



On the Effects of Tourism Development on Rural Areas (A Case Study of Giayn District, Nahvand County)

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Abstract

Tourism plays a significant role in the development of the society at different levels and is seen as an important source of employment and income especially in rural areas. Considering its different potential impacts, the present study aims to explore the effects of tourism development on the rural area of Giyan district. The target population comprised the residents of rural areas in the vicinity of Giyan tourism district (N=7500). Using the Cochran's formula, the sample size was estimated to be 285, and a completely random sampling method was applied for data collection. A self-administered questionnaire was used as research instrument whose face validity was confirmed by a panel of experts. In order to estimate the reliability of the questionnaire, a Cronbach's alpha was used for the pre-test. The reliability and validity of the factor analysis were estimated by Composite Reliability (CR) and Average Variance Extracted (AVE) for study components, respectively. In addition to the descriptive analysis, an Explanatory Factor Analysis and a Confirmatory Factor Analysis (CFA) were employed to classify research variables. It was found that from the residents' viewpoint, the major effects of tourism include 'improved job opportunities', 'increased income' and 'decreased number of agricultural sector employees'. The results of factor analysis revealed that economic, socio-cultural, and environmental factors account for 63% of the total variance. The results of the confirmatory factor analysis showed that all the employed indices were acceptable to fit the model. Moreover, it was shown that the economic factor, with a coefficient of 0.93, had the highest share in explaining the latent variable of the effects of tourism development.

Keywords:

giyan district, rural tourism, tourism, tourism effects

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INTRODUCTION

A large number of societies all around the world have gone through radical changes over the previous decade. Primary industries that societies rely on have been suffering from the economic problems. Therefore, people have started to seek for alternative development strategies (Andereck & Vogt, 2000). Tourism has attracted a great deal of attention as an alternative in recent years and is currently considered a means of economic growth and development (Azimi & Hajipour, 2008; Dritsakis, 2004; Dyer et al., 2007; Gursoy & Rutherford, 2004). Recently, it has had an increasing growth. Developing countries, as well as developed countries, have taken advantage of this industry as an abundant source of income (Ghobadi & Shah Verdian, 2016). Iran is one of the biggest hosts of cultural, natural, and historical resources throughout the world. Therefore, it has been ranked among the leading potentials for various types of tourism (Azimi & Hajipour, 2008). Unfortunately, Iran accounts for a trivial percentage of the tourism industry, despite its valuable historical legacy, wildling, and a multitude of natural rural areas, and this means it only accounts for less than 1.5 million inbound tourists and its share in industrial incomes is as low as 0.4% (Heydari-Sareban, 2015). Findings revealed that Iran's percent share of tourism contribution to GDP in the years 2003-2014 was very low and that it has changed disproportionately over this period (Azimi & Avetisyan, 2017).

Moreover, rural residents are mostly abandoning the villages to urban areas due to the lack of basic living supplies (Yousefi, 2016). However, developing and promoting tourism in rural areas and exploiting natural and cultural tourist attractions have recently attracted attention in Iran. They have also been employed in some rural areas with positive outcomes, such as utilizing various cultural and natural tourist attractions of rural areas as a source of income for the inhabitants. At the same time, these strategies have contributed to the protection of such unique attractions in rural areas (Taghdisi et al., 2015). Research has shown that tourism industry in Iran can potentially create jobs for

2.5 million people. It also accounts for 3% of Gross Domestic Product (GDP), which is significant when compared to other major economic sectors (Azimi & Hajipour, 2008). It is worth noting that rural society accounts for a high percentage of agricultural products, thereby playing a major role in the economy. Around 28% of total Iranian population (80 million people) lives in rural areas. Iranian rural community is estimated to account for 17% of GDP and 22% of the employment rate (Statistical Center of Iran, 2012). Generally speaking, the economies of Iranian rural areas rely on agricultural and livestock products. However, a need is felt for an alternative or complementary strategy to increase economic efficiency in rural areas (Heydari-Sareban, 2015).

Compared to other economic activities in rural areas, rural tourism development is a recent one (Dyer et al., 2007; Gursoy & Rutherford, 2004; Rahmani et al., 2016). Therefore, an evaluation of its effects can serve as an essential step in identifying the barriers and driving factors in this profitable industry. Furthermore, rural tourism in Iran deserves special attention since the rural population has declined and there is a high rate of immigration to urban areas. Therefore, plans need to be designed to improve conditions in rural areas, especially the villages with tourist attractions (Azimi & Avetisyan, 2016; Ghobadi & Shah Verdian, 2016). As Azimi and Avetisyan (2017) mentioned, rural tourism in Iran is faced with challenges such as lack of tourism plans and policies aimed at rural tourism development, weak cooperation of the government, private sector and local people in planning and managing the tourism and rural tourism projects, frequent changes in the authorities of cultural heritage, handicraft and tourism organization, lack of correct criteria for choosing managers and executive directors, and the effects of the sanctions on tourism programs. Furthermore, political factors were found to be important with respect to their effect on the situation of tourism economics in Iran.

As mentioned earlier, tourism is considered to be a strategy for the development with both positive and negative impacts (Gursoy & Ruther-

ford, 2004; Haley et al., 2005). Tourism is a kind of service and is structural in nature. These make it complicated to evaluate its impacts (Azimi & Hajipour, 2008). However, extensive research has been carried out to evaluate its positive and negative environmental, socio-cultural, and economic impacts. The results of such studies, sometimes, seem contradictory. While some studies report that tourism has negative effects on the residents, the others have pointed out the positive effects of rural tourism (Dyer et al., 2007; Gursoy & Rutherford, 2004). Bouchon and Rawat (2016), for instance, report the socio-economic development of rural areas due to tourism. Moreover, Rahmani et al. (2016) listed the effects as, among all, the improvement of employment, income, and life quality and the enhancement of the investments. Haley et al. (2005) also referred to the improvement of local infrastructures, job opportunities, and an increase in the number of entertainment means. Lepp (2007) reported an improvement in the marketing of agricultural products, generating revenues, and local development as the outcomes. Brown (2006) declared an improvement in life quality (as a result of the improvement in the quality of services) and the strengthening of rural and historical culture. Tchetchik et al. (2006) pointed out job creation and increased income as the positive effects. Dyer et al. (2007) directed attention to the improvement of road construction standards, increased demand for local handicrafts, improvement of inhabitants' social identity, exchange of ideas, and increased awareness concerning the region in question as the positive

consequences. Hashempoor (2006) pointed out the alleviation of poverty and immigration, social welfare improvement, preservation of traditions and conventions, and maintenance of the cultural and natural resources as well as the traditional environment as the outcomes.

By comparison, some researchers warn about the negative impacts of rural tourism. For instance, Rahmani et al. (2016) referred to the increased environmental erosion, crime, and inflation. Moreover, Pickering et al. (2003) directed attention to water pollution, negative effects on wildlife, and air pollution as negative outcomes. Environmental concerns are raised by Bestart and Nadel (2007). Furthermore, the emergence of social and cultural conflicts due to the cultural differences between hosts and guests has also been mentioned (Dyer et al., 2007; Gursoy & Rutherford, 2004; Tosun, 2000). A decrease in agricultural sector employees, season-limited income, and the decrease in agricultural products constitute some other adverse impacts (Tchetchik et al., 2006; Ozkok et al., 2007).

Finally, the fact that rural tourism development has extensive positive as well as negative effects on the host community should be acknowledged (Dyer et al., 2007). Therefore, this paper aimed at studying the effects of tourism development in the Giyan District of Nahavand County.

MATERIAL AND METHODS

The research area

The research area is Giyan tourist district (Lat. 34°10'48"-34°10'16" N., Long. 48°14'32"-48°14'53" E.) in Nahavand County located in



Figure 1. Location of the studied area on the map of Iran.

Hamadan Province, Iran. Its distance from Nahavand County is 16 kilometers (Figure 1). It has permanent rivers and a forest with a land area of 1300 hectares. The area enjoys a desirable plant and animal biodiversity. Since Giyan district hosts natural attractions and appropriate infrastructures, such as roads, drinking water, restrooms, and so forth, many visitors from nearby cities and even provinces are attracted to this district (Jaefari et al., 2014). Some populated villages are located in the vicinity of this area whose inhabitants make money by providing services to the visitors. In other words, tourism is ranked the second after agriculture in terms of generating income for the inhabitants of this area (Jorabi & Rahmani, 2013).

Research design, population and statistical sample

Data collection in this study was carried out using a survey. The present work is a non-experimental study with respect to the extent of control. The target population consisted of the residents of the villages in the vicinity of Giyan tourist district (7500 people), Nahavand County, Hamadan Province, Iran. In order to identify the effects of tourism development, through personal experience and a systematic review of resources, 28 items were developed and a self-administered questionnaire was used as research instrument whose face validity was confirmed by a panel of experts. Firstly, the questionnaire was pilot tested among villagers; few revisions were made in the questionnaire on the basis of their recommendations. Using the Cochran's formula and according to the standard division of the pilot test, a sample size of 285 was estimated and completely random sampling method was employed for the purpose for data collection. Further, a total of 450 questionnaires were distributed in Giyan tourist district using group administration approach for on-the-spot completion of the survey. Group-administered questionnaires allow for rapid data collection and a high turnaround rate (Adler & Clark, 2006). A total of 314 questionnaires were returned representing a high return rate (i.e. 69.8%). In the end, 285 usable responses were considered, eliminating the incomplete responses and extreme

outliers. On the other hands, Kline (2011) suggested that there should be at least 10 cases per parameter. Therefore, a sample size of 285 sufficed the research as study comprised 28 items.

Reliability and validity

In order to evaluate reliability of questionnaire, Cronbach's alpha for the pre-test of the effects of tourism development was estimated to be 0.81, which reflects the adequate reliability of the instrument. Moreover, the reliability and validity of the study model in factor analysis was found to be acceptable by estimating Composite Reliability (CR) and Average Variance Extracted (AVE) for the study components. Applications SPSS 18 and LISREL 8.5 were used for data analysis.

RESULTS AND DISCUSSION

Demographic characteristics

The average age of the respondents was 35.2 years. The whole sample was comprised of roughly 89% men and 11% women. Moreover, 27% of the respondents were single, while around 73% were married. Farmers accounted for 50% of the sample. With respect to the level of education, 88% had only graduated from high school or held lower degrees. Yet, 8% of the sample had B.A. and only 4% had an M.A./M.Sc. or a Ph.D. degree. The sample composed 93% native inhabitants, while 7% were non-native. Among the participants, 25% reported that their jobs did not rely on tourism in any way. On the other hand, 35% reported that the extent to which their jobs relied on tourism was "very low" or "low," while 40% reported that their jobs had a "high" or "very high" reliance on tourism.

Prioritization of items

In order to prioritize the effect of tourism development on Giyan district, the coefficient of variation was employed. As shown by the results, "improving job opportunities due to tourism development", "increasing rural inhabitant incomes" and "decreasing the number of agricultural sector employees" were ranked the highest in terms of priority, respectively.

Table 1
The Effects of Tourism on Residents in Priority Order

Priority	Item	Mean* (of 5)	SD	C.V
1	Improving job opportunities due to tourism development	3.83	0.73	0.191
2	Increasing rural residents incomes	4.12	0.88	0.214
3	Decreasing the number of agricultural sector employees	3.31	0.72	0.218
4	Increasing waste production and releasing it in nature	3.24	0.72	0.222
5	The disappearance of local customs and traditions	4.02	0.92	0.229
6	Tourists conflict with villagers	3.37	0.78	0.231
7	The villagers feel discomfort by the presence of tourists	3.36	0.78	0.232
8	Seasonality of income and jobs	3.64	0.89	0.245
9	Increasing gap between villagers	3.00	0.76	0.253
10	Reducing land under agricultural cultivation	3.48	0.89	0.256
11	Diversity in cultural activities	3.70	0.98	0.265
12	Increasing the incentive to stay in rural areas	3.10	0.83	0.268
13	Improving the services provided by restaurants, stores, and hotels	3.53	0.96	0.272
14	Population growth and construction in rural areas	3.57	0.98	0.275
15	Rising living standards for rural resident	4.02	1.13	0.281
16	Rising cost of land in rural areas	3.86	1.11	0.288
17	Improving infrastructure in rural areas	3.05	0.88	0.289
18	Enhancing the quality of public services resulting from investments	2.95	0.88	0.298
19	Creating more resources for organizations and non-local people	3.63	1.09	0.300
20	Water and soil pollution in rural areas	3.20	1.00	0.304
21	Lack of coordination among created buildings with the natural environment	3.40	1.08	0.318
22	Destroying vegetation and animal species	3.63	1.16	0.320
23	The negative impact on natural resources	3.38	1.11	0.327
24	Increasing prices of goods and services	3.23	1.20	0.361
25	Improving public and private attention towards tourism	3.47	1.35	0.389
26	Unfair distribution of profits derived from tourism	2.85	1.16	0.407
27	Destruction of the natural landscape of the village due to the increased construction	2.50	1.09	0.436
28	Increasing recreational facilities	2.44	1.20	0.492

Explanatory factor analysis

Explanatory factor analysis was employed to classify research variables into factors and determine their shares. Finally, a number of 28 variables were analyzed. In accordance with the findings of factor analysis of “the effects of tourism development on Giyan district”, KMO was estimated to be 0.72. Furthermore, its Bartlett index was estimated to be 1450.8 and significant at the 0.01 level. It reflects the fact that the variables employed in factor analysis have an appropriate internal correlation. To cat-

egorize variables into factors, eigenvalue more than 2 was the basis for extraction factors. Extracted factors along with their eigenvalue, percent variance, and cumulative percent variance are given in Table (2).

Having taken into account the findings of the study as well as significant statements, the researchers designated several factors as are shown in Table 3. Accordingly, the first ranked factor (economical factor) in terms of importance accounts for 33.78% of the total variance with an eigenvalue of 8.19. The second factor (socio-

Table 2
The Derived Factors and Eigenvalue, Percent of Eigenvalue’s Variance, and Cumulative Percentage

Factors	Eigenvalues	Eigenvalue’s variance%	Cumulative percent
Economical	8.19	33.77	33.77
Socio-cultural	4.34	18.38	52.15
Environmental	2.28	11.14	63.29

cultural factor) accounts for 18.38% of the total variance with a specific value of 4.34. The specific value of the third factor (environmental factor) is 2.28 and captured 11.14% of total variance. Taking everything into account, these three factors explained 63.29% of the total variance, which reflects their significance. The position of variables (roughly 28 main variables) in the factors was based on the assumption that variables with factor loadings greater than 0.5 are extracted. In addition, the varimax rotation procedure was applied to simplify the interpretation of the calculated factors

Confirmatory factor analysis

In order to study the contribution of every factor to the effects of tourism on Giyan District, Nahavand County, from the viewpoints of residents, a Confirmatory Factor Analysis (CFA) method was applied. The model was designed

by the LISREL 8.5 Software. Various statistics and indices have been proposed for the evaluation of model fitness. Since each index reflects only one aspect of model fitness (Kalantari, 2009), a number of indices are used together to evaluate the fitness of a model. Kline (2011) suggests these statistics and indices for evaluating fitness: Chi-squared test (χ^2), the Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), and the Standardized Root Mean Square Residual (SRMR). Sun (2005), on the other hand, recommends these indices: The Root Mean Square Error of Approximation (RMSEA), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and the Standardized Root Mean Square Residual (SRMR). In this study, except for χ^2 which is too sensitive to sample size and deviation from multivariate normality (Joreskog and Sorbom, 2001), all other recommended indices (Kline, 2011; Sun, 2005)

Table 3
Items Related To Extracted Factors and Coefficients of Rotated Matrix

Factors	Item	Factor Loading
Economic Factor	Improving job opportunities due to tourism development	0.774
	Increasing rural incomes	0.722
	Increasing prices of goods and services	0.758
	Unfair distribution of profits from tourism	0.694
	Rising cost of land in rural areas	0.679
	Enhancing the quality of public services resulting from investments	0.671
	Improving infrastructure in rural areas	0.660
	Seasonality of income and jobs	0.552
	Population growth and construction in rural areas	0.544
	Decreasing the number of agricultural sector employees	0.521
Socio-cultural Factor	The disappearance of local customs and traditions	0.728
	Tourists conflict with villagers	0.777
	Increased recreational facilities	0.770
	Creating more resources for organizations and non-local people	0.767
	Diversity in cultural activities	0.662
	The villagers discomfort by the presence of tourists	0.657
	Improving the services provided by restaurants, stores, and hotels	0.651
	Increasing gap between villagers	0.551
	Increasing the incentive to stay in rural areas	0.547
	Reducing land under agricultural cultivation	0.534
Environmental factor	Rising living standards for rural resident	0.519
	Improving public and private attention towards tourism	0.509
	Increasing waste production and releasing it in nature	0.739
	Water and soil pollution in rural areas	0.675
	Destruction of the natural landscape due to increased construction	0.652
	The negative impact on natural resources	0.625
	Destroying vegetation and animal species	0.612
Lack of coordination among created buildings with the natural environment	0.572	

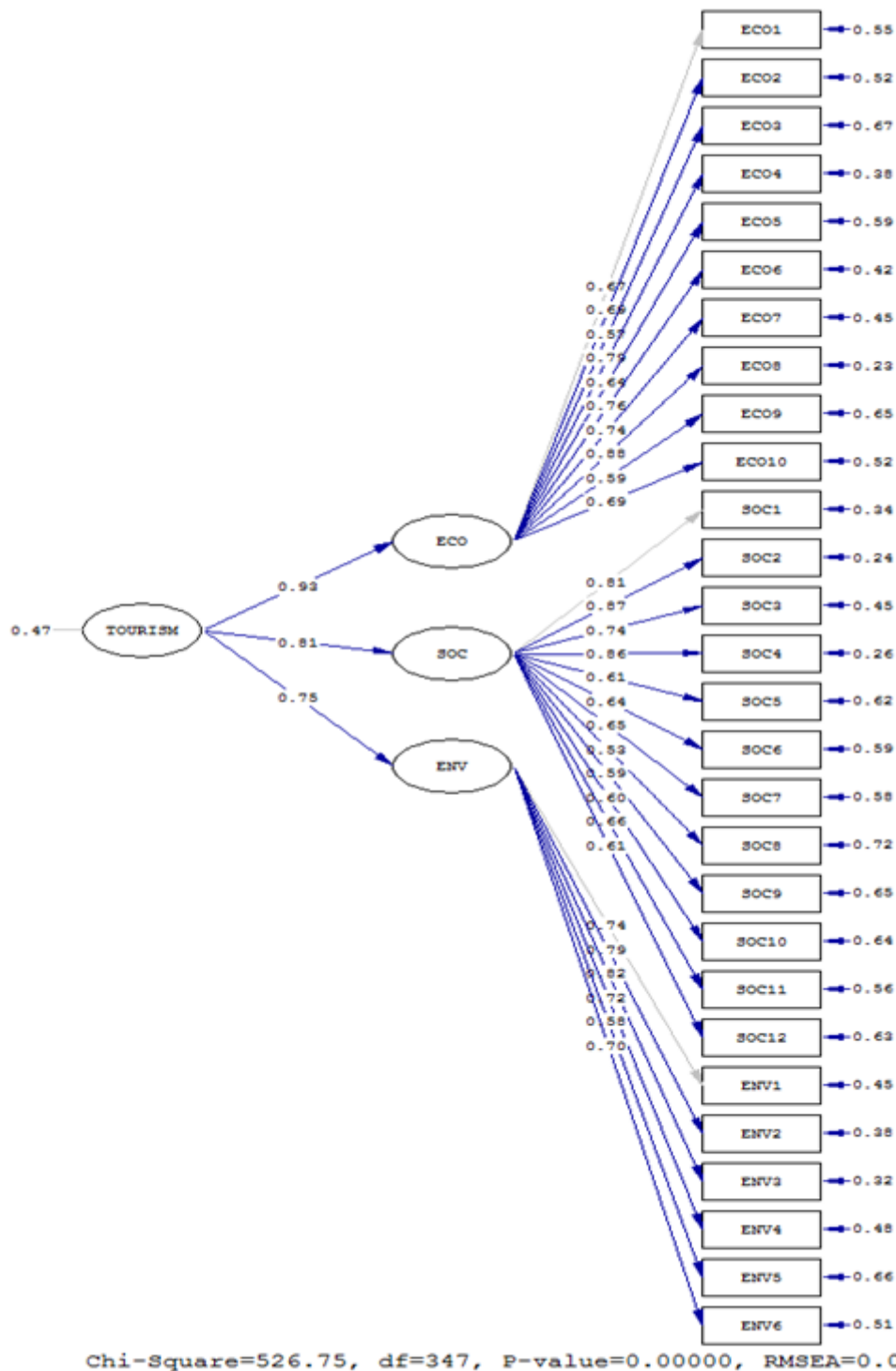


Figure 2. Second order confirmatory factor analysis of the effects of tourism development in the rural area of Giyan tourist district

were used. As shown in Table 4, estimated fit indices reflect the fitness of the model in question to the observed data. Chi-squared index with the degree of freedom 1.51 and quantities t (significant at 1%) suggests that the indices in question are favorable. The closer the values of Goodness of Fit Index (GFI=0.93) and the Adjusted Goodness of Fit Index (AGFI=0.90) to

unity, the more fit the model is (Hooman, 2012). This proved to be true for the model used in this study. Moreover, the value of RMSEA, which is an index for estimating average residuals, is 0.043 and it was confirmed, too. The smaller index, showed the better fitness of the model (Kalantari, 2009).

As shown in Table 4, the fitted model of tourism

Table 4
Fit Indices and Their Acceptable Thresholds and the Result of Research Model Fitness

Fit indices	Acceptable Thresholds	Reported values	Result
Relative χ^2 (χ^2/df)	Values equal or less than 3	1.51	Acceptable
Root Mean Square Error of Approximation (RMSEA)	Values equal or less than 0.08	0.043	good fit
Standardized Root Mean Square Residual (SRMR)	Values equal or greater than 0.90	0.92	very good fit
Comparative Fit Index (CFI)	Values equal or greater than 0.90	0.96	very good fit
Normed-fit index (NFI)	Values equal or greater than 0.90	0.91	very good fit
Non-normed fit Index (NNFI)	Values greater than 0.95	0.94	very good fit
Goodness of Fit Index (GFI)	Values equal or greater than 0.90	0.93	very good fit
Adjusted Goodness of Fit Index (AGFI)	Values equal or greater than 0.90	0.90	very good fit

Table 5
The Result of Confirmatory Factor Analysis

Latent Variables	Symbols in the model	Standardized Factor Loading	t- value	AVE	Composite reliability (CR)	Cronbach Alpha (CA)
Economic impact	ECO1	0.67	-	0.501	0.908	0.884
	ECO2	0.69	5.43			
	ECO3	0.57	4.87			
	ECO4	0.79	7.12			
	ECO5	0.64	5.40			
	ECO6	0.76	7.21			
	ECO7	0.74	7.44			
	ECO8	0.88	8.01			
	ECO9	0.59	5.34			
	ECO10	0.69	6.34			
Socio-cultural impact	SOC1	0.81	-	0.503	0.916	0.892
	SOC2	0.87	7.98			
	SOC3	0.74	6.87			
	SOC4	0.86	8.03			
	SOC5	0.61	5.98			
	SOC6	0.64	6.09			
	SOC7	0.65	6.20			
	SOC8	0.53	5.11			
	SOC9	0.59	5.76			
	SOC10	0.60	5.86			
	SOC11	0.66	6.19			
	SOC12	0.61	5.81			
Environmental impact	ENV1	0.74	-	0.531	0.871	0.856
	ENV2	0.79	9.15			
	ENV3	0.82	10.04			
	ENV4	0.72	8.98			
	ENV5	0.58	7.54			
	ENV6	0.70	8.31			

effects reflects the fact that the standardized factor loadings of statements had good construct validity. Furthermore, values for significance coefficients show that all t values are greater than 1.96 for all the variables in question. Therefore,

the correlation between these variables and corresponding factors is statistically significant.

The values estimated for Construct Reliability (CR) that were given in Table 5 show that construct reliability for all latent variables (constructs)

is greater than 0.6. Therefore, the results from the evaluation of the second-order model for the challenges of climate change adaptation show desirable evidence for the reliability of indices for operating latent variables. The results of second-order confirmatory factor analysis, which are based on the structural equations of the effects of tourism, show that the most crucial factors included in the construct were “decreasing the number of agricultural sector employees” in the category of economic effects, “increasing the motivation to stay in village” in the category of socio-cultural effects, and “increasing producing waste and its disposal in nature” in the category of environmental effects with factor loadings of 0.88, 0.86, and 0.82, respectively.

Therefore, it can be contended that in the order of importance, economic, socio-cultural, and environmental factors contribute to the formation of the latent variable “the effects of tourism development” in Giyan resort, Nahavand County. Confirmatory factor analysis shows that the economic factor, with a gamma coefficient of 0.93, has the highest contribution to tourism development. It is followed by socio-cultural and environmental factors with coefficients values of 0.81 and 0.75 (Figure 2).

CONCLUSION

This research examined the effects of tourism development on the rural area of Giyan district. Analyzing the effects of tourism development based on the host society is a decisive factor which should be highly considered in planning. It is due to the fact that their inclusion in designing, implementing, and evaluating programs leads to the improvement of tourism development (Haley et al., 2005). Therefore, this study, which aimed at analyzing the effects of tourism development in the rural area of Giyan, suggests that tourism development effects can be divided into three categories: economic, socio-cultural, and environmental factors. Furthermore, one of the beneficial achievements of this study is a series of fitted measures that can be used in further studies for evaluating the effects of rural tourism development.

The tourism development broadly refers to

the gradual evolution of the tourism industry, which is considered to be an important factor in the productivity of a national economy. The results is in line with those of Dritsakis's (2004) experiment that showed that the positive effects of tourism with respect to economy include improved job opportunities, increased incomes for rural inhabitants, the improvement of infrastructures, and the improvement of service quality due to investments. On the other hand, consequences include increased product and service rates, season-limited income, and a decrease in the number of agricultural sector employees.

As mentioned earlier, tourism can cause extensive socio-cultural changes in the host village. In fact, it can improve social progress, welfare, and public health through the distribution of income, job creation, and decreasing poverty. Some positive socio-cultural effects of tourism development in rural areas include the formation of cultural diversity, improvement of service quality, raising living standards, an increase in the motivation to stay in village, and a decrease in immigration rate. On the other hand, negative socio-cultural effects include the destruction of local conventions, the deepening of class differences, and the discrepancy and conflict between the culture of the hosts and that of the guests. This is in agreement with Gartner's (1996) study, based on which, it was argued that the negative socio-cultural effects of tourism include changes in religious values of the host and increased rates of crime. The environmental aspect of tourism is one of the highly anticipated aspects of tourism development. With the introduction of sustainable development theories, environmental issues have gained importance as the core of plans. If tourism development and its planning in rural areas are carried out with a little caution, consequences including water, air, and soil pollution, increased waste production and its disposal in nature, destruction of natural resorts, and even the abolition of vegetation and local animals will be aggravated.

Finally, it should be noted that domestic investments should be supported and encouraged by the people of rural areas so that all the inhabitants in host areas benefit from tourism.

Creating sustainable income by taking advantage of tourist attractions in all seasons, the problem of season-limited income can be resolved. Providing necessary training to raise the awareness of rural inhabitants concerning rural tourism improves their attitude towards tourism and encourages them to design plans to benefit from this industry. This provides grounds for all rural inhabitants to be able to benefit from higher employment and the services provided. Furthermore, according to Giannakis (2014), the link between tourism economy and other rural economic sectors, such as agriculture, food industry, and transportation facilitates employing the benefits gained from tourism in those areas. This leads to further development of the rural areas.

The important issue that should be taken into account in tourism development in Giyan district is environmental concerns. In order to enjoy tourism development as much as possible, while minimizing corresponding environmental damages, the capacity of the district for accepting visitors should be taken into consideration. Moreover, protective resources or artificial reservoirs need to be constructed for this purpose. Furthermore, native people should be encouraged to engage in devising environmental policies. Needless to say, organizational forces need to be employed and regulations need to be passed to prevent environmental pollution. Finally, steps are to be taken to raise tourists' awareness regarding the maintenance of environmental and natural resources.

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