



Categorization of North Khorasan Villages in Terms of Indicators of Entrepreneurial Ecotourism Developments (Case Study: Bojnord - Golestan Road)

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Abstract

Purpose- Development of rural areas is one of the challenges of Iran. This has led experts to provide strategic solutions for the development of ecotourism and entrepreneurship, addressing the economic, social and environmental challenges of rural areas. Therefore, the present study aims to categorize 9 selected villages in North Khorasan Province located along Bojnord-Golestan Road in terms of indicators of entrepreneurial ecotourism.

Design/methodology/approach- To explore the subject and its results, we recruited descriptive-analytical methods in the form of library research and field studies. For analyzing and collecting data from the literature, entrepreneurial ecotourism indices were classified in four groups of agricultural and livestock potentials, invaluable natural and historical heritage, cultural and social attitudes, and construction and residential infrastructure. The process of categorizing the capabilities, environmental potentials and ecotourism strengths of the 9 villages with respect to these four indicators was performed by SPSS & R software using Fuzzy Hierarchy Process Analysis (FAHP) model.

Findings- Based on the ecotourism indices and the rank of villages specified by the FAHP method, two villages of Dasht and Darkash with average scores of 4.37 and 3.87 had the highest ecotourism ranks and two villages of Shirabad and Keshanak with mean scores of 2.00 and 0.94 had the lowest ranks, respectively. On the other hand, examining the status of indicators of ecotourism development suggested that cultural and social attitude index with a mean of 2.4 had the highest rank and the index of construction and residential infrastructure with a mean of 2.94 had the lowest rank among 9 villages under study.

Practical implications- Strategic planning for the development of ecotourism in North Khorasan was conducted based on the categorization of villages selected in this research.

Originality/value: Categorization of villages is of paramount importance in the entrepreneurial ecotourism development as it simultaneously focuses on economic, social and natural potentials in rural areas and helps allocate limited financial resources appropriately.

Key words: Entrepreneurial ecotourism, Rural development, Fuzzy hierarchy process analysis, Northern Khorasan.

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1. Introduction

Rural tourism is a valuable source of employment and revenues and can be utilized as an important tool for the socio-economic development of rural communities. In many countries, it is associated with agricultural policies and is often treated as a means of protecting the rural environment and culture, playing an essential role in the development and preservation of rural areas (Tabriz, 2013). Additionally, ecotourism is a novel concept in tourism, which was initially propounded by the idea of reconciling with the real nature and was later defined by the International Tourism Community as “a responsible travel to natural areas that conserves the environment and improves the well-being of local people”. (Thampi, 2005). Tourism creates local development opportunities and leads to the preservation of the natural environment (Githinji Mwangi, 2006). Therefore, in recent years, considerable attention has been paid to ecotourism in comparison with other types of tourism, and it has experienced a growth rate three times higher than the whole tourism industry (O'Connor, 2008). Therefore, if ecotourism opportunities are properly planned and managed through an entrepreneurial approach, they provide a fertile ground for sustainable economic productivity without damaging environment while strengthening the conservation of biological resources in rural areas. It will enhance economic development and sustainability of marginal villages and at the same time forms and strengthens the intra-regional relationships between urban and rural centers in creating opportunities and bringing revenues for urban city centers to villages.

The study area is North Khorasan Province, which has received growing attention of organizations in the public and private sectors in the last decade, thereby preparing the ground for the thriving of tourism, especially in rural areas. To address this issue, 9 villages along the main road of Bojnord to Golestan were selected including Badranlou, Zaman Sufi, Darkash, Armadelou, Spakhou, Dasht, Juzak, Shirabad, Keshanak. Proximity to the main road, natural capacities, and historical and cultural attractions, as well as tourism attraction history were the main criteria for selecting these 9 villages from among all the villages located along this transportation axis.

There are a host of researches on rural tourism and its importance in promoting entrepreneurship in regional dimensions. In the last decade of the twentieth century, many socioeconomic planners in European countries have introduced tourism as an unflinching way for the development of rural areas, especially the most deprived areas. Studies conducted in France, Austria, Switzerland, the United Kingdom, Ireland, Thailand and Japan have indicated that rural tourism has grown rapidly in rural economies and has played a complementary role in agricultural activities. The goal of tourism industry is to generate employment and income, diversify the economy, boost social participation, and encourage the exploitation of local resources. Among studies carried out in Iran, Asgari Shamsoddini & Kardavani (2018) in their study on Khor Biabanak region reported that key drivers of ecotourism-based entrepreneurship included travel agencies and tour organizers, investment and participation along with products and services, which imposed greatest direct impact among other determinants. Sojasi Qeidari Roknoddin Eftekhari & Mahdavi (2016) assert that from the late 20th century, sustainable entrepreneurship and its related issues have come under spotlight, giving rise to nature-based and community-centered entrepreneurship. Entrepreneurial activities, products and services such as environmental compatibility, low energy consumption, reduced exploitation of raw materials, the use of renewable materials, recyclability of products, respect for environmental ethics, waste management, use of green technologies and infrastructures that are compatible with the environment have received increasing attention. Nongsiej & Shimray. (2017) explored the tourism industry and its impact on the empowerment of educated youth. In this study, tourism was considered as a major driver of economic and social change, with the tourism business being recognized as the largest and fastest growing sector that plays a pivotal role in job creation. Nugroho, Pramukanto, Negara, Purnomowati & Wulandari (2016) argued that solution to rural development problems is the development of ecotourism in rural areas. This can be achieved by focusing on entrepreneurial education of agricultural managers, infrastructure development, increasing of transportation capacity and development of standard for services and products. Situmorang & Mirzanti (2012) in a study aimed at identifying proper indicators for

ecotourism development presented the empowerment of the local community as the main indicator of ecotourism development, which can be promoted by teaching social entrepreneurship concepts and environmental protection programs to local people. [Kipper, Ozdemir & Saglam \(2011\)](#) in a study on local communities in the northeastern rural area of Turkey using factor analysis, concluded that there is a significant relationship between socio-cultural and economic impacts and tourism development, in such a way that with the improvement of economic- social impacts of natural tourism, people will develop a tendency to participate in ecotourism planning. [Ram and Moure, \(2005\)](#) while presenting ecotourism features as an accessible tool and describing the wide range of stakeholders involved in the management and development of ecotourism, introduced it as an important activity in natural areas in different parts of the world. They contended that ecotourism has the potential to trigger positive changes and develop remote rural areas, in particular, has the potential to create new employment opportunities, revenues and market for local products, and raise environmental awareness about biodiversity and environmental education.

What distinguishes this paper from previous research is its localization and focus on the nature and culture of the Northern Khorasan province, which calls for its own particular strategies in fitting with culture and customs of people in this region. Additionally, rural tourism in this research is evaluated with emphasis on ecotourism. It is intended to develop ecotourism and its

entrepreneurial advantages in the economic, cultural and environmental dimensions from the outlook of identifying rural indigenous architecture and the natural capabilities and landscapes of rural areas.

2. Theoretical Foundations of Research

2.1. Rural Tourism

Rural tourism as a meta-structural function spreads and grows through participation and dependence on other economic sectors, and as a consequence, contributes to the growth of other economic sectors of society. In this regard, the importance of developing tourism industry is due to its expansion of economic interactions between different sectors and the development of social interactions between rural and urban communities and diverse nations and ethnicities ([Roknoddin Eftekhari & Mahdavi 2006](#)). In Finland, rural tourism is referred to the renting of rural cottages to visitors or providing services to them in rural areas. The US Department of Tourism (DOT) also defines rural tourism as things that attract tourists to the periphery of metropolises. As such, rural tourism is perceived as an approach to attracting and retaining tourists in a bid to acquaint them with rural life. In addition to rural prosperity and development, it provides the opportunity to take advantage of natural benefits and environmental attractions of the countryside for urban residents. In the Netherlands, rural tourism is associated with the camping of tourists on farms and the provision of services and activities such as cycling, jogging and horseback riding in these areas ([Rezvani & Najarzadeh, 2008](#)). [Table 1](#) presents typology of rural tourism.

Table 1. Rural tourism typology
(Source: [Ashtari Mehrjerdi, 2004, p. 9](#))

Natural Tourism	It is mainly in interaction with natural attractions
Cultural Tourism	It is related to culture, history, cultural heritage and anthropology of the village
Eco-Tourism	In addition to visiting natural attractions, it interacts with the life and norms of social life.
Village Tourism	Tourists stay in a village or cottages for a short time and contribute to the activities of the villagers.
Agro-Tourism	Tourists visit agricultural ecosystems without leaving any adverse effect on host ecosystems and participate in agricultural activities.

2.2. Ecotourism Entrepreneurship

Rural entrepreneurship has been one of the most important areas in the field of entrepreneurship in

recent years. According to [Wortman](#), rural entrepreneurship involves the establishment of a new organization that introduces a new product or

service, constructs a new market or utilizes a new technology in rural environments (Heriot & Campbell, 2002). According to another definition, rural entrepreneurship is an activity that allows rural people to turn opportunities into profitable economic activities.

Development of ecotourism entrepreneurship encompasses a set of factors and background conditions, policies and legal procedures, as well as behavioral practices that comply with the principles of entrepreneurship, ecotourism and sustainable development, which by creating supportive mechanisms, new incentives and production methods open up opportunities for entrepreneurship, interest, motivation, and entrepreneurial skills in a way that is compatible with environmental protection and the requirements of stakeholders in ecotourism (Sojasi Qeidari Roknoddin Eftekhari, Pourtaher & Azar, 2014). In other words, ecotourism entrepreneurship is the process of discovering and creating new economic opportunities by drawing on potentials of ecotourism and meeting the demands of tourists.

Also, ecotourism entrepreneurship is the optimal use of internal and external stimuli by taking actions in the right time and place to supply novel and upgraded products or services to the market of tourism in an innovative setting while preserving the values of the social environment and nature. Therefore, ecotourism entrepreneurship is the outcome of entrepreneurship development in the context of ecotourism, which leads to the establishment of new businesses in the ecotourism sector, laying the ground for strengthening job opportunities, earnings, marketing and value creation for rural residents (Sojasi Qeidari, Roknoddin Eftekhari & Pourtaheri, 2014).

2.3. Interrelation of Ecotourism and Entrepreneurship

The growth of the tourism industry and the potential of this industry for economic development represents an interesting area of research in tourism." Taylor (year) posits that the main characteristic of the demand for tourism is its rapid change, believing that the supply side should have the ability to adapt quickly to variations in the market demand. In other words, a mechanism for receiving information and assessing the situation and reaction to the environment in the tourism system is required" (Kazemi, 2013). Therefore, tourism is sufficiently novel, chaotic and irregular to attract the attention of entrepreneurs. On a global scale, a group of individuals have been able to introduce transitional

stages in tourism. For example, Thomas Cook is known as the father of mass tourism thanks to the opportunity provided by the invention of the steam engine and its huge potentials for transporting a large number of workers to tourism destinations. In the same way, Walt Disney is also recognized as "the father of theme parks". His creativity and initiative gave rise to a model of constructing theme parks in the world, which has made it possible to transform barren lands into commercial centers (Russell & Wallace, 2004). Sojasi Ghidari et al. (2014) contend that rural ecotourism is an entrepreneurial economic activity aimed at capturing new economic spaces in rural areas and integrating them into the economic cycle. In line with contemporary aesthetic economics, it leads to commodification of the nature in rural areas based on the principles of green economy within the framework of environmental entrepreneurship. Therefore, the relationship between entrepreneurship in tourism and sustainable regional development can be determined by investigating whether entrepreneurship has the potential to exert a positive impact on different economic, cultural and environmental aspects of the society. Entrepreneurship development in small-scale tourism can contribute to regional sustainable development by strengthening the identity of local culture, diversifying rural tourism activities, protecting rural residents in the region, and alleviating environmental pressures due to the small size of economic tourism enterprises. Accordingly, the corporate social responsibility (CSR) of enterprises in the field of tourism plays a crucial role in promoting responsible responses to environmental and social issues (Emani Gheshlagh, Khani & Hashemi, 2012). Therefore, entrepreneurship and innovation are two key factors in tourism, which are essential for the continuous success and development of the tourism industry both globally and regionally.

2.4. Main Factors and Indicators in Development of Entrepreneurial Ecotourism in the Region

Achieving regional development, which is a prerequisite for the exploitation of facilities and potentials of that region, highlights the need for allocating serious attention to regional tourism because the problems that currently afflict agriculture and rural economies and have contributed to the degradation of natural resources in the region would thwart any effort to promote regional development based on these sectors. Instead, by putting the natural, historical and cultural attractions of this sector into perspective,

one can assure people that sustainable regional development in all of these tourist attractions will not be far-fetched (Ghanbari, 2003) North Khorasan Province (and its affiliated cities) has huge

institutional and organizational capacities. Some of the parameters influencing the target population in this research have been presented in Table 2.

Table 2. Factors affecting the development of entrepreneurial ecosystems

(Source: Research Finding, 2018)

External factors	<ul style="list-style-type: none"> - Political changes - Development planning policies - Refrainment from segregated policies and parochial views - Organizational integrity and prevention of parallel works by administrative and organizational bodies - Analysis of tourists' ideas and desires
Internal factors	<ul style="list-style-type: none"> - The attitude and desires of the local community based on cultural, economic and social perspectives - Construction, agriculture and livestock infrastructure - Exploitation of natural and historical heritage

To investigate this issue and identify the strengths and weaknesses of the studied villages based on the information listed about determinants of ecotourism development, a review of theoretical foundations of the research was performed based on a conceptual model proposed by Khatibi, Fakhimzadeh & Buzarjomehri

(2012) in an article entitled "Agricultural tourism feasibility study in South Khorasan Province" using the analytic hierarchy process (AHP) model. The four main indices of the research and the sub-indices are listed in Table 3. By assessing indices set in each village, the priority of villages in ecotourism can be determined.

Table 3. Indices and sub-indices of the research

(Source: Research findings integrated with the conceptual model of Khatibi et al., 2012)

Indices	Sub-indices
1. Agricultural and livestock potentials	<ul style="list-style-type: none"> - Area under cultivation for agricultural and horticultural products - Number of light and heavy-weight domesticated animals
2. Construction and residential infrastructure	<ul style="list-style-type: none"> - Proximity to population centers - Vicinity to main roads and access to transport routes - Service centers
3- Cultural-social attitude	<ul style="list-style-type: none"> - hospitality and willingness to accommodate tourists - The spirit of participation
4. Valuable historical – natural legacy	<ul style="list-style-type: none"> - Existing demand - Natural attractions: rivers, waterfalls and mountains - Number of tourists per year - Environmental issues (sewage, waste and sustainable energy)

Note. Research findings integrated with the conceptual model of "Feasibility study of agricultural tourism in South Khorasan province using AHP model", by Khatibi et al.(2012), National Conference on Agricultural and National Production Based on Land Management. Qom.

3. Research Methodology

3.1 Geographical Scope of the Research

The study area covers the tourism villages in the northern Khorasan province, which are host to a score of travelers from different parts of Iran every year. The statistical population of this research in relation to rural ecotourism consisted of ecotourism

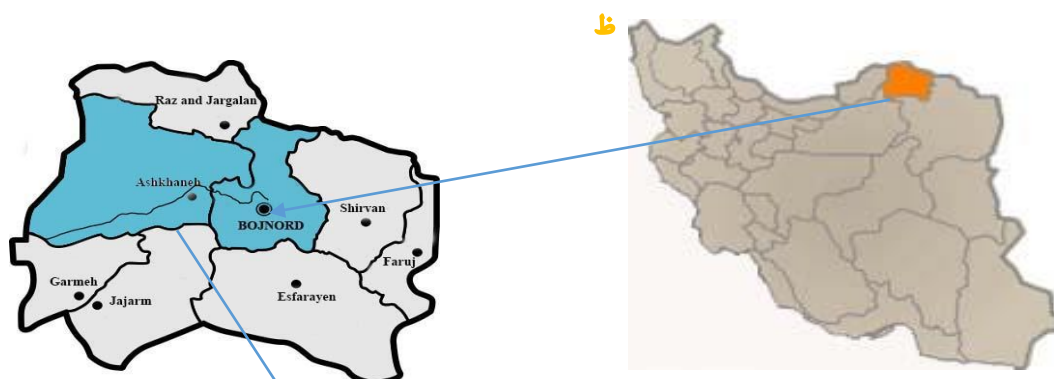
villages in the study area. To explore this subject, the statistical society was divided in two groups. The first group comprised of the experts in this field (tourism experts and authorities) (Cultural Heritage Organization, Governorate, Environment Department), which were surveyed completely and the second group consisted of the local people (North Khorasan Governor, 2015) (See Figure 1). The data derived from 2016 Census are shown in Table 4.

3.2. Methodology

In this research, data collection method involved library research and field studies. After determining the indices and parameters of the research, a self-designed questionnaire was prepared and its validity and

reliability was assessed using Cronbach's alpha method. The statistical population of this research consisted of inhabitants of Badranlou, Zaman Sufi, Armadelou, Spakhou, Darkash, Dasht, Shirabad, Juzak and

Keshanak villages, which are in the proximity of the Bojnour-Golestan main road (the main axis of tourism) and were selected based on the inclusion criteria.



Bojnour-Golestan main road in North Khorasan map

North Khorasan in the map of Iran



Figure 1. The position of the selected villages on the main road of Bojnord to Golestan

(Reprinted from “Google map”, 2018,

<https://www.google.com/maps/@37.4064192,56.8033481,79692m/data=!3m1!1e3?hl=en>)

The main criteria for choosing villages, as described in the introduction, were the proximity to Bojnord-Golestan road, environmental capacities and historical and cultural attractions, as well as a history of tourism attraction. Other criteria included essential infrastructures and utilities such as electricity, running

water, telecommunications, high participation of people, specific fauna and flora species, diverse culture and dialects in the village and climatic conditions. The selection was based on cluster sampling and classification method.

Table 4. The statistical population of the second group (local people) based on 2016 Census and the sample size
(Source: Statistical Center of Iran, 2016)

Village	Population	Households	Sample size
Badranlou	802	224	36
Zaman Sufi	775	236	35
Armadelou	199	65	9
Spakhou	249	79	11
Darkash	1027	316	47
Dasht	1393	433	63
Shirabad	733	225	33
Juzak	189	63	9
Keshanak	2807	886	127
Total	8174	2527	370

After determining the total sample size, the self-designed questionnaire was distributed among the rural inhabitant and the results were analyzed. The clusters included prominent figures and specialists, experienced local people (elders) as well as members of the village council, who were cognizant of general and specific conditions of the village. Among people in each cluster, some were randomly selected to fill out the questionnaires. The Cochran formulas and other formulas used for cluster sampling and classification were adopted to calculate the sample size. In the first group, which involved experts in this field (tourism experts and authorities) (Bam Shahr-e Toos Consulting Engineers Co., 2013), all subjects completed questionnaires. In the second group, based on the local community census, the sample size was calculated using the Cochran formula with an error of

0.06. Table 4 shows the statistical population of the local people and the sample size.

The above four criteria were obtained from the review of the literature. The data on these criteria was collected using questionnaires distributed among the sample together with field studies in the villages under study and their surrounding area. To measure these variables, villages were assessed on a 5-point Likert scale. For example, a village with important historical monuments gains a score of 5 in the sub-indicator of natural and historical capacities, or a village without any educational centers (or low standards) gains a score of 1. The average scores obtained in sub-criteria of all five main indicators (or independent variables) determines the score of each village in that index (Figure 2).

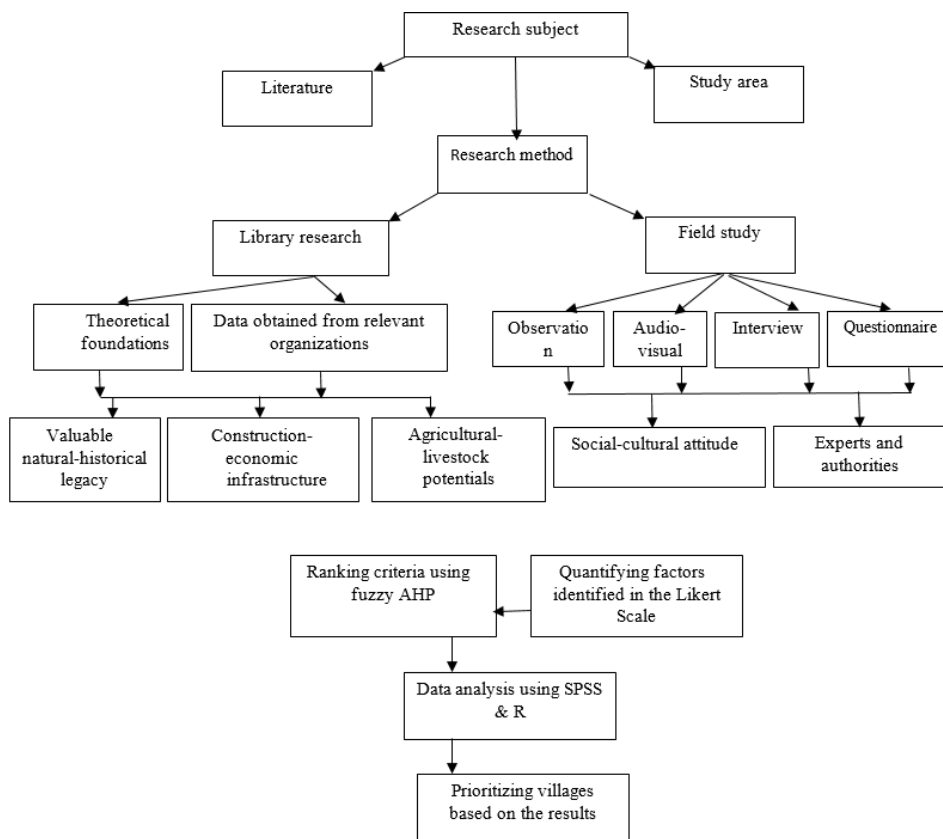


Figure 2. Research method structure
(Source: Research Finding, 2018)

The statistical analysis of this design was performed by SPSS software and Fuzzy AHP package in R. For the analysis of data derived from questionnaires, in addition to descriptive methods (including the percentages of each research variable and presentation of graphs), Kruskal-Wallis non-

parametric test and paired comparison methods were also used. The Kursal-Wallis test is the equivalent of one-way ANOVA for ranking variables, which can be recruited to determine whether there is any difference between villages in terms of research

indices (cultural-social or environmental), and if so, which villages have caused this difference.

4. Research Findings

The results of statistical analyses indicate to significant differences between villages in terms of ecotourism potential. Indicators of entrepreneurial ecotourism in this study consisted of four indices: agricultural and livestock capacities (Agriculture), valuable natural-historical heritage (Tourism), cultural and social attitude index (Culture), and,

finally, a construction and residential infrastructure (Construction). As shown in Table 5, the rank of each village in ecotourism indices was determined. According to the results of this table, Badranlou has the highest rank in the Agricultural index, Dasht has the highest rank in the cultural and historical heritage index, Shirabad has the highest rank in the cultural and social attitude index, and Dasht has the highest rank in the construction and residential infrastructure index.

Table 5. Status of entrepreneurial ecotourism Indicators for each villages

(Source: Research findings, 2018)

Village	Ecotourism development criteria				Mean of villages
	Agricultural and livestock potentials	Valuable natural-historical heritage	Cultural and social attitude	Construction and residential infrastructure	
Dasht	2.0900	4.5000	4.3733	4.0000	3.7408
Shirabad	2.6891	1.0000	4.4592	2.7619	2.7276
Spakhou	2.5111	2.7500	4.2941	3.0000	3.1388
Armadelou	2.8433	2.1250	4.2852	2.5238	2.9443
Darkash	2.3533	4.0000	3.8640	2.9048	3.2805
Keshanak	2.1513	2.0000	4.0954	2.5714	2.7045
Badranlou	3.0811	2.8750	4.1898	3.4286	3.3936
Juzak	1.7360	1.7500	4.3908	1.7143	2.3978
Zaman Sufi	2.0925	3.5000	4.1549	3.6190	3.3416
Mean Capacities	2.3942	2.7222	4.2341	2.9471	3.0744

Table 6. Kruskal-Wallis test results for discrepancy of villagers' in entrepreneurial ecotourism development

(Source: Research findings, 2018)

Kruskal Wallis test	Ch-square	df	P-value
Test of difference between criteria	11/150	3	<2,2e-16
Test of difference between villages	69/816	8	5347e-12

Table 6 shows that there is a difference between villages and indicators of entrepreneurial ecotourism development. For example, the score of cultural and social attitude criterion is higher than the other three indicators, indicating that based on the culture and social attitudes of locals, the area has huge potentials to become one of ecotourism destinations. However, the score of infrastructure and natural and historical heritage is relatively low, which calls for more investment in these indices. Now, given the significant difference between villages and ecotourism criteria, we investigate each village separately in subcategories of ecotourism potential.

4.1. Agriculture and Livestock Index

In order to study agricultural indices in villages under study, horticultural and agricultural products and the ratio of lightweight and heavyweight domesticated animals to each inhabitant of the village were considered. The results suggested that there was no significant difference between these villages in terms of agricultural criterion ($P = 0.721$), and these 9 villages had relatively identical agricultural capacity. Also, considering that data distribution is not normal, using the nonparametric one-sample Wilcoxon test and the median 3, we concluded that index was generally lower than the standard ($P = 0.004$).

4.2. Valuable Natural and Historical Heritage Index

The factors evaluated in this index were the presence or absence of a resort, park, restaurant, local food, historical texture, topographical features, valuable residential texture, handicrafts and nomadic tribes in each village along with the demand of tourists for staying in the village and the number of tourists visiting the village. Unlike the agricultural index, there is a significant difference ($P = 0.009$) between the villages in terms of tourism index, which can be attributed to the desirable status of Dasht, Darkash and Zaman Sufi villages compared to other villages. According to Wilcoxon test results, this index is of moderate standard ($P = 0.514$).

4.3. Cultural and Social Attitude Index

On average, 109 questionnaires were completed by local people, who were randomly selected from each village. It was used to measure the desire and willingness of villagers for hosting tourists in their village as well as the existing capability of people in these villages for accommodating tourists. The initial analysis indicates that the cultural and social attitude index in these villages is higher than the standard level (results of Wilcoxon test; $P = 0.002$). Other results such as tourism potential reflected a significant difference (P -value = 0.000) between

villages in terms of attitude and capability of the host community.

4.4. Construction and Residential Infrastructure Index

One of factors considered in the assessment of rural infrastructure was the quality of roads leading to the village, water supply system, electricity, telecommunication, gas pipelines, health centers, as well as cell phone signal strength and the implementation of the Guide Plan in the village. This index, like the natural and historical heritage index, was of moderate standard ($P = 0.889$). The analysis of rural infrastructure did not indicate a significant difference between villages ($P = 0.118$) and almost all villages had the same infrastructure. After separate analysis of each ecotourism indicator, there are two ways to rank villages in general, without considering sub-indicators. The first method involves assuming that all sub-indices are of the same importance and weight, and the second one requires assigning a distinct significance to each of these sub-indices in relation to potentials of ecotourism. For example, tourism index in ecotourism development is three times as important as agricultural potentials. This leads us to employ the fuzzy hierarchical hierarchy process (FAHP) model (Table 7).

Table 7. Weights obtained for the indicators and sub-indicators of entrepreneurial ecotourism development by the Fuzzy AHP method

(Source: Research findings, 2018)

Indices of entrepreneurial ecotourism development	Index Weight	Sub-index	Sub-index weight	Rank
Valuable natural and historical heritage	0.5637	Demand	0.1808	2
		Tourists per year	0.2559	1
		Natural attractions	0.0944	4
		Environment	0.0327	7
Construction and residential infrastructure	0.2634	Proximity to population centers	3	۳
		Proximity to roads	0.0376	6
		Service centers	0.1129	3
Social and cultural attitude	0.1178	Hospitality and desire to host tourists	0.0884	5
		Participation spirit	0.0294	8
Agriculture and livestock potentials	0.0550	Area of cultivation dedicated to horticultural products	0.0275	9
		Number of lightweight and heavyweight domesticated animals	0.0275	9
		Total weights	1	

4.5. Investigating the Importance of Indicators of Entrepreneurial Ecotourism Development

In order to estimate the importance or weight of each indicator and sub-indicator mentioned in community-centered tourism using the FAHP model, a number of questionnaires were designed and distributed among tourists in North Khorasan and Tehran provinces. Given that the weights obtained from fuzzy AHP cannot be numerically reported, at this stage, we have presented non-fuzzy scores in Table 5. The results of these questionnaires

based on the AHP method exhibited that “valuable natural and historical heritage” index with a weight of 5638 is more important than the rest of indicators, followed by “construction and residential infrastructure” (weight=26343), “cultural and social attitudes” (weight=0.1178) and, finally “agricultural and livestock potentials” (weight=0.0550). The results obtained from the Fuzzy AHP method are presented in Table 6, according to which the Dasht and Keshanak villages gained the highest and lowest tanks among 9 villages, respectively.

Table 8. Final ranking of villages based on Fuzzy AHP method
(Source: Research findings, 2018)

Villages in order of priority	Village score	Natural and livestock potential	Cultural and social attitudes	Construction and residential infrastructure	Valuable Natural and historical heritage
1. Dasht	4.37979	1.981465	3.194545	4.285714	4.884028
2. Darkash	3.877647	2.091794	3.155784	2.877551	4.658652
3. Zaman Sufi	3.515689	1.947851	2.908088	3.510204	3.774623
4. Spakhou	3.312756	3.133333	4.35918	2.428571	3.491261
5. Badranlou	2.926109	2.670371	2.880348	3.55102	2.629932
6. Armadelou	2.446917	2.838537	3.429479	2.387755	2.1931
7. Juzak	2.077164	1.664601	2.526738	1.918367	2.074919
8. Shirabad	2.001571	2.309305	4.181016	2.979592	1.000000
9. Keshanak	1.946578	1.863503	3.0486	2.44898	1.450753



Figure 3. categorization and position of selected villages along Bojnord to Golestan road.
(Source: Research findings, 2018)

5. Discussion and Conclusion

The main concern of this research was to categorize tourist destination villages along Bojnord- Golestan road in terms of entrepreneurial ecotourism indices. By studying indicators affecting ecotourism area, which were classified into four categories based on theoretical foundations which comprised of natural and livestock potentials, cultural and social attitudes, construction and residential infrastructure, and valuable natural and historical heritage, the rank of each village was determined in terms of

ecotourism, as depicted by the results of above tables and charts, especially Table 8.

According to Table 8, 3 villages of Dasht, Darkash and Zaman Sufi have the highest rank, followed by the villages of Spakhou, Armadelou, Juzak, Shirabad and Keshanak that obtained lower ranks. The data was gathered through questionnaires, field studies, and analysis of Rural Guide Plans, which are reliable and verifiable sources. According to the results of Table 6, it can be concluded that for the development of ecotourism in the Northern Khorasan province and in villages located along the

main transport routes, the villages with the highest ranks should be given priority in strategic planning and development of ecotourism tourism as the vast potentials of these villages can help them to realize ecotourism with the lowest costs in a short period of time. As mentioned in the review of literature, there are studies on categorizing villages and ecotourism areas, especially in foreign countries, which have ranked rural areas with different indices according to the geographical features of areas under study. However, what distinguishes this research from other studies is the localization of this research and its focus on the nature and culture of the Northern

Khorasan considering the absence of any research on the Northern Khorasan villages. Moreover, rural tourism in this research has been characterized by different indicators with an emphasis on ecotourism, with the aim of developing the ecotourism and its entrepreneurial benefits in the economic, cultural and environmental dimensions through identifying the indigenous rural architecture and natural capabilities and landscapes of villages (Figure 3).

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اولویت بندی روستاهای خراسان شمالی در شاخص‌های توسعه بومگردی کارآفرینانه (مطالعه موردی: محور ارتباطی شهرستان بجنورد - استان گلستان)

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چکیده مبسوط

۱. مقدمه

گردشگری روستایی منبع با ارزش اشتغال‌زایی و ایجاد درآمد است و می‌تواند وسیله مهمی برای توسعه اجتماعی-اقتصادی جوامع روستایی تبدیل شود و نقش اساسی در توسعه و حفظ روستا دارد. بنابراین اگر فرصت‌های اکوتوریستی به درستی و با رویکرد کارآفرینانه، برنامه‌ریزی و مدیریت شوند، فرایند نیرومندی برای بهره‌وری اقتصادی پایدار و بدون ایجاد خسارات محیطی و تقویت حفاظت از منابع زیستی در مناطق روستایی خواهند بود. این مطالعه به دنبال اولویت بندی روستاهای انتخاب شده بر مبنای شاخص‌های توسعه بومگردی کارآفرینانه در مناطق روستایی است و به عنوان اولین طرح مطالعاتی و اجرایی در زمینه بومگردی روستایی با هدف کارآفرینی در استان خراسان شمالی، اجرا شده است. سوال اصلی بدین صورت مطرح می‌شود که اولویت بندی روستاهای انتخاب شده در محور ارتباطی بجنورد- استان گلستان بر مبنای شاخص‌های توسعه بومگردی چگونه است؟

۲. مبانی نظری تحقیق

دستیابی به توسعه منطقه‌ای که شرط لازم آن استفاده از امکانات و پتانسیل‌های همان منطقه می‌باشد لزوم توجه جدی تر به توریسم منطقه‌ای را بیان می‌کند. از طرفی با نگاهی گذرا به جاذبه‌های طبیعی، تاریخی و فرهنگی که در هر بخش پراکنده می‌باشند می‌توان این امید را برای مردم زنده نمود که پیشرفت و توسعه پایدار منطقه‌ای با این همه جاذبه‌های گردشگری دور از دسترس نخواهد بود. برای بررسی این موضوع و شناسایی نقاط قوت و ضعف روستاهای مورد مطالعه بر مبنای اطلاعات جدول عوامل موثر در

توسعه بومگردی، مرور مبانی نظری پژوهش و براساس مدل مفهومی که در پژوهشی توسط خطیبی و همکاران ۱۳۹۱ با عنوان "امکان سنجی گردشگری کشاورزی در استان خراسان جنوبی با استفاده از مدل تحلیل سلسله مراتبی AHP" انجام شده است؛ چهار شاخص اصلی پژوهش پتانسیل‌های کشاورزی و دامی، زیرساخت‌های عمرانی و اقامتگاهی، نگرش فرهنگی - اجتماعی، میراث ارزشمند طبیعی - تاریخی تعیین شده است. با بررسی شاخص‌های تعیین شده در هر روستا اولویت بندی روستاها در بومگردی تعیین خواهد شد.

۳. روش تحقیق

محدوده مورد مطالعه این پژوهش روستاهای کریدور گردشگری استان خراسان شمالی است که هر ساله پذیرای مسافران زیادی از داخل می‌باشد. جامعه آماری این پژوهش دو گروه که شامل گروه اول صاحب نظران این حوزه (کارشناسان و متخصصان گردشگری سازمان میراث فرهنگی، استانداری، محیط زیست) می‌باشند که به صورت تمام شماری مورد بررسی قرار گرفت و گروه دوم مردم محلی روستاهای هدف گردشگری محدوده مورد مطالعه است. در این پژوهش روش جمع‌آوری اطلاعات به صورت کتابخانه‌ای و میدانی است و پس از تعیین چهار شاخص نامبرده شده در مبانی نظری تحقیق، پرسشنامه پژوهشگر ساخته تهیه شده و روایی و پایایی آن در حین انجام تحقیق به کمک روش آلفای کرونباخ تعیین گردید. روستاهای انتخاب شده این تحقیق بدرانلو، زمان صوفی، آرمادلو، اسپاخو، درکش، دشت، شیرآباد، جوزک و کشانک است که کمترین فاصله را نسبت به جاده اصلی (محور ارتباطی اصلی گردشگری) دارند و بر مبنای ملاک‌های تعیین شده انتخاب شده‌اند. در انتخاب جامعه آماری شیوه نمونه‌گیری به روش طبقه‌بندی و خوشه‌ای است.

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نگرش فرهنگی و اجتماعی (با وزن ۰/۱۱۷۸) و در نهایت شاخص پتانسیل‌های کشاورزی و دامی (با وزن ۰/۰۵۵۰) هستند. اما نتایج نهایی بدست آمده به روش AHP فازی گویای آن است که با توجه به این وزن‌دهی روستای دشت بالاترین رتبه و بعد از آن به ترتیب روستاهای درکش، زمان صوفی، اسپاخو، بدرانلو، آرمادلو، جوزک، شیرآباد، و در نهایت روستای کشانک پایین‌ترین رتبه در بین ۹ روستا را به خود اختصاص می‌دهند.

۵. بحث و نتیجه گیری

از نتایج می‌توان اینگونه استنباط کرد که برای توسعه بومگردی در استان خراسان شمالی و در محور اصلی تردد مسافری و زائرین، روستاهایی که بالاترین رتبه بومگردی قرار گرفته‌اند در اولویت اول برای برنامه ریزی راهبردی و توسعه بومگردی قرار دارند چرا که با صرف هزینه و زمان کمتری نسبت به سایر روستاهای بررسی شده قابلیت بهره برداری در بومگردی را خواهند داشت. تفاوت اساسی پژوهش حاضر و مطالعات مشابه، اولویت‌بندی روستاها با توجه به شاخص‌های توسعه بومگردی کارآفرینانه است از آن جهت که همزمان قابلیت‌های اقتصادی، اجتماعی و محیط طبیعی را در روستاها مورد توجه قرار می‌دهد و به تخصیص مناسب منابع محدود مالی کمک می‌کند.

کلمات کلیدی: بومگردی کارآفرینانه، توسعه روستایی، فرایند تحلیل سلسله‌مراتبی فازی، خراسان شمالی

تشکر و قدردانی:

پژوهش حاضر برگرفته از طرح پژوهشی است که در همین راستا برای اداره کل تعاون کار و رفاه اجتماعی استان خراسان شمالی انجام گرفته است.

حجم نمونه آماری با فرمول کوکران و خطای ۰/۰۶ برای محاسبه حجم نمونه از فرمول‌های کوکران و فرمول‌های مربوط به نمونه‌گیری‌های طبقه‌بندی و خوشه‌ای استفاده شد که ۳۷۰ نفر به عنوان نمونه انتخاب شدند. نحوه اندازه‌گیری این متغیرها در مقیاس لیکرت پنج درجه‌ای و کسب نمره در هر یک از زیرشاخص‌هاست. آنالیز آماری این طرح به وسیله نرم افزار SPSS و بسته FuzzyAHP در R انجام شده است. در تحلیل داده‌های حاصل از پرسشنامه‌ها علاوه بر روش‌های موجود در آمار توصیفی (از جمله گزارش درصدهای هر یک از متغیرهای موجود در پژوهش و ارائه نمودارها از آزمون ناپارامتری کروسکال-والیس و مقایسه‌های زوجی استفاده شد.

۴. یافته‌های تحقیق

نتایج حاصل از این بررسی نشان دهنده این است که از لحاظ شاخص‌های کشاورزی تفاوت معنی‌داری بین این روستاها وجود ندارد و در مورد شاخص گردشگری اختلاف بسیار معنی‌داری بین روستاها وجود دارد. تحلیل اولیه نشان‌دهنده این واقعیت است که شاخص فرهنگی و اجتماعی در مورد این روستاها بالاتر از سطح استاندارد قرار دارد. اجرای آزمون ویلکاکسون با شاخص عمرانی و اقامتگاهی نیز مانند شاخص میراث طبیعی و تاریخی دارای استاندارد متوسطی است و بررسی زیرساختهای روستاها حاکی از تفاوت معنی‌داری بین روستاها نیست به منظور دستیابی به اهمیت یا وزن هر کدام از شاخص‌ها و زیرشاخص‌های ذکر شده از روش FAHP استفاده شده است، استفاده از روش AHP نشان داد که شاخص میراث ارزشمند طبیعی و تاریخی (با وزن ۰/۵۶۳۸) از اهمیت بیشتری نسبت به بقیه شاخص‌ها برخوردار است و پس از آن به ترتیب زیرساخت‌های عمرانی و اقامتگاهی (با وزن ۰/۲۶۳۴)،

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