate and historical and symbolic significance of the location for society. The measure is calculated by historical and cultural aspects of ecotourism sites, regardless of the physical works and buildings.					
2- Historical evidence	Lack of evidence	Weak evidence	Average evidence	Strong evidence	Highly strong evidence
The existence of monuments and archaeological remains of historic buildings in ecotourism locations. The quality of these monuments positively affects the score obtained.					
3- religious and spiritual evidence	Zero	Weak evidence	Average evidence	Strong evidence	Highly strong evidence
The existence of religious and spiritual evidence related to the ecotourism location. This criterion also applies to public opinion.					
4- Cultural- art events	Never	-	Sometimes	-	At least once a year
In this section, the cultural-art events are considered. This event may occur in the same place or elsewhere in the study area. Short term events are awarded medium rating.					

Evaluating Economic Value

Economic value is assessed by such factors as applicability and exploitability of the ecotourism location in tourism field (Table 4).
Economic Value = (Score of clause 1 + Score of clause 2 + Score of clause 3 + Score of clause 4 + Score of clause 5) / 5

Table 4. Criteria and scores for evaluating economic value of an ecotourism place.

Criteria / Scores	0	0.25	0.5	0.75	1
1-Accessibility	More than 1 km	Less than 1 km	Through local road	Through regional road	Through national road
The accessibility rate depends on the distance of ecotourism locations from the main routes of communication and transportation. If the access is via cable car or the train, the scale should be adjusted accordingly.					
2-Natural hazards	Uncontrollable	Uncontrolled	Incomplete Control	Optional control	No Risk
This calculation depends on the level of the risk threatening ecotourism sites and management policies applied (increasing awareness, security infrastructure, etc). In this section, the dangers of human performance are not directly considered.					
3-The number of	Less than	10000-100000	100000-	500000-	More than

annual visitors to the region	10000		500000	1000000	1000000
The calculation of this part depends on the potentiality of an ecotourism site to attract visitors considering the annual number of visitors of the sights of the region. Points taken are the same for the same places in the area.					
4-Level of protection schemes	Complete	Limited	-	Unlimited	Lack of protection
This section is calculated based on the conservation level of ecotourism sites. The economic efficiency is conversely related to reducing the level of protection.					
5- Level of tourist attraction	-	Local	Regional	National	International
This section is related to clause 4, as the lack of protection might create economic and tourist losses for location productivity in relation to attracting tourists from different areas.					

3.2.2. Evaluation of the productivity scale

The method applied for tourism scale, i.e. the way that criteria and scoring measures were determined, will be used for the productivity scale. Productivity scale consists of two major parts: the productivity quantity which is shown by X index, and the productivity quality which is shown by Y index. The relationship between these two scales, i.e. productivity quantity and quality, will determine the productivity degree (low, average, high) in geomorphological places. The productivity quantity represents the extent of spatial and temporal application of a geomorphosite (Table 5). While productivity quality is assessed by the four parts which formed tourism scale (Table 6). Assessing productivity quantity and quality of ecotourism locations will ultimately determine the application level of the potentialities of the place in terms of space and time (Pralong, 2005). In this section, again, there is no special weighting method; as there is no acceptable reason that a particular criterion is less important than the other criteria. Thus various criteria with special scoring measure will be applied to the major components of productivity scale.

Productivity Quality = (Score of clause 1 + Score of clause 2 + Score of clause 3 + Score of clause 4) / 4

Productivity Quantity: (Score of clause 1 + Score of clause 2) / 2

Productivity Scale: (Productivity Quality+ Productivity Quantity)/2

Table 5. Criteria and scores for evaluating productivity quantity.

Criteria / Scores	0	0.25	0.5	0.75	1
1-The area used in Hectare	Zero	Less than 1	1-5	5-10	More than 10
The score of this section is calculated based on area used for economic and tourist efficiency. The area may include the total site area or a part of the space.					
2-Number of infrastructure	Zero	1	2-5	6-10	More than 10
To assess this point, the entire information, accommodation, souvenirs and transportation infrastructure are considered in the whole area used by ecotourism sites. Pedestrian paths are not considered in this section.					

Table 6. Criteria and scores for evaluating productivity quality.

Criteria / Scores	0	0.25	0.5	0.75	1
1-Use of aesthetic aspect	With no advertisement	A protective action and introducing a product	A protective action and introducing multiple products	Multiple protective actions and introducing a product	Multiple protective actions and introducing multiple products
Applying aesthetic attractiveness of the ecotourism location is assessed by training facilities or multiple training and supportive actions (Exhibitions, guide tours, educational notices) and the introduction of products available in that location.					

2-Use of scientific aspect	With no training facilities	A protective action and introducing a product	A protective action and introducing multiple products	Multiple protective actions and introducing a product	Multiple protective actions and introducing multiple products
Applying scientific attractiveness of the ecotourism location is assessed by training facilities or multiple training and supportive actions (Exhibitions, guide tours, educational notices) and the introduction of products available in that location.					
3-Use of cultural aspect	With no training facilities	A protective action and introducing a product	A protective action and introducing multiple products	Multiple protective actions and introducing a product	Multiple protective actions and introducing multiple products
Applying cultural attractiveness of the ecotourism location is assessed by training facilities or multiple training and supportive actions (Exhibitions, guide tours, educational notices) and the introduction of products available in that location.					
4-Use of economic aspect	No visitor	Less than 5000	5000-20000	20000-100000	More than 100000
Use of the economic potential of the place, which is calculated by the number of annual visitors. Obtained scores do not indicate the profitability of the place.					

4. RESULTS

This study applied the Pralong's method to make a comparison between tourism attractions and productivity scale of ecotourism attractions of Qeshm Island and to classify them based on ecotourism value (Table 7). The scores obtained from evaluating tourism scale and productivity scale made such comparison possible. Through such comparison, certain potentialities of each area will be recognized and planning priorities will be adjusted accordingly.

The comparison achieved from tourism scale showed that Stars Valley is the most visited site of the island and scored 0.61. Hara Marine Forests with the score of 0.52 and Gold wells with the score of 0.41 got the second and third rank in tourism scale respectively. In addition, investigating the components of tourism scale shows that in terms of aesthetic value attractiveness, Stars valley got the highest rank with the score of 0.75, Hara Marine Forests scored the highest in science which was 0.7, Portuguese Castle scored 0.67 in culture and Star valleys scored 0.55 in economic (Table 6). A considerable point is the relationship between aesthetic scale and economic scale of the region. Despite the high attractiveness of these places to attract tourists, they show low economic scale which refers to the fact that despite the existence of a novel and unique perspectives on the island, there are no organized plans by authorities in order to attract tourists with economic objectives (Table 7). Evaluating quantity and quality of productivity of ecotourism locations can ultimately determine the extent of applying the potentialities of the island in terms of time and space. As can be seen in Table 7, there is no acceptable coordination between tourism scale and productivity scale and despite the high tourism potentialities of the island, the productivity ratio is very low and insignificant. Stars valley got the highest rank in productivity scale compared to other attractiveness (Table 7) and (Figure 6-8).

Table 7. Results of evaluating tourism and productivity scale of ecotourism attractions of Qeshm Island

Ecotourism attractions / Scale	Stars valley	Portuguese castle	Mangrove forests	Gold wells
Aesthetic value	0.75	0.45	0.4	0.38
Scientific value	0.69	0.55	0.75	0.3

Cultural value	0.45	0.67	0.5	0.59
Economic value	0.55	0.35	0.45	0.3
Tourism value	0.61	0.5	0.52	0.41
Productivity Quality	0.21	0.1	0.15	0.05
Productivity Quantity	0.11	0.04	0.08	0.0
Productivity Scale	Low0.16	Low 0.07	Low 0.11	Low 0.02

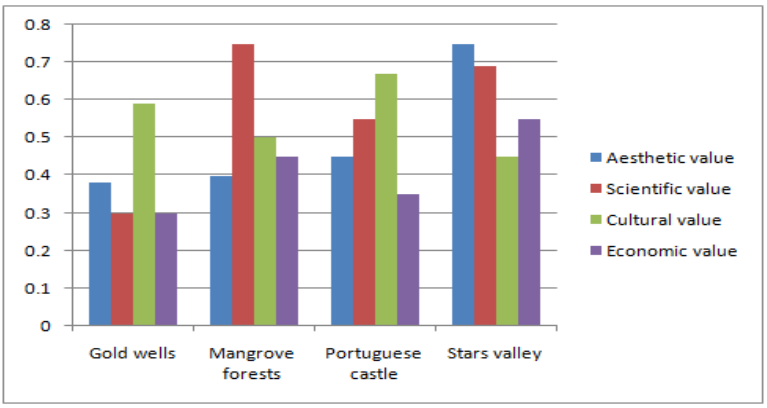

Figure 6. The comparative chart of studied scales in ecotourism areas of Qeshm.

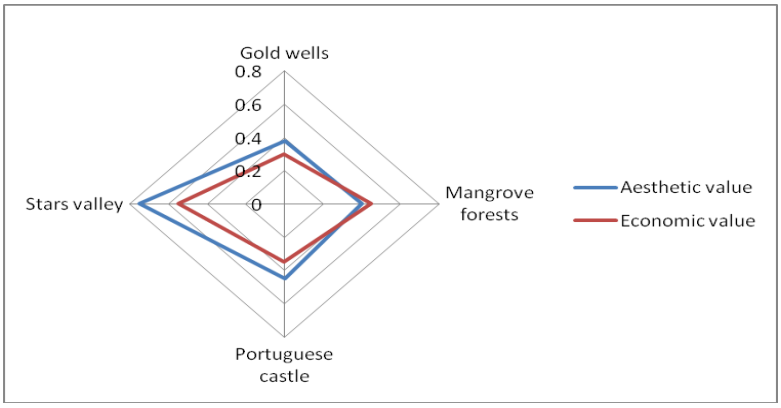

Figure 7. The comparative chart of attractiveness scale and economic scale in ecotourism areas of Qeshm.

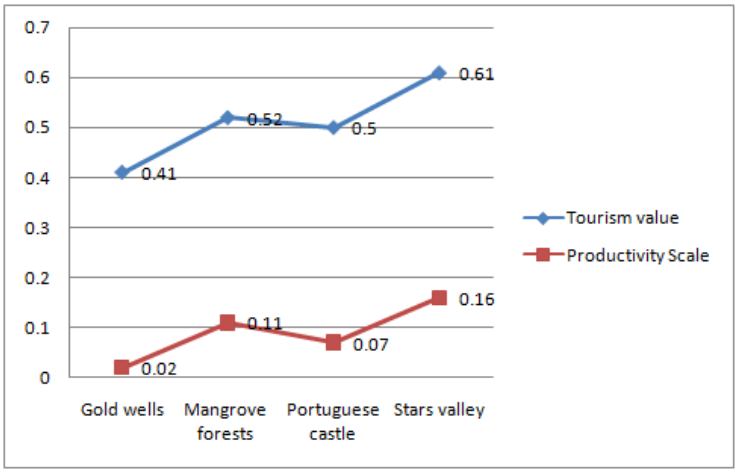

Figure 8. The comparative chart of tourism scale and productivity scale in ecotourism areas of Qeshm.

5. CONCLUSION

Currently exploiting natural and ecological potentialities in the form of ecotourism play a significant role in the development of ecotourism industry in every country. In the current

attempt, by discussing only an excerpt of natural and tourist attractions of Qeshm Island, we showed only a part of its potentialities in developing ecotourism of the island. Ecotourism perspectives of the island have such geological and geomorphologic features that can be investigated in the form of ecotourism locations and identify such attractions can give a new perspective towards the economic prosperity of these areas. The results of the studied area showed that the highest scores go for Star valleys which scored 0.75 in aesthetic value attractiveness, Hara Marine Forests which scored 0.7 in science, Portuguese Castle which scored 0.67 in culture, Star valleys which scored 0.55 in economic and in terms of ranks in tourism scale, Star valleys scored 0.61, Hara Marine Forests scored 0.52, Portuguese Castle scored 0.5 and Gold Wells scored 0.41. However, despite the high points of the tourism scale of island's ecotourism attractions, there were no satisfactory results in productivity scale of the region which was assessed by the quantity and quality of productivity. In the way that Stars valley with the score of 0.16, Hara Marine Forests with the score of 0.11, Portuguese Castle with the score of 0.07 and Gold Wells with the score of 0.02 do not have the appropriate condition. This situation emphasizes the need to plan and invest in this sector (especially the private sector). It is necessary to pay attention to the great ecotourism potentialities, diversity of flora, fauna, diversity of geological and geomorphological landscapes, and other ecological features of Qeshm Island through proper management practices. Considering these features, by increasing local community awareness regarding environmental activities and establishing an appropriate management framework, these resources can be used in line with the sustainable development of ecotourism industry.

To achieve sustainable development of ecotourism in Qeshm Island, the following suggestions can be given:

- Designing a space compatible with the environment with predetermined goals in places with tourism purpose to attract more tourists.
- Lighting and designing ecotourism space compatible with tourists' tastes using modern methods.
- Applying guide boards in ecotourism locations in at least a few languages.
- Using furniture compatible with the space to increase the natural beauty of the region.
- Preparing catalogues to introduce region's attractions to the people considering the region's potentialities in different tourism and ecotourism sectors.
- Holding scientific, cultural and sports meetings and seminars in the island for better absorption of tourists.
- Increasing managerial capacity and planning for sustainability in tourism and ecotourism of the island and reducing the damage caused by the increase of tourists in the area.

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