

Research Paper: The Effects of Rural Tourism on the Sustainability of Local Communities (Case Study: Rural Areas of Rudbar Qasran around Tehran Metropolis)

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Citation: Saghafiasl, S., & Afrakhteh, H. (2022). The Effects of Rural Tourism on the Sustainability of Local Communities (Case Study: Rural Areas of Rudbar Qasran around Tehran Metropolis) *Journal of Sustainable Rural Development*, 6(2), 169-182. <https://dorl.net/dor/20.1001.1.25383876.2022.6.2.1.4>

 <https://dorl.net/dor/20.1001.1.25383876.2022.6.2.1.4>

Article info:

Received: 03 Feb. 2022

Accepted: 17 July 2022

ABSTRACT

Purpose: The current research aimed to identify rural tourism's role in the sustainability of local communities in Rudbar Qasran villages.

Methods: The research method is qualitative-quantitative, and the statistical population in this research includes two groups: First, specialists and graduates of tourism and rural geography were targeted for interviews. (until the results are saturated), so 50 individuals as participants were determined by available sampling. Second part: Rural residents (Rudbar Qasran), of which 375 people were determined as the sample size based on random sampling. The grounded theory model and SPSS software were used to analyze the information in the qualitative and quantitative parts.

Results: The results in the qualitative section extracted factors such as culture, Integrated and coherent management in the village and tourism organizations, legal and financial, infrastructure, using specialized labor, marketing, and avoiding inconsistent patterns. Also, the Kendall rank correlation test results showed that concepts of the mentioned categories and semantic units could be generalized to the population. In the quantitative part of the research, spearman correlation and regression showed a significant and positive relationship between the factors proposed in rural tourism development and local communities sustainability (economic, social, and environmental dimensions). Also, the regression results showed that among the factors entered into the regression equation, the factor (integrated and coherent management in the village and tourism organizations) predicts positive changes in the dependent variable (sustainability of local communities) more than other factors. Among all factors, "integrated and coherent management in the village and tourism organizations," with a value of 0.167, directly affects the stability of the local communities of Rudbar Qasran villages.

Conclusion: All the tourism development factors raised in this study can take a big step in the sustainability of local communities in Rudbar Qasran villages. These factors will improve the employment status and income of residents of local communities. Furthermore, if the service sector improves, public and private investments will provide welfare conditions for the residents of the villages.

Keywords:

Rural tourism, Sustainable Development, Local Communities, Rudbar Qasran, Tehran Metropolis

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1. Introduction

Diversifying the economy is currently a primary tool for raising the indicators of human development, reducing the problems caused by industrialization and excessive pollution of cities, creating jobs, interacting between cultures, preserving the environment, and creating sustainable development. Tourism is an economic advantage, especially for developing countries, to accelerate national development (Ibrahimpour & Roshandel Arbatani, 2012). Recently, tourism has been placed in some countries' economic development (Mir Katouli & Mossadegh, 2011). Today, tourism is called the road to development (Swarbrooke, 1998). The multidimensional nature of tourism, other than meeting the needs of tourists, causes significant changes in the system of the host society (Dwyer et al., 2009). In this regard, rural tourism is a type of tourism with more than a century of history. Rural tourism can potentially contribute to rural areas' development (Bel et al., 2015). This type of tourism combines experiences shared and presented to rural life and becomes new rural activities (Maldan et al., 2014: 5). However, tourism in human settlements, especially villages, can have significant effects. By providing attractiveness and creating a desire to use the space and characteristics of the rural environment, rural tourism leads to economic, social-cultural and environmental improvement for the host region (Mohammadi et al., 2020).

In addition, many development planners and policy-makers also refer to the rural tourism industry as the central pillar of the stability of local communities. Rural tourism is not a new topic in economic progress and sustainable development (United Nations Conference on Trade and Development, 2013). Given that the rural areas in Iran have remarkable potential and capacity in terms of tourism, agriculture, handicrafts, rural development, and empowerment can provide the conditions for the sustainability of local communities in rural areas (Rahmani Fazli et al., 2018). However, despite having many capacities in rural tourism, Iran still needs to achieve a real place. According to the 2018 report of the United Nations World Tourism Organization, the number of tourists traveling to Iran was equal to 4 million 942 thousand people in 2016, and in 2017 this number reached 4 million 867 thousand people, dropping 1.5% (Donya-e-Eqtasad, 2017, 3). Iran ranked 93 among 140 countries in terms of tourism. Despite the high international index of abundance of cultural and natural attractions, the position of urban and rural tourism has not

changed in recent years (Boroomand et al., 2017: 106). Therefore, rural tourism requires comprehensive and appropriate planning in each region and geographical area, which is possible by identifying influential factors in developing rural tourism.

In this regard, the rural area of Rudbar Qasran is a highly suitable tourist area of the country, which hosts many domestic and foreign tourists every year, especially in winter. The geographical location, commuting roads, altitude levels, climatic conditions of the region, and the location on the slopes of the snowy peak make the villages of this region special. What distinguishes this region from other tourist regions is the ski resort. From the beginning of January to the end of May, Rudbar Qasran rural ski resort attracts skiers with its beautiful mountain views and unique nature. This resort is established 58 kilometers east of Tehran and is 3000 meters long. The resort is in Shemshak within Rudbar Qasran, Shemiranat, and Tehran districts. The first operation goes back to 1958 (1337 S.H) and later in 1978 (1357 S.H); after some modifications, the World Ski Federation introduced it as an international resort. Its facilities include two chairlifts, two surface lifts and two T-bar ski lifts to make the tourist destination more competitive. It also has yellow floodlights, making skiing possible until late at night. Accommodations include two-star hotels. Despite the competitive advantages, the rural areas have not had beneficial results. This goal can be realized when the effective factors in developing rural tourism in this area are identified and the effects are determined in the sustainability of local communities. Therefore, the present study aims to answer the following question:

What are the influential factors in the development of rural tourism? And to what extent do these factors affect the sustainability of the local communities of Rudbar Qasran Villages?

2. Literature Review

Ivanovic (2009) stated that sociology uses two approaches for communities. First, it considers society as a territorial concept, and second, communities as a relative concept. As a territorial concept, a community can be defined on a map. A community has a name, boundaries, signs, types of people, and known symbols. As a rational concept, community represents people connected by communication and friendship. The term community is usually defined as the inhabitants of a geographical area, in a local or political categorization, ethnicity, the resources or industry established in a region (Chaskin et al., 2001: 44; Mancini et al., 2003: 67). Local community

is essential for its members because of promoting their physical, social, mental and spiritual health (Mancini et al., 2003: 67). The operational definition of a community is a geographical area that has common conditions and identity which includes operational units for the delivery of goods and services (Chaskin et al., 2001: 44). A community also refers to a group of people who are related to each other. However, the most common definition of the local community is based on geographic location (Mahoney et al., 2007: 68). Veriti (2007) believes local communities can contain various aspects such as local communities as a place, physical location, workplace, suburb, neighborhood, political, geographic space or local communities as a social system, networks and connections, circles and interactions between people.

Finally, the sustainable development theory emphasizes social, economic, and physical change that affects the local community's cultural, social, ecological, and physical systems. Also, its successful realization depends on consistent political planning, management, monitoring, and social learning (Ris as cited in Gunn, 1994). In addition, political efficiency depends on the active participation of residents, which draws out the assistance of the government, social institutions, and well-managed communication of all stakeholders. Furthermore, the sustainability of local communities is included in other sustainability-related ideas, such as moral development, social reconstruction, the process of transformation towards a better future, protecting the quality of the environment (Avijit, 1998: 98; Overton, 1999: 3), empowerment, creation of new capacities, pay attention to local information and knowledge, increasing awareness and information (Dobie, 2004) freedom of choice and equality in access to opportunities (Axinn & Axinn, 1997: 196). In all these concepts, local communities are inconsistency with the core idea of meeting the needs of the present generation while considering the needs of future generations.

Therefore, after introducing the sustainable development theory in the 1970s, tourism development became

known as a possible and acceptable development in many underdevelopment regions. Tourism is also a strategy for suitable alternatives for implementing the requirements of sustainable development and environmental sustainability, society and economy, job creation, public and private investment, improvement of infrastructure, and economic benefits in different areas (T.G.Ko, James, 2001). The expansion of the tourism industry and the destructive effects on the environment and humans In different parts of the world during the 1990s highlighted the importance and necessity of sustainability factors in the tourism sector and fixed unsustainable factors (Mason & Der Borg, 2002). In this regard, scientific techniques and methods were also expanded to measure and evaluate progress toward sustainability in the tourism industry. Significant efforts were spent on improving scientific policies and sustainable development evaluation models (John & Salah Wahab, 2005). Sustainable development has thoroughly examined tourism to insert the assumptions of sustainability in tourism in a specific framework. The programs of this approach emphasize the integration of economic and cultural-social values, the integration of tourism planning with other trends, the protection of ecological processes, the protection of human heritage, biological changes, and learning (Hall & Page, 2001; Rodolfo Baggio, 2019). In this regard, tourism has a positive effect on the sustainability of local communities. Rural tourism development not only offers a potential solution for many problems in rural areas but also helps protect and improve the natural environment and existing infrastructure (Sharply, 2002). So it is referred to as a driver and tool for the sustainability of local rural communities (Gjorgievski & Nakovski, 2012). Figure 1 illustrates the conceptual model of the research.

Despite several studies, no study has been conducted to identify the effective factors in the development of tourism and its effects on the sustainability of local communities with a combination of qualitative and quantitative methods in Rudbar Qasran. In the following, we briefly mention background research on this topic.

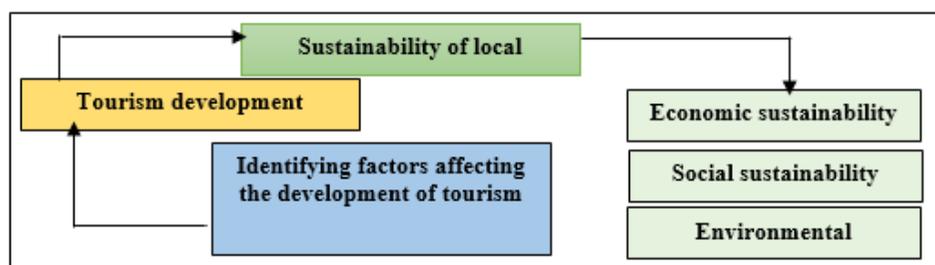


Figure 1. Conceptual framework of the study

Ahmadi (2018), in research about factors affecting the development of cultural tourism in Zanjan Province, concluded that cultural tourism affects the employment indicator the most, with a value of 0.776, and the lowest effect is related to the capital index, with a value of 0.089. Therefore, results showed that with the expansion of rural tourism, villagers' employment has increased and increased employment, income, production, and hence investment. Lotfi Aghel et al. (2018) investigated the role of social factors affecting tourism development in Hamadan, Iran. They found a significant correlation between the components of advertising, tourists' sense of security, the manner of handling and participation of the host community's interactions, and the satisfaction and attraction of tourists. Also, the highest correlation of tourists' satisfaction was with the participation and interactions of the host community (correlation value: 0.537). Also, the regression test and path analysis findings have shown that the social components can predict tourist satisfaction to 70%.

Anabestani & Masoumi (2021) analyzed factors affecting the lake tourism development in Iran in Fars Province. They concluded that the presence of attractions had the highest effect, with weights of 0.247 and 0.246, and the infrastructure, with weights of 0.229 and 0.234, in the AHP and ANP models, respectively, had the lowest effect on the development of lake tourism. Finally, they used the GRA technique and found that the villages of Dubneh and Dasht Arjan had better conditions than others. On the other hand, the villages of Qeshm Qavi and Arab Famur had the lowest level of lake tourism development. Taheri & Ahmadi (2021) investigated factors affecting the development and prosperity of urban tourism in Old Tehran, District 12 of Tehran Municipality. They concluded that the effective factors are grouped into six negative and two positive factors, which can explain 64% of the total variance of the dependent variable. The most effective negative factors are increased facilities and services in the surrounding areas and the lack of permission for facilities there, with a factor loading of 0.776. On the other hand, the lack of programs and the weakness of traditional culture, with a factor loading of 0.654, is the lowest ranking among the negative factors.

On the other hand, the location of the region and the desire to invest in the private sector, with a value of 0.706, and the historical capital of the region, with a value of 0.572, were identified as the highest and lowest positive factors. Finally, Amirmostofian et al. (2021) identified the effective factors of social networks on tourism branding in Iran. They listed these factors as tourist value, content sharing, tourist validation and criticism,

tourist trust, brand awareness, branding, advertising and marketing, tourist willingness, electronic services, company performance, organizational factors, competitive advantage, social responsibility, tourist participation, tourist attitude, service innovation, and tourist loyalty.

Naim Abadi & Javan (2021) analyzed tourism policy obstacles in the urban environments of Gilan Province. According to the grounded theory, the obstacles include lack of use of specialist forces, inappropriate marketing, imitating patterns incompatible with urban environments, problems in the tourism service supply chain, administrative system, and policy problems, and lack of integrated management of tourism-among related organizations, inappropriate infrastructure, lack of experts. Based on the Arras Fuzzy model, The obstacles are ranked from the highest to lowest as the lack of integrated tourism management among related organizations with a weight of 0.490, administrative system and policy problems with a weight of 0.488, imitation of patterns incompatible with urban environments with a weight of 0.477, problems in the tourism service supply chain and the lack of infrastructure and physical infrastructure with a weight of 0.467, inappropriate marketing with a weight of 0.463, lack of use of expert forces with a weight of 0.458. Chizari et al. (2022) explained the factors affecting agritourism development in the citrus gardens in the Coastal Provinces of the Caspian Sea. They concluded that the variables of participation in entrepreneurship courses, the amount of knowledge and skills in the development of agricultural tourism, the skill and entrepreneurial spirit of gardeners, and their attitude towards the diversification of agricultural activity could predict 66.7% of the changes were the dependent variable (acceptance of agritourism).

Jalilian et al. (2022) identified and analyzed the driving forces in developing the tourism industry in Kondoleh Village, Sahneh County. Among 28 key factors, competent management and transforming Kondoleh village into a tourism pilot village are the most influential factors. In addition to these factors, the following variables are increasing the amount of private sector investment, advertising, registration, and maintenance of historical and cultural monuments, and ensuring the security of tourists, respectively. In addition, Garau (2015) stated that factors affecting the success of tourism in rural areas include: Savings and investment, education of local people, access to social services, and incentive space for public sector investment. Awedyk & Niezgodą (2016) investigated new opportunities for future tourism development after 25 years of political and socioeconomic changes in Poland. They concluded that globalization,

climate change, and the elimination of organizational, institutional, economic, and social obstacles and problems are the most critical drivers affecting the future development of tourism in Poland. [Burke and Hughes \(2018\)](#) identified the most critical factors affecting rural tourism development. These factors were the possession of entrepreneurial skills, the knowledge, and skills needed to launch a tourism enterprise, and villagers' belief, opinion and positive attitude toward tourism development. [Konakoglu et al. \(2019\)](#) compared the sustainable development of tourism and Amasya in Turkey and Zakopane in Poland. They found that Amasya city was more sustainable than Zakopane. [Ovagrafova and Smailova \(2020\)](#) examined rural tourism as a resilience factor of rural development. They concluded that infrastructure, public and government support, support of local officials, the introduction of tourist destinations, and future planning are essential for tourism development.

3. Methodology

The research is a mixed-method study. The statistical population in this study consists of two groups. The first group is specialists and graduates in tourism and rural geography, targeted (until the results are saturated) 50 as a sample by available sampling. The second group is rural residents in Rudbar Qasran, 17419 individuals according to the 2016 census, and 375 were selected by random sampling and the Cochran formula.

The present study is divided into two major sections. The first part is extracting factors in rural tourism development with the grounded theory approach, a qualitative strategic approach ([Grout & Wang, 2012: 180](#)). Also, because the grounded theory is not inherently statistical and has a conceptual generalization, the study extracted the concepts of the first part. Then, it formed a table to prove

the relationship of the variables of each row by Kendall rank correlation coefficient (W) and finally provided the questionnaire. Given that there is no standard questionnaire, this study made a researcher-made questionnaire, and the validity and reliability should be tested.

In the second part, the sustainability of local communities is analyzed using SPSS software (Spearman correlation tests, regression, and path analysis). The research tool in this part is a questionnaire in dimensions (economic, social, and environmental), [Table 1](#). Experts and professors also evaluated the validity of the questionnaire's research, and the validity of the questionnaire was approved. Cronbach's alpha (SPSS software) was used for the reliability of the questionnaire. The amount of reliability for the economic dimension is 0.78, the social dimension 0.81, environmental dimension 0.77, which indicates acceptable reliability.

The northern areas of Tehran Province have long attracted Tehran's population. Rudbar Qasran is one of these areas, which has unique characteristics in terms of economic, cultural development, and geographical location. Rudbar Qasran is one of the Districts of Shemiranat County in Tehran province. Fasham is the center of the district and its only rural district named Rudbar Qasran, with 22 villages. The district is adjacent to Noor County from the north, Karaj County from the west, Damavand County from the east, and Tehran from the south. The coordination is expanded from 51 degrees and 24 minutes to 51 degrees 50 minutes east longitude and 35 degrees and 46 minutes to 36 degrees and 3 minutes north latitude. The climate of the rural area of Rudbar Qasran is a temperate mountainous with cold and snowy winters and temperate summers. The heights around the rural area of Rudbar Qasran until midsummer are covered with winter snow ([Figure 2](#)).

Table 1. Indicators and items of different sustainability dimensions

Dimensions	Indexes	Items
Economy	Employment and income	Female employment
		Increasing income from tourism business activities
		Income in the service sector
		Intermediaries and mediators' jobs of rural residents
		Productive permanent jobs for rural residents
		Reducing unemployment among rural youth
		Productivity and economic prosperity of rural areas
		Improving the business environment and entrepreneurship in rural areas
		Attracting capital and stimulating economic revitalization of rural areas

Table 1. Indicators and items of different sustainability dimensions

Dimensions	Indexes	Items
Social	Social capital	Social cohesion rural residents
		Citizen participation of rural residents
		Empowerment of rural residents
		Capacity building of rural residents
	Social Security	Training rural residents for tourism
		Improving the social interaction of rural residents with other rural areas
		Increasing social trust among rural residents
		Reducing crime in villages
Social status	Avoiding stigmatization and social exclusion in villages	
	Improving the social identity of rural residents	
Social Welfare	Sense of belonging to the village	
	Improving the quality of life in villages	
	Welfare services provided to villages by public organizations	
Environmental	Reduce pollution	Children’s education in villages
	Strengthening environmental awareness	Reducing visual and mental pollution
		Environmental health planning and management
		Supporting future generations
		Reducing the vulnerability of the environment

Source: Rahmani & Hadiani (2016), Badri et al. (2017), Latifi & Ghaempour (2016)

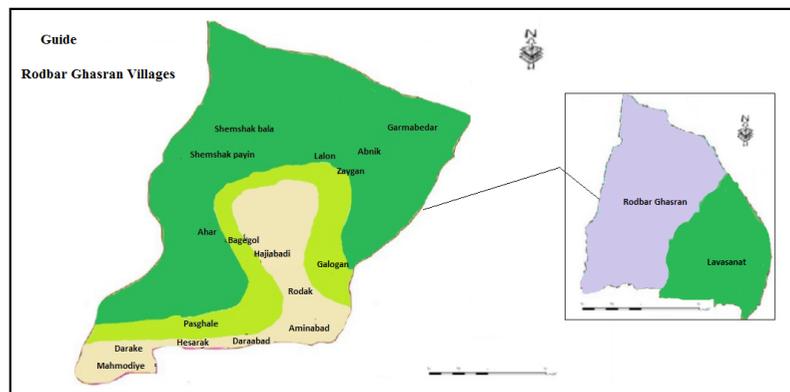


Figure 2. location of the study area



4. Findings

Identification of the total effective factors in the development of rural tourism in Rudbar Qasran

The required information has been extracted from the experts’ point of view to identify the set of effective factors in the development of rural tourism in Rudbar Qasran. The interviews (between 60 and 90 minutes) were recorded and immediately scripted to the conversations several times in a more detailed way. At first, in the reviewing stage, recorded interviews and personal notes taken during the interviews were collected, revised, and modified.

Next, in the semantic data extraction stage and open coding, we tried to understand the hidden concepts in the interviewee’s statements. Some concepts are named based on previous knowledge, and others are developed by the researcher or mentioned by the participants. In the next step, the primary codes were converted into secondary codes based on their frequency (primary codes are placed in similar categories). Several secondary codes become conceptual codes. Table 2 presents the results of open coding based on secondary code, conceptual codes, and categories.

Table 2. Axial coding after open coding

Row	Semantic unit	Phrase example	Row	Semantic unit	Phrase example
1	Strengthening public participation	People's participation in tourism-related decisions	6	Making teams of specialists and experts	Increasing specialized and trained labors in tourism in this region
		Rural participation in providing accommodation services to tourists			Building a team for expanding tourism capabilities and capacities in rural areas and providing the necessary solutions
		Participation of villagers in tourism-related activities			Strengthening tourism leaders and advisors in the region
2	Making the culture of villagers accept tourism benefits	Sufficient motivation among the villagers of the region to participate in tourism activities	7	Removing rigid laws and making appropriate laws	Compilation of codified rules and regulations regarding tourism in the region
		Institutionalization of hospitality and tourism culture			Eliminate rigid rules
		Planning programs for cultural improvement in line with the development of tourism	8	Funding the programs for public and private investment	Funding for the tourism sector from the government
		Formation of training workshops for tourists to familiarize themselves with cultural-religious characteristics in villages			Increasing the private sector investment
		Reducing the conflict between the culture of tourists and the people of the region			Increasing the amount of public sector investment
3	Good governance	Familiarizing the villagers of the region with the benefits and advantages of the tourism industry	9	Organizational cohesion	Coordination of rural organizations of Rudbar Qasran in line with the development of rural tourism
		Meritocracy in rural and tourism organizations			Increasing managerial stability among organizations related to tourism
		Efficiency and effectiveness of rural organizations			Using systemic thinking in organizations
4	Government support	Accountability of rural and tourism organizations	10	Improving branding and advertising	Strengthening tourism businesses in marketing and advertising
		Reducing administrative bureaucracy to speed up rural tourism projects			Strengthening the branding of Rudbar Qasran villages as a destination and a positive image for these villages
5	Infrastructure and facilities	Cooperation of village councillors and mayors in attracting and directing tourists as a semi-governmental organization	11	Designing a suitable model for tourism	Designing booklets for the introduction of attractions
		Creating suitable civil infrastructures, such as roads and routes in the region			Preventing the same modeling from other villages in Iran
		Strengthening facilities and amenities in the region			Development of a suitable model of tourism according to the villages of the region
		Increasing health facilities and services in the region			Paying attention to the strengths, weaknesses, opportunities, and threats of the villages

Source: Research Findings, 2022



According to the results obtained in Table 2, in general, 34 concepts were extracted from the interviews. These semantic units are: strengthening public participation, fostering the culture of accepting tourism benefits by the villagers, good governance, government support, infrastructure and facilities, organizational cohesion, building teams of specialists and experts, removing rigid laws and making appropriate laws, funding the programs for

public and private investment, improving branding and advertising, designing a suitable model for tourism.

As Table 3 shows, experts found these factors: integrated and coherent management in the village and tourism organizations, legal and financial factors, infrastructure, specialization, marketing, and avoiding inconsistent patterns.

Table 3. Main categories and themes

Row	Category	Semantic unit
1	Cultural factor	Strengthening public participation Making the culture of villagers accept tourism benefits
2	Integrated and coherent management in the village and tourism organizations	Good governance Organizational cohesion Government support
3	Legal and financial factors	Removing rigid laws and making appropriate laws Funding the programs for public and private investment
4	Infrastructure factor	Infrastructure and facilities
5	Specialization	Making teams of specialists and experts
6	Marketing	Improving branding and advertising
7	Avoiding inconsistent patterns	Designing a suitable model for tourism

Source: Research Findings, 2022

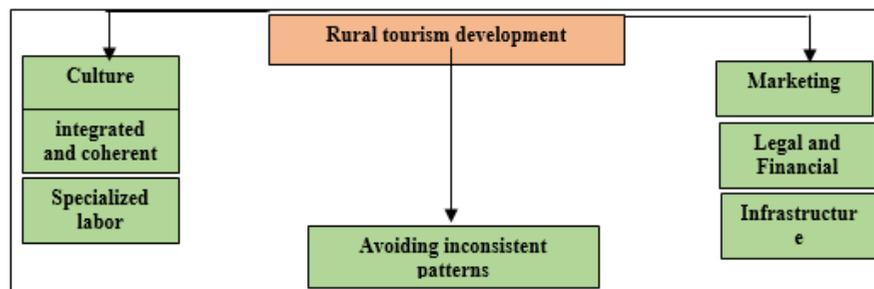


Figure 3. Model of the total influential factors in the development of rural tourism in Rudbar Qasran, Source: Research Findings, 2022



In the following, semantic units of each category were examined and checked using the questionnaires (a 5-point Likert scale). Each line was two by two checked to find the relationship between the categories and semantic units. Therefore, negative correlation results have been avoided because of our research goal to achieve positive correlations. Table 4 shows the calculation of correlation in more detail.

According to the results obtained in Table 4, a meaningful and positive relationship was observed between the proposed categories and semantic units with significant correlation coefficients. Therefore, the categories and semantic units are conceptually generalizable.

In the following, the Spearman correlation test analyzes the relationship between tourism development factors and the sustainability of local communities in dimensions (economic, social and environmental). Examining Pearson’s correlation coefficient values in Table 5 showed that there is a positive and significant relationship between all economic, social, and environmental sustainability dimensions as (dependent variable) and

influential factors in tourism development as (independent variable).

As Table 6 shows, based on the adjusted coefficient of determination, 95% of changes in the dependent variable (sustainability of local communities in Rudbar Qasran villages) are explained by influential factors in rural tourism development. Moreover, all seven factors remained in the regression equation after five consecutive steps. In other words, all the influential factors in rural tourism development significantly impact the stability of the local communities of Roudbar Qasran.

Standard beta coefficients, as shown in Table 7, indicate the importance and role of each influential factor in the development of rural tourism in predicting the dependent variable (sustainability of local communities). For example, among the independent criteria entered into the regression equation, the factor “integrated and coherent management in the village and tourism organizations” predicts the dependent variable (stability of local communities) more than other factors.

Table 4. Kendall rank correlation coefficient

Row	Category	Semantic unit	Correlation coefficient	Significance level
1	Cultural factor	Strengthening public participation	0.557	0.001
		Making the culture of villagers accept tourism benefits	0.598	0.001
2	Integrated and coherent management in the village and tourism organizations	Good governance	0.576	0.001
		Organizational cohesion	0.557	0.001
		Government support	0.511	0.001
3	Legal and financial factors	Removing rigid laws and making appropriate laws	0.576	0.001
		Funding the programs for public and private investment	0.611	0.001
4	Infrastructure factor	Infrastructure and facilities	0.556	0.001
5	Specialization	Making teams of specialists and experts	0.543	0.001
6	Marketing	Improving branding and advertising	0.533	0.001
7	Avoiding inconsistent patterns	Designing a suitable model for tourism	0.514	0.001

Source: Research Findings, 2022



Table 5. The relationship between the influential factors in tourism development and the sustainability of local communities

Dimensions	Items	Independent variable	Correlation coefficient	Significance level
Economy	Female employment	Effective factors in the development of rural tourism	0.554	0.001
	Increasing income from tourism business activities		0.564	0.001
	Income in the service sector		0.587	0.000
	Intermediaries and mediators' jobs of rural residents		0.556	0.001
	Productive permanent jobs for rural residents		0.561	0.001
	Reducing unemployment among rural youth		0.578	0.000
	Productivity and economic prosperity of rural areas		0.571	0.001
	Improving the business environment and entrepreneurship in rural areas		0.559	0.001
	Attracting capital and stimulating economic revitalization of rural areas		0.541	0.001
	Social		Social cohesion rural residents	0.547
Citizen participation of rural residents			0.550	0.001
Empowerment of rural residents			0.561	0.001
Capacity building of rural residents			0.571	0.001
Training rural residents for tourism			0.588	0.000
Improving the social interaction of rural residents with other rural areas			0.561	0.001
Increasing social trust among rural residents			0.573	0.001
Reducing crime in villages			0.588	0.000
Avoiding stigmatization and social exclusion in villages			0.600	0.000
Improving the social identity of rural residents			0.563	0.001
Environmental	Sense of belonging to the village		0.558	0.001
	Improving the quality of life in villages	0.589	0.001	
	Welfare services provided to villages by public organizations	0.588	0.001	
	Children's education in villages	0.531	0.001	
	Reducing visual and mental pollution	0.571	0.000	
	Environmental health planning and management	0.559	0.001	
	Supporting future generations	0.554	0.001	
	Reducing the vulnerability of the environment	0.587/	0.000	

Source: Research Findings, 2022



Table 6. Coefficients of factors in tourism development affecting the sustainability of local communities

The independent variable (factors of tourism development)	Multiple correlation coefficient (R)	Coefficient of determination (R ²)	The adjusted coefficient of determination (Adjusted R ²)
Culture	0.571	0.567	0.512
Integrated and coherent management in the village and tourism organizations	0.580	0.556	0.561
Legal and financial factors	0.592	0.612	0.617
Infrastructure	0.556	0.456	0.576
Using specialized labor	0.578	0.593	0.665
Marketing	0.598	0.611	0.587
Avoiding inconsistent patterns	0.556	0.591	0.603

Source: Research Findings, 2022



Table 7. Factors of the tourism development affecting the sustainability of local communities in Rudbar Qasran based on step-by-step regression analysis

The independent variable (factors of tourism development)	B	Std-Error	Beta	t	P
Culture	1.413	0.036	0.555	21.445	0.000
Integrated and coherent management in the village and tourism organizations	1.456	0.033	0.600	21.567	0.000
Legal and financial factors	1.412	0.035	0.554	21.446	0.000
Infrastructure	1.334	0.041	0.541	21.412	0.000
Using specialized labor	1.325	0.041	0.521	21.400	0.000
Marketing	1.225	0.044	0.511	21.398	0.000
Avoiding inconsistent patterns	1.334	0.041	0.541	21.412	0.000

Source: Research Findings, 2022



Table 8 shows the path analysis, which was used to identify the direct and indirect effects of the role of each of the effective factors in tourism development on the sustainability of local communities. The seven factors were used as important variables for sustainability to draw a structural causal model and explain the direct and indirect effects of each on the sustainability of local communities.

As Table 8 and Figures 3 and 4 show, among all factors, “integrated and coherent management in the village and tourism organizations,” with a value of 0.167, has the most direct effects on the stability of the local communities of Rudbar Qasran villages.

Table 8. The effects of tourism development factors on the sustainability of local communities

Row	Abbreviation	Components	Direct effects	Indirect effects	Sum of causal effects
1	X1	Culture	0.145	0.033	0.178
2	X2	Integrated and coherent management in the village and tourism organizations	0.167	0.036	0.203
3	X3	Legal and financial factors	0.144	0.032	0.177
4	X4	Infrastructure	0.121	0.025	0.146
5	X5	Using specialized labor	0.111	0.011	0.122
6	X6	Marketing	0.102	0.017	0.119
7	X7	Avoiding inconsistent patterns	0.121	0.025	0.146

Source: Research Findings, 2022



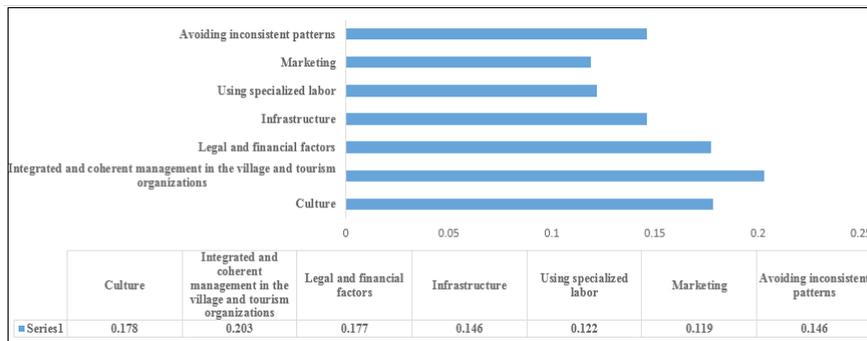


Figure 4. The extent of the effects factors on the sustainability of local communities in Rudbar Qasran villages, source: Research Findings, 2022

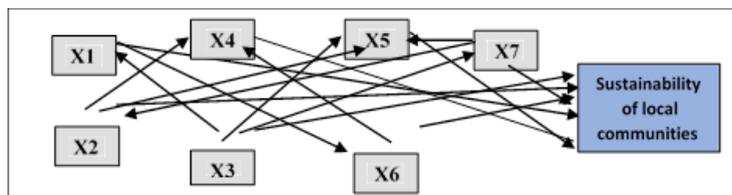


Figure 5. The effects of tourism development factors on the sustainability of local communities Source: Research Findings, 2022



5. Discussion

The present study has been conducted to analyze the influential factors in tourism development and their effects on the sustainability of local communities in the villages of Rudbar Qasran. After interviewing experts to identify the factors related to rural tourism development, we categorized them as culture, Integrated and coherent management in the village and tourism organizations, legal and financial, infrastructure, using specialized labor, marketing, and avoiding inconsistent patterns.

Rural management and tourism capacity are influential factors for rural tourism in Rudbar Qasran. Management is pivotal to rural and tourism organizations. Management as a systematic approach can include tourism dynamics emphasizing sustainability. In this respect, the defeat of tourism development projects is the lack of organizational cohesion and integrated management. These results are consistent with Naim Abadi & Javan (2021). Many studies also mention the legal and financial factors. The difficulties of bureaucratic laws cause impediments to tourism projects.

Also, the lack of government funds and investment in the private and public sectors declined tourism development in the villages of Rudbar Qasran. Therefore, from the viewpoint of experts, these factors can accelerate the development of rural tourism in the area.

The use of specialized labor is another important factor. Tourism is a type of service activity that requires specialized human resources. Therefore, the absence of specialized labor hinders tourism development in the villages of Rudbar Qasran. In the meantime, it is necessary to make educated specialized teams to identify the capacities and capabilities of the villages and provide the basis for developing tourism by presenting strategies and formulating programs. These results are consistent with Naim Abadi & Javan (2021) and Mohammadi et al. (2020).

Marketing and advertising are significant factors in an organization to achieve its goals. In this regard, booklets are designed to introduce attractions, which can be appropriate measures for Rudbar Qasran. This part of the study is compatible with Mahmoudi et al. (2022). avoiding irregular patterns is another effective factor in developing rural tourism in this region. Tourism development projects are usually copied from other villages in Iran, and there are no documented specific models for the villages of this region. Finally, culture was identified as an influential factor in tourism development. Institutionalizing hospitality and tourism culture create a positive attitude toward tourism in the village. Therefore, the programs for cultural training should be in the direction of tourism development. This finding agrees with Mohammadi et al. (2018). A meaningful and positive relationship was observed between the proposed categories and semantic units with significant correlation coefficients. Therefore, the categories and semantic units are conceptually generalizable.

In the quantitative part of the research, Spearman correlation and regression showed a significant and positive relationship between the factors proposed in rural tourism development and the sustainability (economic, social, and environmental dimensions) of local communities. Also, the regression results showed that among independent variables entered into the regression equation, the factor (integrated and coherent management in the village and tourism organizations) predicts positive changes in the dependent variable (sustainability of local communities) more than other factors. Among all factors, “integrated and coherent management in the village and tourism organizations,” with a value of 0.167, directly affects the stability of the local communities of Rudbar Qasran villages.

In fact, all the tourism development factors raised in this study can take a big step in the sustainability of local communities in Rudbar Qasran villages. These factors will improve the employment status and income of residents of local communities. If the service sector improves, public and private investments will provide welfare conditions for the residents of the villages. Alongside economic development, social development is also crucial, which brings about items such as Social solidarity, social cohesion, social trust, participation, and education progress. Furthermore, improving the two mentioned dimensions will support the environmental dimension (reducing visual and mental pollution, environmental health planning and management, supporting future generations, and reducing the environment’s vulnerability). Finally, in line with the results of the obtained results, we suggest the followings:

- Conducting fuzzy research on ranking each sustainability dimension (economic, social, and environmental), focusing on tourism development factors.
- Identifying the obstacles to tourism development in administrative, political, economic, and social aspects in the villages of Rodbar Qasran.
- Holding tourism courses in schools and rural-related organizations to introduce and support rural tourism and train specialized human resources in cooperation with universities and non-governmental organizations.

Acknowledgements

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of Interest

The authors declared no conflicts of interest.

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