

Research Paper: Evaluation of Effective Components of Rural Ecotourism in the Sustainable Development of Riab Village, Gonabad City

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ABSTRACT

Purpose: Among the essential needs to achieve sustainable rural development, resource protection is of particular importance, and ecotourism can provide the necessary foundation for implementing development programs and preventing the destruction of natural and cultural resources. The present study was conducted with the aim of influencing the practical components of rural ecotourism in the sustainable development of Riab village, Gonabad city.

Methods: The statistical population consists of 200 researchers, officials, experts, and tourism elites in Gonabad city. The sample size of this study is 132 people selected according to the Cochran method. The data collection tool is a questionnaire that includes sections on respondents' characteristics, the development of ecotourism, and six factors: economic, infrastructure, political, cultural, geography, and education influence the outcome of ecotourism. To determine the validity of the questionnaire, in addition to seeking expert opinion (face validity), convergent validity was used. To calculate its reliability, two Cronbach's alpha methods were used. Data analysis was performed using SPSS software version 26.

Results: The results of stepwise regression showed that infrastructural, cultural, educational and promotional, political and economic, geographical, and natural factors explained a total of 96% of the variance in the variable of ecotourism development in the village (Riab) of Gonabad city.

Conclusion: Considering that tourists visit different places for entertainment and relaxation, infrastructure such as transportation, shopping malls, accommodation, and amenities, entertainment should be provided. Entertainment, health care, and restaurants to develop sustainable eco-tourism in rural areas.

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1. Introduction

Tourism is one of the essential modern human activities, which continuously transforms the politics, economy, culture, character, and lifestyle of people and causes enormous changes on the earth (Dwyer, 2020; Mahalati, 2001). Tourism is one of the largest, most prominent, richest, and most diverse industries in the world. This sector represents one of the development strategies of many countries as a primary source of income, employment, private sector growth, and infrastructure development (Winkler & Morgan, 2021). At the same time, ecotourism, one of the main types of tourism, is widely promoted as a rural development tool (Gholami & Ghasemi, 2018). The World Tourism Organization defines ecotourism as a type of tourism in which people travel to natural (relatively untouched) areas for scientific purposes and the appreciation of natural landscapes, vegetation, and wildlife, as well as for purely cultural aspects. It defines both the past and the present (Kalaitan et al., 2021). Generally, activities that meet the following criteria are classified as ecotourism activities: – Attractions must be predominantly nature-oriented, and Attractions must have an educational aspect for visitors (Pujar & Mishra, 2021). Tourism management should aim to respect the principles of environmental, social, cultural, and economic sustainable development (Baksh et al., 2013). Ecotourism as a type of tourism industry within the spatial tourism model offers many opportunities in terms of environmental adaptation towards sustainable tourism (Hussain., 2022).

Nature tourism contributes to the development of small local businesses, increases economic income, encourages residents to continue their traditional lifestyle and local culture, and finally respects social values (Masoom et al., 2012: 48). In the regional planning process, rural tourism has played an essential role in achieving sustainable development of the country’s rural areas by

adopting strategies aimed at establishing a compatible interaction between nature tourism and the rural regions (Keyani Salmi et al., 2016: 83). Sustainable rural tourism is an appropriate response to reducing poverty, reducing migration, and creating employment opportunities in rural areas and is considered a way to solve economic problems in these areas (Motiei Langerudi & Rezaieh Azadi, 2013: 77). Of course, the development of tourism in rural areas brings various economic, social, cultural, and environmental changes (Lee, 2013: 40). These consequences include the impact of tourism on the sustainable development of local communities (Yari & Bakhtar, 2016: 121). Since the effects of rural tourism directly affect the host community, the support of these projects by the local community is one of the most critical factors in the success of rural tourism development projects. Research shows that in small rural communities, improving the economic situation is the most crucial reason for residents’ positive attitudes and satisfaction (Jackson & Inbakaran, 2006: 356). Knowledge of this work can effectively help planners plan sustainable tourism development (Akbarian et al., 2014: 47).

Given the natural attractions of the villages of Gonabad city, with proper planning, we can look towards the future of ecotourism in this region. The presence of unique natural values in the area and the location on the tourist route are features that can lead to the growth and development of tourism in the region. Given the tourist peculiarities of the region, the need for proper planning of tourism and ecotourism in the city of Gonabad is strongly felt, and the results of this research can help organize schedules for conducting tourist trips, as well as necessary plans to increase the quantity and quality of services. Responsible organizations and institutions must use tourism. Therefore, this study identified elements of nature tourism in Riab village of Gonabad city. This research seeks to take a new and practical look at tourism by examining strategic factors from the perspective of experts in the field of ecotourism and sustainable rural development.

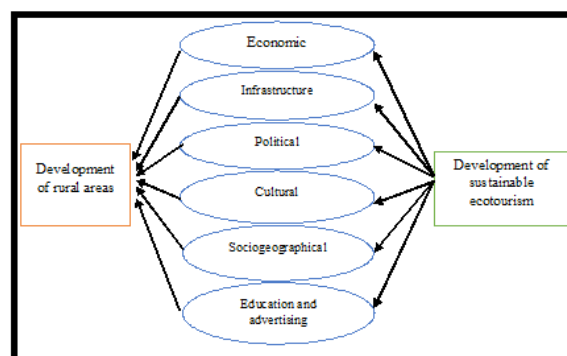


Figure 1. Conceptual model of the study

2. Literature Review

The demand for tourism has been augmented in natural and geological environments (Hadzic et al., 2010). The term ecotourism means visiting pristine natural areas in a way that, while protecting the ecosystem, also pays attention to the dignity and respect of local communities (Ricklefs, 2001). Ecotourism is currently an essential part of the global tourism industry (Fennel, 2020). It has significant impacts on many regional and national economies, local people, and the environment (Tseng et al., 2019). There has yet to be a consensus on the definition of ecotourism in tourism literature. However, Weaver argues that the purpose of ecotourism has changed from the traditional view of “being a form of tourism” to an approach to “being in tourism” (Weaver, 2008). Therefore, it can be said that today, ecotourism is one of the fastest-growing components of the green economy in the tourism industry, which emphasizes environmental protection and economic and social development (Anup et al., 2015). In other words, ecotourism is a form of postmodern tourism that is more closely related to the socio-economic structures of local communities and plays a vital role in the development of rural areas by creating job opportunities and sources of income. It is a powerful instrument for the protection of biodiversity and local cultures (Inali et al., 2014).

In the theories and perspectives concerning ecotourism, different classifications are presented for different types of ecotourists. For example, Kassler (1991) classified ecotourism into three categories: free ecotourists, organized ecotourists, and academic groups. Lindbergh (1991) offers another classification. According to the amount of time they travel, the expectations they have of the trip, and how they travel, Lindbergh divided the ecotourism visitors into four categories, including scientific and educational researchers, individual travelers interested in conservation and culture, and the environment, the people interested in unusual, exceptional journeys and those with occasional visits to attractions. In all four groups, the development of ecotourism depends on the participation and support of the local community (Pornprasit & Rurkkhum, 2019; Yoon et al., 2011). In fact, the development of ecotourism can only achieve its goals and be successful with the views and support of the local community (Quezada-Sarmiento et al., 2018). In this regard, the concept of Community Based Ecotourism (CBE) is a growing phenomenon in developing countries. The idea of CBE states that the communities play a crucial role in participating in and controlling ecotourism projects and that a significant portion of the economic benefits of tourism development remain

within the community (Tosun, 2005). In the literature about the CBE, there are three main kinds of investment, including investment management by the community itself, community-based investment or creative groups, and joint ventures between the community and family with an identified foreign business partner (Wesche & Drumm, 1993). In all three approaches, the role of the local community must be considered in the economic benefits of ecotourism development. Fennell (1999) and Blamey (2001) believe that the fundamentals of ecotourism are based on the three principles of economic, socio-cultural, and environmental sustainability, which emphasize education and learning, management, and nature-based journeys.

First: management; economic, socio-cultural, and environmental sustainability

The most controversial part is how to manage ecotourism to result in sustainability. There is no doubt about the importance of the issue of sustainability. If ecotourism is to be considered a prominent supreme aspect of tourism in line with sustainable development, it should be possible to measure it in different regions (Fernández & Sánchez Rivero, 2009). However, it is not easy to assess sustainable development trends and their aspects. Therefore, the indicators of this assessment should be defined, and the thresholds of each aspect of sustainability should be determined for this purpose (Fennell & Weaver, 2008). Measuring the sound implementation of the principles or their evaluation should be considered as one of the main goals of tourism planning. In other words, to examine the extent to which ecotourism and its principles have been observed among tourists, it seems necessary to explore the drawbacks of this approach and its changes as the goals of ecotourism evaluation. For the accurate determination of indicators and components of ecotourism, it can be helpful to study the historical trend of ecotourism. The concept of ecotourism has evolved. Before the 1990s, the idea relied only on environmental protection. After the 2000s, it found a broader scope of the dimensions, including education, justice, economic and social benefits, and attention to the moral extent, responsibility, and protection of indigenous culture in addition to environmental protection (Cobbinah, 2015). The selection of ecotourism destinations by visitors and the evaluation of these destinations from their perspective can be effective in understanding the compliance of the tourism system with the principles of ecotourism. The variables affecting the demand for travel to the destinations can be income, age, sex, education, interests and motivations of the visitor as well as economic, political, and social status of the home coun-

tries, and also the level of access to tourism destination information (Yap & Allen, 2011). Some other variables are travel services, advertising and media, restrictions in the destination and origin, security, the target market of tourism, rules and regulations in the source and destination, development level of services and infrastructure, climatic conditions, use of new technologies in tourism services, number of incoming visitors in the destinations, travel expenses (Sun et al., 1991; Sunday, 1978), tangible and intangible experiences (Sun et al., 1991), lifestyle, attitude and perception (Yap & Allen, 2011). With these descriptions, ecotourism assessment is a tool that can help tourism decision-makers and policymakers know what they should or should not do in an effort to build a more sustainable society. This requires the use of methods and tools for assessing the progress towards ecotourism. One of the most essential tools that can measure the compliance of the visitors in an area with the principles is the barometer of ecotourism. The barometer in this study is presented with a fundamental modification of the barometer of sustainability. Indeed, different dimensions, indicators, and items have been considered for the two primary components of the welfare of the human system and the natural ecosystem. According to the literature and models mentioned in previous studies, these models have been modified using an innovative approach in this study. The two models developed are the ecotourism barometer and ecotourism radar.

Second: Learning opportunities

Ecotourism should create maximum satisfaction in visitors by creating opportunities for learning on-site and help improve their understanding of nature and culture. At a deeper level, however, interpretation has a profound influence on ecotourism, leading them to adhere to environmental ethics (Fennell, 1999; Orams, 1997).

Third: nature tourism

Classic ecotourism develops only in natural areas and, of course, affects the history and culture of the affected area. These cultural elements can be considered as a subsidiary attraction in the field of ecotourism. It should be noted that ecotourism may involve an entire ecosystem as a whole or only a specific natural interest of that ecosystem (Fennell & Weaver, 2008).

Many domestic and foreign studies also mention the impact of ecotourism in rural communities. Stronza and Gordillo (2008) By assessing local leaders' perspectives on the impact of ecotourism on their communities, they found that the local community had achieved economic

benefits, residents' self-esteem had increased, and community organization had improved. However, over time, as mutual relationships become restricted, social conflicts become more severe. Mendoza-Ramos and Prideaux (2014) showed that the average self-determination in a village near the World Heritage Site of Palenque in southern Mexico was 2.25 out of 5, which was below average. In this study, the highest levels of empowerment were associated with psychological empowerment (3/2). The average social empowerment was 2.4, ecological empowerment was 2.2, and economic and political empowerment was the lowest at 1.7. Boley and Gehee (2016) found in their study that ecotourism has a positive impact on local socio-economic development in South Africa. Akwah et al. (2017) examined the socio-cultural impact of ecotourism on local communities adjacent to protected parks in Ghana. They found that, in their view, increasing awareness and respect for local culture is bringing the park into the spotlight of global impact, and growing Support for environmental protection is one of the most critical impacts of ecotourism in the study area. Mendoza-Ramos and Prideaux (2018) did not show in their study that the average utilization rate of ecotourism potential in the village of Cuba, Mexico, was 3.7 out of 5. This rate was 4 for political empowerment, 3.9 for psychological empowerment, 3.7 for economic empowerment, 3.5 for social empowerment, and 3.4 for environmental empowerment. Research results from Khalid et al. (2019) have shown that there is a significant relationship between strengthening the local community and the development of sustainable tourism and that maintaining the local community can support and develop sustainable tourism. Abdillah and Prayogo (2020), in a study on ecotourism development based on empowering local forest rural communities, found that emphasizing local skills can lead to the independence of local communities in the ecotourism development process, from planning to Development. The implementation of ecotourism and local communities can benefit from it. It uses local knowledge, culture, and resources to improve the welfare of its members without violating forest protection laws.

Baloch et al. (2023) conducted a study titled "The impact of tourism development on environmental sustainability: a proposed framework for sustainable ecotourism." The population surveyed is composed of stakeholders of the tourism sector, including tourists, representatives of local communities, members of the civil administration, hoteliers, and tour operators serving the regions. To ensure better understanding, a total of 650 questionnaires with a brief description of the critical study variables were distributed to respondents. The sur-

vey results showed that a significant number of people see socio-economic benefits, including job and business creation and infrastructure development, resulting from tourism development and growth. However, the state of natural and environmental capital is gradually deteriorating. In addition to the social environment, social vulnerabilities due to excessive land use, the influence of foreign cultures, air and water pollution from traffic congestion, solid waste accumulation, sewage, and greenhouse gas emissions were also reported. This study proposes a model framework for the sustainable development of ecotourism that includes supportive government interventions to ensure effective conservation of natural and environmental resources without compromising the economic sustainability and social well-being of local populations.

Imikan et al. (2023) conducted a study to assess the contribution of ecotourism as a poverty alleviation strategy among rural women in Akwa Ibom State. These studies were descriptive and educative. Based on the identification survey, three key ecotourism sites were purposively selected for the study, and a total of 150 surveys were conducted. The results showed that women have a significant impact on and are an integral part of the development of sustainable ecotourism. The researcher, therefore, recommends that women actively participate in ecotourism activities and strengthen the culture that protects natural resources and supports biodiversity.

Vosughi and Ghasemi (2013) found in their study that the development of ecotourism significantly increased the social, economic, and psychological empowerment of women in Shibdras village on Qeshm Island. The results of the survey by Rahmani et al. (2016) indicated that the elements of local community empowerment in terms of participation, human strength, and destination competitiveness had a significant relationship with strengthening tourism development in West Azerbaijan Province. The results of the study by Keyani Salmi et al. (2016) show that organizing guided nature tours had a positive impact on the economic, cultural, and environmental aspects of rural areas of Damavand. The economic factor plays the most crucial role in explaining the effects of nature tours on improving social, economic, and environmental indicators. In contrast, cultural and environmental dimensions are the other dimensions that the development of nature tours has influenced. Salehi et al. (2017), in a study on local participation and development of ecotourism in Jenat Rudbar village in Ramsar City, which listed the socio-cultural, economic, and environmental impacts of the eco-tourism project, found that the local community was aware of the men-

tioned impacts and consequences was. Moreover, they were fully aware of the positive and negative effects and consequences. Bishmi and Akbari (2018) studied the economic impact of nature tourism tours in Damavand City, and the results showed that the implementation of nature tourism tours in Damavand City has a positive effect on the local community. Refahi Dehr and Shams (2018), in their assessment of the ecotourism opportunities of Manizan, a tourist resort in Malayer County, stated that the development of the local economy and the active presence of the private sector in the tourism industry are among the opportunities. They were provided by industry. Azizi et al. (2018) studied the economic and social impact of ecotourism on the capacity of local communities in Belde District, Mazandaran Province. They found that there is a positive and significant relationship between the elements of economic and social factors and the performance ratio. Mahmoudi et al. (2018) analyzed the economic and social impact of eco-resorts on rural development (case study: eco-tourism in Kashmir), and the results of a one-sample t-test showed that the social and economic effects of eco-resorts in the region affected by it was assessed positively and can be transferred to society as a whole. The research results of Shafei Sabet and Heratifard (2018) indicate the existence of a positive and significant relationship between the empowerment of local actors and three variables, namely the economic, socio-cultural, and environmental-ecological impacts of tourism development.

Ghasemi et al. (2022) in a study analyzed the impact of ecotourism on local community empowerment (case study: Swadkoh town), and the results showed that the average total charge in the town of Swadkoh is 1/3 out of 5. The highest level of empowerment is related to psychological (3.35) and environmental (3.22) components, and the lowest level is related to political parts (2.89) and economics (2.96). Abbasi et al. (2022) found in their study that the combination of social responsibility, environmental responsibility, growth and development through ecotourism, and innovation and creativity in ecotourism ensures the development of ecotourism entrepreneurship in rural areas.

3. Methodology

In terms of objectives, the present study is applied, and in terms of data collection, it is considered a field study. This study was conducted using a quantitative method in a cross-sectional survey in the villages of Gonabad city. Its statistical population includes 200 researchers, officials, experts, and traveling elites from Gonabad, and the sample size was estimated to be 132 using the Cochran

formula, which allows for a 5% error (95% confidence level).

In order to collect data, the questionnaire of Najafi et al. (2015) was used, which includes two parts of personal and professional characteristics (4 questions) and six components of the most critical components affecting the development of ecotourism (nature-oriented), including economic factors (6 items including Sufficient investment, marketing activity, financial stability, attracting private sector investment, communication with international institutions, government support, providing appropriate financial and technical resources), infrastructure factors (2 items including residential, welfare, and infrastructure facilities, upgrading the regional transportation network), Policy-making factors (5 things including legal policies and procedures, support of government officials, establishment of a planning and policy-making center, political stability, tourism management), cultural factors (3 items including: familiarizing local people with tourism culture, holding festivals and Traditional rituals, people's understanding of natural resources and their preservation), social and geographical factors (your six topics: social capital, social security, environmental conditions, protection of natural tourist attractions, the size of the tourist area by using the surrounding land, creating a tourist village) and Educational-promotional factors (6 items included: training tourism experts, holding a national ecotourism conference, holding exhibitions, creating a website, educating local people, educating local people and tourists). These variables were measured and coded in the form of a five-level Likert scale from "very little = 1" to "very much = 5". These items were designed based on the factors influencing the development of ecotourism (nature-oriented). First, the validity and reliability of the research model was examined. To calculate the reliability of the questionnaire, two reliability methods, Cronbach's alpha

and composite, were used, and to determine the reliability of the research questionnaire, in addition to obtaining expert opinions (face validity), average variance extracted (AVE) was also used to determine the degree of convergent validity. Convergent validity is a quantitative measure that shows the degree of internal correlation and association of measurement items within a category. In this study, descriptive statistics such as percentages and averages were used. For this purpose, SPSS version 26 software was used, and stepwise regression testing was used to analyze the data.

In terms of geographical location, the city of Gonabad is located at 34°21' N, latitude and 58°41' E, latitude and lies at an altitude of 1,056 meters above sea level (Figure 1). According to statistics and information obtained from the Synoptic Weather Station Gonabad, the average annual rainfall during the statistical period 2001-2021 was 135.7 mm. As reported by the Synoptic Weather Station Gonabad, the average yearly temperature is 17,35 cm. It has graduated. The average, minimum, and maximum annual relative humidity of this city are 39.4, 22, and 63%, respectively. According to the Domarton climate classification method, this city has a dry climate (Khorasan et al. Institute, 2022).

4. Findings

Examining the personal characteristics of the respondents shows that the frequency of residents is 51%, civil servants are 28%, and tourists are 11%. Checking the age of the respondents shows that the highest frequency is between 20 and 25 years old (28%), and the lowest frequency is under 20 years old (6%). The frequency of sexual intercourse was for men (60%) and women (40%). The highest frequency is associated with those with a bachelor's degree (37%), and the lowest frequency is associated with those with a doctoral degree (2%).

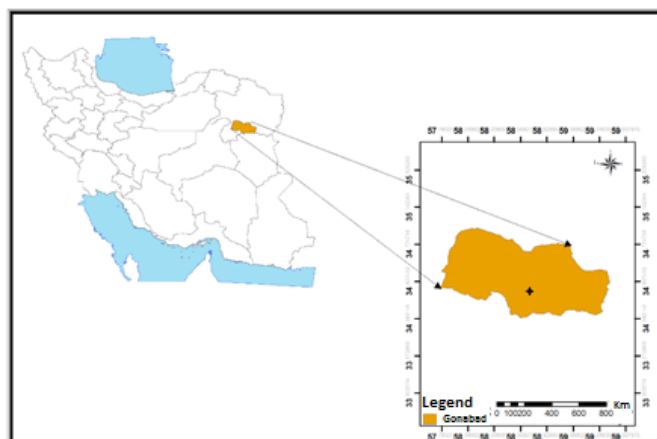


Figure 2. Geographic location of Riab village, Gonabad city in Iran

The average variance extracted (AVE) was used to determine the convergent validity of this measurement model. The results presented in Table (1) for the model of components affecting the development of ecotourism naturalist) show that the AVE value of all items of the measurement model is more significant. 0.5, this measurement instrument, therefore, has convergent validity. Moreover, it measures what it claims to measure. To verify the reliability of the measurement model, Cronbach's alpha and composite reliability criteria were used.

To analyze each regression step, the test assumptions were first verified. First, Kolmogorov-Smirnov was used to determine the normality of the data. As shown in Table 2, the significance level of the Kolmogorov-Smirnov test is more significant than 0.05, so the assumption of normal distribution of the variables is met. Another assumption considered in regression is the independence of the errors (the difference between the actual value and the value predicted by the regression equation)

from each other. If the assumption of independence of errors is rejected and the errors are correlated, then regression cannot be used. The Durbin-Watson test allows testing the independence of observations (independence of residual values or errors) from each other.

The Durbin-Watson statistic is a test statistic used to test the existence of autocorrelation between residuals in regression analysis. The value of this statistic is always between 0 and 4, and its accepted thresholds are as follows: A value of 2 for this statistic indicates no autocorrelation, which is the optimal state in the Key assumptions regarding residuals in regression analysis. Moreover, suppose the weight Of the test statistic is less than one or greater than three. In that case, this is a warning of the presence of positive or negative autocorrelation between the residuals. Since the Durbin-Watson statistical value ranges from 3 to 1, the assumption of independence of the errors is not rejected. The errors are uncorrelated, and regression can be used (Table 2).

Table 1. Convergent validity and reliability of the model measuring the effective components of rural ecotourism in the sustainable development of Riab village, Gonabad city

factors	Number of items	Cronbach's alpha	CR	AVE
Economic factors	6	0.911	0.915	0.586
Infrastructure factors	2	0.873	0.88	0.539
Political factors	5	0.892	0.92	0.594
Cultural factors	3	0.801	0.87	0.595
Social and geographical factors	6	0.935	0.91	0.685
Educational and study promotion factors	6	0.854	0.93	0.639



Table 2. Kolmogorov-Smirnov test on the assumption of normality of distribution and Durbin-Watson's test for statistical errors

factors	Durbin-Watson	sig	Z Kolmogorov-Smirnov	Sig
Economic factors	1.9	0.000	1.28	0.074
Infrastructure factors	2.12	0.001	1.19	0.114
Political factors	2	0.000	1.17	0.127
Cultural factors	1.9	0.00	1.05	0.216
Social and geographical factors	2.3	0.000	1.27	0.076
Educational and study promotion factors	2.5	0.000	1.17	0.127



The results of the stepwise regression analysis for the variable (ecotourism development) are presented in Table 3. In the first step, the first variable is included in the study, and the remaining variable is the infrastructure ingredient. Meaning this variable has the most significant impact compared to other predictor variables.

Second, after the infrastructure component, the cultural variable enters the equation. At this stage, according to the coefficient of determination obtained, it can be confirmed that about 59% of the changes in natural tourism development are due to changes in two variables: infrastructure and cultural variables.

In the third step, after the infrastructure variable and the cultural variable, educational and promotional factors were integrated into the equation. At this stage, according to the coefficient of determination obtained, about 74% of the changes in nature-based tourism development are due to changes in the three variables mentioned above. In the fourth step, after the infrastructure variable, the cultural variable, and the educational promotion factor, the political variable is introduced into the equation. At this stage, according to the coefficient of determination obtained, it can be confirmed that about 85% of changes in natural tourism development are due to changes in 4 variables (infrastructure variables, cultural variables, education promotion, political factors, and variables).

In the fifth step, after the infrastructure variable, cultural variable, educational enabler, and political variable,

the economic variable is introduced into the equation. At this stage, according to the coefficient of determination obtained, it can be confirmed that about 90% of the changes in the process of ecotourism development of Riab village, Gonabad city are due to changes in 5 variables (infrastructure, culture and education-promotion, policies, and economic factors). In the sixth step, after the infrastructure variable, the cultural variable and the educational and promotional, political and economic, geographical and natural factors were integrated into the equation. At this stage, according to the coefficient of determination obtained, it can be confirmed that about 96% of changes in natural tourism development are due to changes in 5 variables (infrastructure, culture, education - advertising, politics, economics, and geographical and natural factors).

Table 3. Results of stepwise regression analysis of effective components of rural ecotourism in the sustainable development of Riab village, Gonabad city, based on predictor variables

	predictor variables	B	β	R	R2	t	Sig
1	Fixed	2.6				48.21	
	Infrastructure factors	0.21	0.59	0.61	0.37	14.2	0.000
2	Fixed	2.2	1.1			36.4	0.000
	Infrastructure factors	0.19	0.57	0.61	0.37	16.1	0.000
	Cultural factors	0.18	0.46	0.77	0.59	14.7	0.000
3	Fixed	1.46				16.6	
	Infrastructure factors	0.196	0.59	0.61	0.37	11.3	0.000
	Cultural factors	0.178	0.44	0.77	0.59	14.9	0.000
	Educational factors	0.212	0.388	0.86	0.47		0.000
4	Fixed	1.01				17.09	
	Infrastructure factors	0.17	0.51	0.61	0.37	25	0.000
	Cultural factors	0.18	0.44	0.77	0.59	22.2	0.000
	Educational factors	0.2	0.37	0.86	0.74	18.5	0.000
	Political factors	0.165	0.35	0.92	0.85	16.9	0.000
5	Fixed	0.53				11.5	0.000
	Infrastructure factors	0.16	0.49	0.61	0.37	35.3	0.000
	Cultural factors	0.18	0.44	0.77	0.59	32.3	0.000
	Educational factors	0.19	0.35	0.86	0.74	26.1	0.000
	Political factors	0.17	0.35	0.92	0.85	25.3	0.000
	Economic factors	0.15	0.28	0.95	0.9	20.8	0.000
6	Fixed	2.6					0.0000
	Infrastructure factors	0.17	0.5	0.61	0.37	6.4	0.000
	Cultural factors	0.17	0.42	0.77	0.59	3.98	0.000
	Educational factors	0.17	0.31	0.86	0.74	4.47	000/0
	Political factors	0.17	0.35	0.92	0.85	3.25	0.000
	Economic factors	0.17	0.31	0.95	0.9	3.54	0.000
	Social and geographical factors	0.17	0.27	0.98	0.96	3.2	0.000



5. Discussion

Today, the tourism industry, especially nature tourism or eco-tourism, has witnessed significant growth in societies, policymakers, institutions, public and environmental organizations, and sustainable development, as well as the creation of currency and income in Rial. In gross national product. According to forecasts from the World Tourism Organization, by 2020, the world's weakest and least-tourist countries will earn more than 20 billion dollars from this industry, and the average income of tourist countries will reach \$50 billion this year. Year. If Iran invests and emphasizes attracting natural Eco tourists, the country can quickly achieve the revenue predicted by the World Tourism Organization. One of the policies and goals of the government of the Islamic Republic of Iran is to develop the tourism industry to reduce dependence on oil revenues. Recently, special attention has been paid to this industry because the country of Iran has high and unique potential in the field of tourism. The purpose of this study is to evaluate the practical components of rural ecotourism in the sustainable development of Riab village, Gonabad city.

Factors affecting nature-based tourism in the sustainable development of Riab village, Gonabad city, were studied through stepwise regression testing. The results showed that infrastructure, cultural aspects, educational and promotional activities, policy making, economic, geographical, and natural variables It was balanced, and in total, 96% of the variance of ecotourism development in the village Riab of Gonabad city is explained by these six factors. The results show the importance of these six factors in two cases Because these six variables can explain a significant percentage of the changes in ecotourism development. The research results of [Heshmati et al. \(2022\)](#), [Kia \(2021\)](#), [Hosseini and Payedar \(2022\)](#), and [Arab Ali et al. \(2021\)](#) also affirmed the importance of education in developing ecotourism. In the field of tourism, education and information are essential. The main channel is the presentation of the capacity and capabilities of the region. This education should be considered for many interested and interested groups, including residents, managers and planners, and tourists. By organizing conferences, festivals, and exhibitions, creating an information website, and distributing booklets and brochures, take action on this critical issue.

Based on the research results, the policy component is one of the influential factors for the development of ecotourism in rural areas of Gonabad city, which agrees with the research results of [Ahmadi et al. \(2016\)](#). The

infrastructure factor is also identified as one of the critical factors. On the one hand, there is intense competition between countries and in times of different countries in the field of tourist attraction and retention; on the other hand, tourists return to different locations. The primary purpose is entertainment and relaxation, and the most basic facilities must be provided. Otherwise, they will be disappointed. Therefore, as the primary and fundamental solution in the field of eco-tourism development in the study area, it is necessary to take necessary measures to provide infrastructure such as transportation, sales centers, and accommodation. Accommodation and welfare, entertainment, health care, and restaurants. Research results of [Aali and Sadeghi \(2021\)](#), [Shateriyan et al. \(2017\)](#), and [Najafi et al. \(2016\)](#) affirm the importance of infrastructure factors in developing ecotourism. Based on the factors influencing the development of nature-based tourism, the following recommendations are made:

Introducing eco-tourism areas and planning to take advantage of environmental potential.

Local community participation in planning, development, and protection of natural resources in ecotourism areas.

Prepare promotional film trailers and play them for locals and tourists to understand the ecotourism possibilities of the area better.

Create an information website to provide comprehensive information on the region's ecotourism possibilities and to keep this website continuously updated.

Providing appropriate transportation is one of the critical practical infrastructure elements in attracting tourists.

Continuous inspection and monitoring of the functioning of each of the service provider units and dealing with the offending units.

Training of expert and experienced forces in relation to ecotourism.

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Conflict of Interest

The authors declared no conflicts of interest.

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