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Original Article

An Evaluation of Paddy Field Consolidation Project with a Sustainable Livelihood Approach to Rural Households (Case Study: Choobar Rural District, Shaft County)

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Abstract

Purpose- Among the most important challenges in the agricultural sector are the lack of optimal use of production factors, the multiplicity of parcels, and the dispersion of agricultural lands. Land consolidation is one of the effective solutions which can change the size of fields and organize them to increase production, especially in paddy fields, which facilities agricultural development and ultimately achieves a sustainable livelihood in rural areas. The purpose of this study is to evaluate the success rate of the paddy field consolidation project through the study of a group of farmers who are included in the land consolidation project.

Design/Method/Approach- The population of the study consisted of 285 farmers from 11 villages of Choobar rural district in Shaft County who have been selected by regular sampling method. To collect the data, library and survey methods (observation and questionnaires) have been used. Cronbach's alpha was used to measure the reliability of the research tools, and in the analytical part, a single-sample t-test was used to evaluate the success rate of the project in Choobar rural district; To investigate the relationship between land consolidation project and improvement in economic indicators of rural households, initially, Spearman correlation coefficient was used, then simple regression test and coefficient of determination R2 were used to measure the effectiveness of the project on economic indicators.

Finding- The research findings on the level of economic and social dimensions and the assessment of the success rate of the project in the Choobar rural district showed the project was moderate to highly successful in the study area. The effects of the project in improving the socio-economic indicators of rural households in Choobar rural district are such that the highest correlations were found between the project and economic indicators in the use of machinery, land infrastructure, productivity, household employment, ease of access to machinery and manpower, income, and investment; At the level of social indicators, the highest correlations were respectively found in interpersonal and generalized trust, objective participation, sense of physical security, insurance services, formal participation, conflict reduction, and institutional trust. From farmers' perspective, among the socio-economic indicators, the infrastructure indicator which is created by the government and the use of machinery after the implementation of the project, and the ease of access to machinery and manpower, interpersonal and generalized trust have had the greatest impact on the implementation of the project.

Keywords: Sustainable rural economy, Sustainable livelihood, Land consolidation, Choobar rural district, Shaft county.

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1. Introduction

Land dispersion and its impediments to development that arose from land reform have encouraged experts in fields related to agricultural and rural development after World War II, and more specifically from the 1960s onwards, to focus their theoretical research on the spatial structure and agricultural change, organization of agricultural lands, especially the patterns of family exploitation (peasants), its size, distribution, structure and efficiency (Roknoddin Eftekhari, 2003); particularly the consolidation of agricultural lands. Land consolidation dates back to the 1550s in the Republic of Germany, followed by countries such as Poland, Czechoslovakia, Japan, the Netherlands, and Spain. Today, in different countries agricultural lands are consolidated to increase production, efficiency and improve crop sustainability, as land consolidation is an effective tool in sustainable rural development plans (Sayilan, 2014, as cited in Tajeri Moghaddam et al., 2016). It facilitates making plans for improving the income conditions of the villagers by addressing several key factors and indicators, including economic indicators such as lowering the costs and increasing the job opportunities through more production, non-agricultural activities, increased access to market and credit. In terms of social dimensions, variables such as social interactions of individuals, ownership, literacy, and technical knowledge improve the implementation of the project by creating employment opportunities, higher participation, access to health services, education, etc. (FAO, 2003). Although, inland consolidation, small and fragmented agricultural plots are merged, at the same time the mechanization and promotion of management become possible, due to unresolved acute social problems caused by legal matters of the consolidation project, unfortunately, this important goal has not been achieved. Among the social problems that we face in the implementation of the project is farmers' lack of awareness about this project and its positive effects, and the next problem is the ethnic and tribal conflicts that exist in rural areas (Bouzarjomehri & Anzaei, 2012). Therefore, any policy-making in agriculture without taking into account the role of farmers will not produce the expected results, because the farmers as the final decision-makers to apply new agricultural methods and improve their performance, are facing flows of innovation and acceptance. To empower the audience of development projects, training should be seen as one of the most basic factors in achieving development goals. In Iran, the same as other developing countries, agriculture is one of the most important economic sectors, which has highlighted the issues of sustainable development in the agricultural sector (Ashrafi et al., 2014). In recent decades, one of the most important issues in the agricultural sector of Iran has been the dispersion and fragmentation of land parcels. In addition to the dispersion of the Iranian villages, agricultural lands are divided into small and distant parts. Each farmer in Iran on average has seven land parcels that sometimes the distance between two land parcels of a farmer reaches several kilometers (Tajeri Moghaddam et al., 2016). Therefore, land consolidation has often meant removing the boundaries between agricultural lands, grouping fragmented parcels, and redistributing lands by increasing the size of the parcels while respecting the rights of the owners (Rezaie Moghadam et al., 2014). Therefore, in the long-term Development Plan of Iran (Development Horizon 1404), the following goals are predicted: higher productivity of production factors, reduction of production costs and waste of resources, higher efficiency (manpower and land), increased use of machinery, greater efficiency in water consumption, easier control of pests/diseases, rational use of labor (to save time by not going to distant parcels) and the implementation of suitable cultivation patterns for land consolidation projects.

In Guilan province, land consolidation projects started in 1992 intending to increase rice yield, mechanization of cultivation, the possibility of a second crop, improvement, and protection of soil, farm management, promotion of the socio-economic status of rural communities, and higher productivity. In total, out of 238000 hectares of paddy fields in the province, 180000 hectares can be consolidated. So far, the project has been implemented in 68,000 hectares of paddy fields, and in a period of three to four years, 55,000 hectares of other fields will be consolidated. Up to now, for more than 76,000 hectares of agricultural lands in the province, this project has been stabilized and provided, which has been effective in mechanization, increasing the level of production, reducing the costs, and most importantly, the second crop after the rice harvest (Allahyaria et al., 2018). The land consolidation project in paddy fields of Shaft County almost started as other consolidation projects started in the province. Nevertheless, in Choobar rural district, the largest rural district in the County, the project has gained momentum since 2011. Therefore, given the importance of land consolidation projects in improving the status of rural households, "sustainable

rural livelihood" is the approach of this study, which is one of the approaches that try to address the poverty and vulnerability of households, focusing on man and his activities; it is mainly a reaction to create attractiveness in rural areas that arise through income generation in livestock or agricultural activities (Okali, 2001, as cited in Asghari Lafmejani et al., 2016). In fact, in this approach, the real help for the rural poor is to support them in their way of life. Therefore, to reduce the immediate livelihood problems in rural areas, some basic measures should be taken to develop new methods for organizing activities, job diversity, and resource utilization with a forward-looking approach, as today's rural communities are mainly characterized by features such as information poverty, low skills, weak entrepreneurial culture and ethnic-tribal inequalities that have a significant impact on their livelihood instability. Therefore, the major strategic challenges of these communities in achieving sustainable rural livelihoods include: diversifying livelihoods, establishing an appropriate blend of inter-organizational livelihood in rural areas, reducing the number of livelihood resources, adapting the way of working with environmental potentials, and analyzing vulnerability levels in the environment. Addressing such challenges should start from within the local community only with a holistic view of development, especially rural development, using a special problem-solving methodology to achieve the development of sustainable rural livelihoods through empowerment, capacity building in the rural community for rural projecting and management; nevertheless, external factors may play a role as facilitators. Therefore, given the importance of this issue, this study aims to answer the basic question: Given the variables and indicators obtained from the study, how successful has been the paddy field consolidation project in Choobar rural district, Shaft County?

2. Research Theoretical Literature

A sustainable rural economy depends on several factors in social, economic, and environmental dimensions, and achieving each of them requires attention to all other aspects. Successful rural development requires the provision of agricultural infrastructure and facilities to utilize agricultural land at its most appropriate scale; Achieving this goal, requires up-to-date training, maintaining the integrity of the environmental system in the long run, and achieving sustainable income and development in this area (Moradi Masihi & Talebi, 2017). It is important to take into account a range of activities, both in terms of access to assets and how to use them. As long as the life of rural households is facing the challenge of poverty, in the absence of minimum living standards, it will overshadow all aspects of their lives. Extensive problems occur on a large scale, including economic, political, social, and psychological issues. Therefore, attempts should be made to establish a stable livelihood at the rural household level (Nowrouzi & Hayati, 2015). Having this in mind, in rural development projects, resources should be used in a system to promote sustainable agriculture rather than destroy natural resources and existing infrastructure. A system in which by proper management of natural resources, human food needs can be met and the quality of the environment is maintained and the destruction of natural resources can be prevented (Pishro & Azizi, 2009). Therefore, soil protection, irrigation network improvement, land consolidation, unification of land quality, redistribution of agricultural lands within an area, consolidation and redistribution of land parcels within an area, land rearrangement, and land preparation all refer to a process called land consolidation (Roknoddin Eftekhari, 1995), are known as measures to reduce poverty, increase income, and improve the economic well-being of villagers. The main purpose of land consolidation is to improve the productivity of agricultural land by merging land parcels into the smallest possible number, while providing roads, preserving the environment, and improving rural livelihoods (MSLC, 2002). On the other hand, land consolidation by facilitating rural development makes way for optimal use of water, soil, and human resources in rural areas, and it will have undeniable effects on creating a proper economic structure and a favorable trend in national development, as it facilitates proper land planning (Momeni et al., 2017). In other words, this measure can be used to reduce the adverse economic effects of fragmentation and dispersion of agricultural land. This situation, which is the consequence of family exploitation and inheritance law in Iran, is something that has challenged the sustainable economy of many rural areas of Iran and has caused regional inequalities (figure 1).

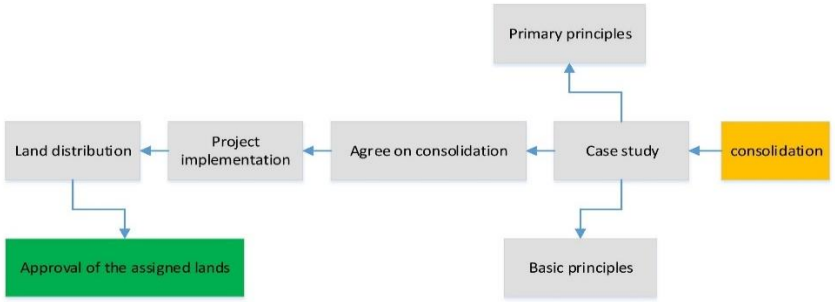

Figure 1. Outline of the executive and operational processes of land consolidation

Iran has one of the most complex systems of agricultural exploitation, and naturally, this complexity requires appropriate and comprehensive approaches to the management of agricultural labor and agricultural development. We cannot expect the realization of agricultural development with a reductionist approach. We need an approach that not also improves agricultural growth and the living conditions of the general farmers, but also improves economic justice (Varmaziari et al., 2013). Therefore, some institutional and participatory infrastructure is essential to achieve the goals of development projects in rural areas. Studies have found that the development of new production technologies and training the agricultural stakeholders play an important role in achieving agricultural and rural development, which is fulfilled through the institutions of agricultural promotion and training. Promoting and training to adopt technologies in the agricultural sector and the successful use of technologies in agricultural development projects, requires that people be persuaded into acceptance or non-acceptance of innovations based on the information obtained and comparing the proposed technologies with the existing methods. In such circumstances, the promotion and training institutions play an important role as they provide the information and training required for these two stages to the target groups. After gaining sufficient knowledge and information, people first think and argue about the proposed technologies, judge the proposed arguments, and finally make decisions (Ismaili Dastjerdipour et al., 2014). Currently, among the important issues in changing the patterns of agriculture and keeping pace with global changes in line with agricultural sustainability, are the farmers' lack of awareness of new farming methods and lack of risk-taking, resistance to changes, and low participation in national and regional projects. However, it has been proven that efficient institutions reduce the costs of inadequate information and production, and encourage the formation of social capital and other participatory facilities. In this framework, the social approach emphasizes the role of the voluntary and grassroots sector, local development, and community-based organizations. Community-based development is the process by which local community groups take the lead, organize, and act to achieve common interests and goals, including social welfare, problem-solving, and overcoming poverty. This process plays a key role in improving the quality of life and social variables especially social capital, as no development can be formed without local people's participation, satisfaction, and social trust. The study of issues of national development programs in Iran also confirms the same issue. Social capital, acts like an adhesive and creates solidarity among individuals in a society and becomes the source of social interactions in various areas of life, including the public sphere, from the local (micro) level to the (macro) level of government. This capital makes the society more powerful in dealing with problems and its reduction leads to the emergence of acute social problems (Hasanzadeh, 2008). Studies show that in Iran, social capital within the rural group is at a desirable level, while social capital outside the group is not in a very good condition, it includes social networks, interactions with external actors and institutions, institutional trust, etc. Attention to this issue and its importance becomes clear when we realize that implementation of any project in the villages without these networks will not be possible, as the communications of the host community with the executive apparatus and planning institutions and trust in them, all lay the ground for the participation of the villagers in the implementation of such projects and represents the social capital outside the groups.

On the other hand, simply emphasizing the importance of participation in the rural development process is not a sufficient reason for the participation of villagers, because maximum participation of rural people in the implementation of development plans requires recognizing the capacities and capabilities as well as recognizing the weaknesses in rural areas, and this way

makes ground for their maximum participation by increasing the current capacities (Aref & Redzuan, 2009, as cited in Heidari Sareban & Majnuni, 2016). In other words, at the community level, the management structure with interactive features should be further supported, i.e., by creating responsibility in individuals, we can increase their level of participation (Johnson & Daley, 2004). Although technical capacities are one of the key aspects in being able to adapt to the environment in carrying out agricultural development projects, the existence of innovations along with the villagers' access to them and the amount of advice received regarding the use of innovations (inland consolidation projects) is also one of the important elements; and in addition to technological progress and economic development, the existing social capital and government structure should also be taken into account (Brooks and Adgar, 2005).

Studies have found that to achieve agricultural development, we need to strengthen and empower rural farmers, as it paves the way for optimal and balanced use of basic resources, higher productivity and production, higher income, and improved quality of rural life, especially among low-income rural people. Empowerment and capacity building can enhance the existing potentials in rural settlements and help to achieve development and improve the socio-economic performance of villagers. Upgrading and improving empowerment indicators to achieve their social development as one of the effective strategies is necessary and attracts the attention of policymakers and rural development planners, and provides the necessary infrastructure for rural development. Therefore, the Iranian agricultural community which has a very low literacy level and is mainly based on indigenous knowledge rather than a formal one can play an effective role in implementing the policies and sustainable agricultural development projects, if the necessary conditions are provided through capacity building and empowerment.

In general, in the paddy field consolidation project, which is implemented as a fundamental policy solution to achieve sustainable environmental and economic development in rural areas, it is possible to encourage the participation of stakeholders by taking the views of villagers, awareness-raising, training, the use of modern technologies, and establishing cooperatives, etc., which pave the way for increasing the socio-cultural and livelihood capacities up to a favorable level which will be significantly effective in advancing the goals of sustainable development in rural areas. Accordingly, the conceptual model of the research is as follows (figure 2):

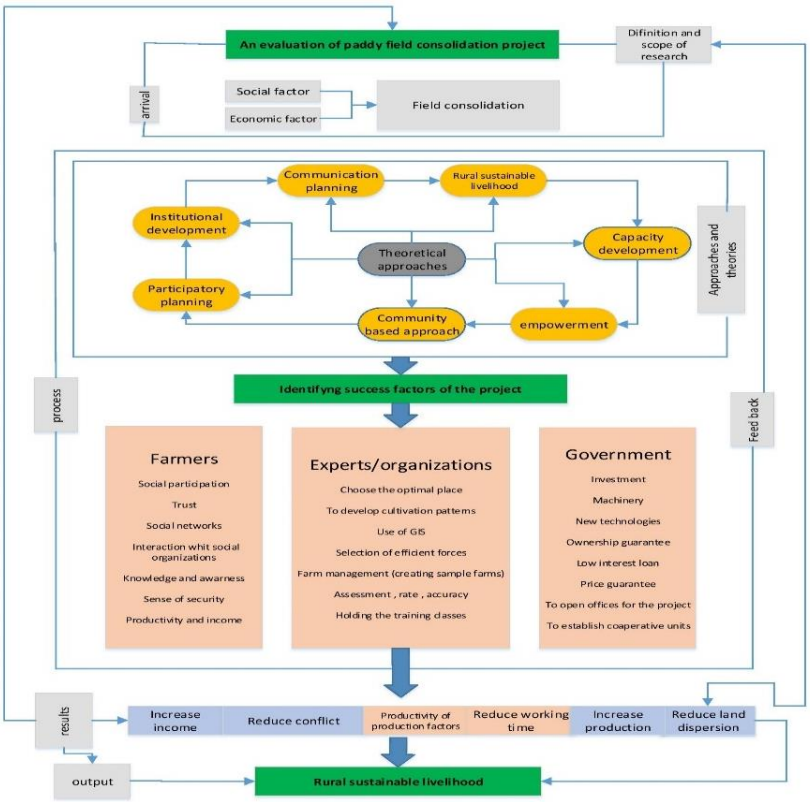

Figure 2. Conceptual model of the research

Table 1 shows summarily the implementation process, goals and obstacles, and the effects and consequences in some of the countries that have implemented the consolidation projects.

Table 1. Global experiences in agricultural land consolidation

Countries	Objectives	obstacles	Execution methods		Success factors	Results and Consequences
			Agents	Dimensions		
Germany	To eliminate destructive effects of land fragmentation, to improve production process, to improve working conditions of the farmers	Land fragmentation, traditional way of using land (traditional beliefs), conventional rules, common laws limiting ownership	Non-spontaneous	Land consolidation	Taking into account the factors of location, shape and size of land parcels, use of the GPS technology	Minimized effects of dispersion, improvement in the structure of agriculture, management of water and protection of natural resources
Japan	To increase the productivity of the agricultural sector, to increase the gross agricultural production, to raise the production level of certain products and improve the structure of agricultural sector	Small agricultural exploitation, low concentration of agricultural activities compared to other developed countries, low share of leased land in total agricultural land	Non-spontaneous	Land consolidation	Establishment of regional management cooperatives, building the trust of the villagers, support of the central government, granting financial credits	Improved utilization of resources, reduced production costs, higher profitability of products, development of agriculture
The execution method was spontaneous at first and by governments; then they got successful by establishing agricultural cooperatives and using local capacities and greater empowerment of farmers.						
Netherlands	To rearrange and modernize the agricultural operations, to improve infrastructure and manage water and soil	Low level of mechanization, differences and conflicts between farmers, lack of mutual trust between farmers and the government, farmers' lack of proper understanding of the project	Voluntarily	Incomplete (limited delimitation	Recognition of rights related to land, detailed preliminary studies, awareness of farmers, mechanisms for the resolution of the disputes between farmers	Improved public space of the villages, making the lands economical, improved land management
Serbia	To improve people's living conditions ,to increase the yield of agricultural products, to create large farms	Lack of laws to prosecute property violations, large dispersion of land parcels	Spontaneous	Land consolidation	Guarantee of land repayment to the original owners, active public participation, government financial credits	Rural revitalization, economic sustainability, improved agricultural production performance

Countries	Objectives	obstacles	Execution methods		Success factors	Results and Consequences
This project was initially unsuccessful in this country, but by applying and creating repayment laws and guaranteeing lands to their original owners, the project was employed seriously and successfully.						
Turkey	To prevent the exploitation of agricultural lands for purposes other than cultivation, to organize activities of rural settlements, to protect agricultural lands, to raise the level of production	Fragmentation of land parcels, cumbersome laws on inheritance, negative views of older farmers about consolidation project	Agents Non-spontaneous	Dimensions Land consolidation	To pass an environmental protection law, to allocate credits for the expansion of land optimization by the Labor Bank, revision about organizations implementing the project, public awareness	Land consolidation, protection of water and soil resources, higher production efficiency, farm management and optimization of agricultural structure
The implementation of the project was in both methods (voluntary and non-voluntary), but in the following stages, the focus is on the non-spontaneous method that has been conducted by the government						
China	To preserve agricultural land, increase agricultural production, reduce the loss of agricultural land, increase surface area and improve the productivity of agriculture	Conflicts between central and local governments, lack of effective cooperation between land consolidation policies and other socio-economic programs, lack of long-term investment	Semi-spontaneous	Full	Development of local projects, bottom-up operational strategy, determination of the annual project goals, considering the land slope	Agricultural production efficiency, food security, agricultural development
In this project, small parcels are joined together and turned into large pieces; the construction of irrigation systems, drainage, roads were government-oriented and public participation was welcomed in the implementation of the project.						
Iran	Production efficiency, cost reduction, higher efficiency, easy control of pests and diseases, rational use of labor	Land reform, socio-economic and climatic conditions of the regions, the inheritance law, differences in land quality	Semi-spontaneous	Incomplete (delimitation)	Awareness raising, enactment of laws to prevent land fragmentation, to encourage farmers, to review executive policies	Reconstruction of irrigation networks, reconstruction and improvement of rural settlements, increased production and productivity, reconstruction of production
The implementation of the project in most areas has led to higher productivity of production factors. The project was conducted in a semi-spontaneous method, in which the government has granted some financial facilities. The villagers can actively participate and help advance this project						

Ghaffari et al. (2016) conducted in a descriptive-analytical method, found a significant difference in the period before and after the implementation of the project in the number of land parcels per farmer, area under cultivation, wheat and barley yields, area covered by pressurized irrigation, cost of using machinery for plowing, plotting, demarcation, dredging, and land preparation, the use of machines for fertilizing and sowing, harvesting and transporting the crops, the use of pesticides, labor, as well as the rate of water consumption that in general have made significant changes in the productivity of production factors in the study area.

Yasouri et al. (2012) used inductive method and survey to directly collect information from target groups (farmers who are heads of households). The population of this study consisted of 410 farmers whose lands have been consolidated in 1997-2005. The findings showed that the implementation of land consolidation project has produced positive social effects by changing the structure of agricultural land, increasing the land area and the use of new irrigation methods. The social effects included less disputes over water distribution and boundaries between parcels, more social participation and saving time. However, a large part of the positive effects of the project were economic such as reduced number of parcels, larger areas for farming, having enough water for irrigation, using agricultural machinery and equipment, easier use of pesticides, etc., which have increased the production of crops and the efficiency of various crops per unit area.

Bouzarjomehri and Anzaei (2012) conducted a study using a descriptive-analytical and survey method, in their evaluation of the views of farmers and experts on the successful implementation of the project showed that both farmers and experts with a correlation coefficient of 0.641 have evaluated the project successful in technological performance. Based on the test results, all technology variables have been evaluated good from the perspective of both farmers and experts. On the other hand, it was found that the presence of effective criteria for achieving the quantitative and qualitative goals of the project to equip and renovate paddy fields in the current infrastructure in Mazandaran province is very low.

Allahyaria et al. (2018) using 385 questionnaires, and multi-stage cluster sampling method from four districts of Masal County found that most of the farmers in these areas are smallholder farmers who have three land parcels and a significant proportion (26.5%) have more than 5 parcels who are the elderly. Findings showed that four important factors in terms of variance were: economic productivity (16.93), physical working conditions (16.73), technical efficiency related to better use of resources (12.34), and land productivity (4.09), all of which are effective in farmers' satisfaction. Finally, it was found that the success rate of the project mainly emphasizes the satisfaction and acceptance of the farmers.

Lisec et al. (2012) introduced the benefits of land consolidation including: better land use, improved roads and drainage networks, landscaping, environmental management, conservation projects and other functions that can be implemented in such projects. The authors have compared the organizational framework of land consolidation between Slovenia and Norway. In Norway, there has been more or less continuous legal and cultural development of land ownership institutions. In Norway, the Court of Land Consolidation also acts as a coordinator of judicial decisions, but in Slovenia various political and economic regulations over the past two centuries have left Slovenia with difficulties in changing the development of land management and ownership institutions. The current system of land consolidation in Slovenia is criticized for the lack of a systematic organization of public services, and in Slovenia the overlap in decision-makings of organizations is also seen a weakness.

Vitikainen (2004) discussed the similarities and differences in land consolidation methods in different European countries. He argued that there are differences in goals and methods of land consolidation in each country, which are due to the historical backgrounds, culture, traditions and laws of each country. Land consolidation in all countries is legalized and its laws were amended in the 1970s and 1980s due to modern agriculture and socio-political demands, and the laws are seen as a multifaceted tool for rural development.

Zaheer (1975) showed that land consolidation in large parts of India, including more than 80,000 villages, has had benefits in various social, cultural, economic and ecological dimensions, such as improved water and soil management, time savings, lower production costs, higher revenue, use of new inputs and machinery, etc. Land consolidation transforms rural life and ultimately paves the way to achieve the rural development goals.

3. Research Methodology

This research is an applied one, conducted in a descriptive and analytical method. The data was collected by document analysis and survey (observation and questionnaire). The study area includes 11 villages out of a total of 35 villages in Choobar rural district, in which the land consolidation project has been carried out by the Water and Soil Management of Jihad Agricultural Organization in Shaft County. The 1137 households in Choobar rural district that have been included in the land consolidation project, and 285 farmers were selected by Morgan method.

The content validity of the questionnaire was confirmed after consulting experts and professors of the University of Guilan, including four faculty members of the Department of Geography and four faculty members of the Department of Agricultural Economics; Its reliability was assessed using Cronbach's alpha coefficient (0.89) which confirms the reliability of the questionnaire (table 2 & 3).

Table 2. Cronbach's alpha coefficient of the components and indicators in the questionnaire

Components	Alpha coefficients	Indicators	Alpha coefficients
Farm management and productivity	0.71	Conditions of the lands	0.74
		Productivity and employment of the households	0.78
Government	0.70	Support and facilities	0.71
		Infrastructure	0.73
Income and investment	0.70	Income	0.72
		Investment	0.70
Machinery	0.79	Use of machinery	0.72
		Ease of access to machinery and manpower	0.70
Social participation	0.84	Objective participation	0.74
		Formal participation	0.76
Social Networks	0.70	Intra-group and inter-group relations	0.76
		Extra-group relations	0.76
Social organizations	0.72	Private organizations and institutions	0.70
		Formal and governmental organizations and institutions	0.72
Trust	0.74	Interpersonal and generalized trust	0.74
		Institutional trust	0.70
knowledge and awareness	0.71	Individual awareness	0.75
		To use others' experiences	0.71
		Education (formal knowledge)	0.75
Sense of security	0.71	Insurance services	0.74
		Physical	0.71
		Conflicts and quarrels	0.80

The villages of the study included 11 villages (Tani Mahalla, Sayqalan, Kuchak Kamsar, Lifko Khandan, Lifko, Kazemabad, Mirsara, Bijarsar, Choobtarashan, Khoramabad, Shadneshin) in which the land consolidation project was implemented; they are shown in the maps below (figure 3 & 4).

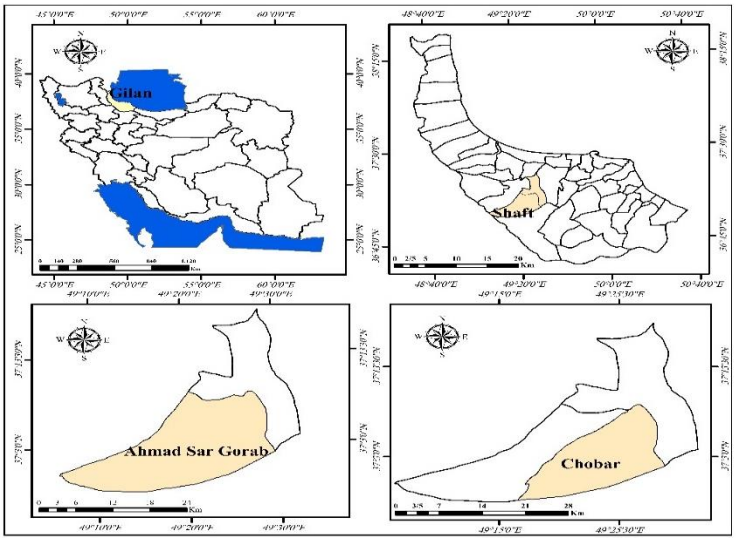

Figure 3. The situation of the study area in the administrative divisions

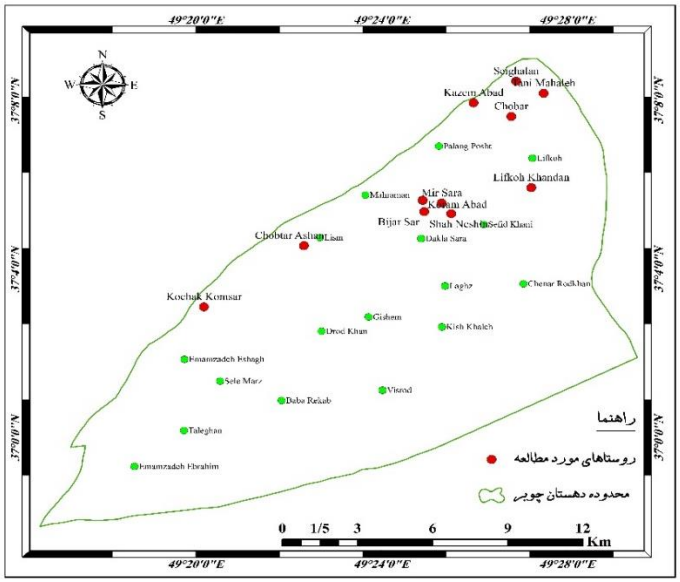

Figure 4. Location of the study villages in Choobar rural district

Table 3. Dimensions, components, indicators and variables affecting the success of the paddy field consolidation project

Dimensions	Components	Indicators	Variables
Economic	Farm management and productivity	Conditions of the lands	Land quality (production capacity), area of plots, distance between plots, demarcation of plots, ease of access (movement) to agricultural plots
		Productivity and employment of the households	Crop yield, reducing the need for labor, reducing unemployment, family labor, diversity of activities and production, new techniques (skills development) of human resources
	Government	Support and facilities	Credit and financial facilities, product purchase guarantee, price guarantee, product marketing, insurance services, farm input supply
		Infrastructure	To open offices for the project, to construct irrigation canals, to build roads between farms, to establish cooperative units, to develop cultivation patterns
	Income and investment	Income	Farmers' income level, household income level, income from diversity of activities and production, ancillary income (from renting machines, equipment, etc.), increase in income from the second crop
		Investment	Investment in banks and financial institutions, farmers' capital to purchase land and property, investment to increase crop yield, investment in development and purchase of agricultural equipment
	Machinery	Use of machinery	Use of modern machinery, machine efficiency, proper equipment maintenance, equipment costs
		Ease of access to machinery and manpower	Access to machines, easy use of machines, employment of manpower, saving working time
social	Social participation	Objective participation	Having a say in the project, the elders advise, consulting with successful farmers, accompanying the farmer's neighbors (adjacent farmers), public participation in agricultural development projects
		Formal participation	Partnership with local managers (Dehyars and Rural Councils), partnership with Agricultural Jihad, cooperation with agricultural promoters
	Social Networks	Intra-group and inter-group relations	Relations with neighboring farmers, relations between farmers, relations with local trustees, relations with rural managers (Dehyars and Rural Councils)

Dimensions	Components	Indicators	Variables
		Extra-group relations	Communication with executors of the project, relations with non-governmental organizations (such as Farmer's House, Research and Development Association, etc.), communication with production cooperatives, communication with agricultural promoters
	Social organizations	Private organizations and institutions	Satisfaction with local organizations, support of the NGO (e.g.: Farmer's House, Research and Development Association), performance of agricultural unions
		Formal and governmental organizations and institutions	Satisfaction with Agricultural Jihad, satisfaction with Keshavarzi Bank, satisfaction with insurance companies, satisfaction with local managers (Dehyars and Rural Councils)
	Trust	Interpersonal and generalized trust	Trust in neighboring farmers, trust between farmers, trust in elders, trust in the effectiveness of rural projects, trust in improving livelihoods as a result of the project, trust in technical experts of the project, trust in agricultural promoters, trust in executors of the project
		Institutional trust	Trust in the government, trust in local organizations (such as credit and savings), trust in Agricultural Jihad, trust in local managers (Dehyars and Rural Councils), trust in NGOs (Farmer's House, Research and Development Association, etc.,), Trust in Rural Dispute Resolution Councils
	knowledge and awareness	Individual awareness	Awareness of the possible results of the project, to know the responsible authorities, to know the rules of the project, the number of studies conducted for agricultural projects
		To use others' experiences	Talking to the elders, agreeing with other farmers, consulting with the experts of the Agricultural Jihad, to consult with neighboring farmers, to visit model farms, talking to farmers successful in the project
		Education (formal knowledge)	The amount of participation in training classes, the amount of training and skill courses, the amount of access to agricultural publications, the amount of role and performance of agricultural promoters, watching educational videos
	Sense of security	Individual	Individual ownership, to ensure the cultivation of the desired crops, to ensure a proper business environment, no reduction in the value of lands
		Insurance services	How to organize one's insurance, land insurance services before the implementation of the project, land insurance services after the implementation of the project, free insurance consultation
		Physical	How to implement the project, reduced water loss (by drainage and canals), optimal land design, equal distribution of land, optimal access to land
		Conflicts and quarrels	Farmers' conflict over land division, conflict with experts of the project, disagreement with executors of the project, dispute over how to implement the project

(Mahdavi et al., 2017; Hadizadeh Bazaz & Bouzarjomehri, 2017; Haghighat et al., 2015; Varmaziari et al., 2013; Lowe et al., 2005; Brooks & Adgar, 2005)

4. Research Findings

4.1. Individual characteristics

Of the total number of farmers, 256 or 89.8% are men and 29 or 10.2% are women. Regarding the age characteristics of the total sample size, 34% (97 people) of the respondents in the 53-59 age group had the highest frequency and only 4.9% (14 people) of them were in the 30-37 age group**.** Besides, out of the total sample, 46.3% (132 people) were illiterate which has the highest frequency in the study area; Then, 26% (74 people) with primary education have the highest number of respondents (table 4).

Table 4. Gender and age characteristics of the sample population

Description	Class	Frequency	Percent	Description	Class	Frequency	Percent
Gender	Male	256	89.8		illiterate	132	46.3

Description	Class	Frequency	Percent	Description	Class	Frequency	Percent
	Female	29	10.2	Literacy and education	Primary education	74	26
	Sum	285	100		Secondary education	49	17.2
Age	30-37	14	4.9		High school diploma	23	8.1
	38-45	49	17.2		Associate Degree	4	1.4
	46-52	87	30.5		BA/BSc	3	1.1
	53-59	97	34		MA/MSc	-	-
	60+	38	13.3		P.H.D	-	-
	Sum	285	100		Sum	285	100

Paddy field consolidation in of Shaft County was implemented in 2014 by Jihad Agriculture Organization to consolidate the agricultural lands of the villagers in the region. Out of a total of 12,317 hectares of lands in the County, 5,500 hectares were included in the project. In Choobar rural district, out of 35 villages, 11 villages of Tani Mahalla, Sayqalan, Kuchak Kamsar, Lifko Khandan, Lifko, Kazemabad, Mirsara, Bijarsar, Choobtarashan, Khoramabad, Shadneshin were included which had 1137 farmers and 490 hectares of their lands were included in the project. The project was implemented in 425 hectares of lands whose villages are selected as the villages of the study. Among these villages, the small villages of Kamsar and Tani Mahalleh had the highest rate of inclusion (89.2 and 88%) respectively, and Khorramabad village had the lowest rate of inclusion (77.7%) compared to other villages (tables 5 & 6).

Table 5. Number of farmers, agricultural lands, lands consolidated until 2017

Description	Number of farmers	Agricultural land (hectares)	Land consolidated (hectares)
Shaft County	10275	12317	5500
Ahmadsargourab	5281	6375	921
Choobar District	1855	2755	
The study villages	1137	598	

Table 6. Farmers subject to land consolidation project by cultivation area in the study villages

Villages	Number of farmers	Land cultivated (hectares)		
		Total	Subject to the project	Percent
Tani Mahale	80	42	37	88
Seyghalan	187	62	55	88.7
Kouchak Komsar	47	28	25	89.2
Lifkukhandan	88	32	26	81.2
Lifkhouh	148	96	85	88.5
Kazem Abad	108	54	48	88.8
Mirsara	145	70	60	84.5
Bijarsar	81	40	35	83.3
Chobtarashan	135	20	17	85
Khoram Abad	66	18	15	77.7
Shadneshin	52	28	22	78.5

4.2. Aagricultural lands & mechanization

The area of agricultural lands of the villages in 2004 was 660 hectares, which has been reduced to 630 hectares in 2014, and 598 hectares in 2017. The reduction of land in this area is due to the constructions (change in land-use) that have taken the lands out of agricultural use. Besides, due to the implementation of the land consolidation project, some roads, canals and drainage were built which reduced the agricultural land in this area. Among

the study villages, Kazemabad and Choobtarashan have had a positive coefficient in recent years due to the development of barren lands for agricultural purposes; therefore, the area of agricultural land in these villages has increased (table 7).

Table 7. Area of agricultural land (hectares) in the study villages in 2004-2017

Villages	Area			Percentage of changes	
	2004	2014	2017	2004-2014 (Before the project)	2014-2017 (After the project)
Tani Mahale	56	53	50	-5.36	-5.66
Seyghalan	85	78	71	-8.24	-8.97
Kouchak Komsar	40	37	34	-7.50	-8.11
Lifkukhandan	45	42	39	-6.67	-7.14
Lifkhouh	137	128	118	-6.57	-7.81
Kazem Abad	55	57	60	3.64	5.26
Mirsara	86	83	80	-3.49	-3.61
Bijarsar	61	57	53	-6.56	-7.2
Chobtarashan	32	35	38	9.38	8.57
Khoram Abad	23	22	20	-4.35	-9.09
Shadneshin	40	38	35	-5	-7.89
All of the study villages	660	630	598	-3.52	-5.8
Choobar District	3091	2976	2755	-3.72	-7.43

The coefficient of changes in cultivated lands in Choobar rural district in 2004-2014 was -4.4% and this figure has decreased to -8.06.06 in 2014-2017. In Shaft County, this figure has changed from -4.97 to -6.01. This increase in the negative coefficient indicates a decrease in the area under cultivation in this area. Among the studied villages, in the villages of Choobtarashan and Kazemabad in recent decades, due to the development of barren lands for agriculture, the area under cultivation has increased in these villages; however, other villages are experiencing a negative coefficient (table 8).

Table 8. Area of agricultural lands by agricultural and horticultural lands (hectares) in 2004-2017

Source: Shaft Jihad-e Agriculture Organization, 2017

Villages	2004				2017				Percentage of changes	
	agricultural		horticultural		agricultural		horticultural			
	Area	Percent	Area	Percent	Area	Percent	Area	Percent	2004-2014 (Before the project)	2014-2017 (After the project)
Tani Mahale	46	95.8	2	4.2	42	93.3	3	6.7	-4	-6.25
Seyghalan	69	95.8	3	4.2	62	93.9	4	6.1	-7.69	-8.33
Kouchak Komsar	32	94.1	2	5.9	28	90.3	3	9.7	-5.56	-8.82
Lifkukhandan	33	94.2	2	5.8	32	91.5	3	9.5	-5	-7.89
Lifkhouh	107	93.9	7	6.1	96	91.4	9	9.6	-7.32	-7.89
Kazem Abad	52	96.3	2	3.7	54	94.7	3	5.3	3.85	5.56
Mirsara	72	93.5	5	6.5	70	94.6	4	5.4	-3.75	-3.90
Bijarsar	44	81.5	10	19.5	40	78.4	11	21.6	-5.26	-5.56
Chobtarashan	20	64.5	11	35.5	20	60.6	12	39.4	-6.90	-6.45
Khoram Abad	18	90	2	10	18	94.7	1	5.3	-4.76	-5
Shadneshin	31	88.6	4	11.4	28	87.5	2	12.5	-7.89	-8.57
Choobar District	955	42.8	1274	57.2	878	42.5	1187	57.5	-4.40	-8.06
Shaft County	6123	67.4	2964	32.6	5455	65.5	2875	34.5	-4.97	-6.01

In the study area, thanks to changes in approaches to agriculture and increasing use of agricultural equipment and tools, the mechanization has led to growth in this index, as the mean mechanization coefficient in Choobar rural district has increased from 0.423 in 2014 to 0.457 in 2017. The highest mechanization coefficient belongs to village of Bijarsar (0.149) and the lowest coefficient belongs to Khorramabad village with a coefficient of 0.087 (table 9).

Table 9. Mechanization coefficients in the study villages, 2014-2017

Villages	2014				2017				Percentage of changes (2014-2017)
	Cultivated lands (hectares)	Machinery	Total horse Power (HP)	Mechanization coefficients	Cultivated lands (m^2)	Machinery	Total horse Power (HP)	Mechanization coefficients	
Tani Mahale	48	45	784	0.163	45	48	805	0.177	8.36
Seyghalan	72	65	818	0.114	66	78	1045	0.123	8.26
Kouchak Komsar	34	20	418	0.123	31	28	432	0.134	8.99
Lifkukhandan	38	32	519	0.137	35	40	568	0.143	4.70
Lifkhouh	114	115	1289	0.113	105	125	1480	0.121	7.01
Kazem Abad	54	38	629	0.116	57	46	700	0.123	5.43
Mirsara	77	70	900	0.128	74	77	1023	0.138	7.74
Bijarsar	54	49	752	0.139	51	55	929	0.149	6.99
Chobtarashan	31	23	282	0.090	33	25	296	0.095	5.55
Khoram Abad	20	15	144	0.083	19	16	173	0.087	5.26
Shadneshin	35	33	405	0.116	32	40	507	0.122	5.43
Choobar District	955	1625	40380	0.423	878	1881	46305	0.457	8.08
Shaft County	6123	4795	159185	0.260	5755	5250	179745	0.279	7.31

4.3. Social and economic indicators

Based on the results, the infrastructure indicator with a mean of 3.57 had the highest mean and the 'support and facilities' indicator with a mean of 2.71 had the lowest mean among economic indicators from the farmers' point of view. It should be noted that in reviewing the indicator of support and facilities, items such as granting incentive loans to farmers for successful implementation of the project, guaranteeing the purchase of agricultural products, marketing products produced in consolidated lands, providing agricultural inputs by the government and insurance services after the implementation of the project have been evaluated. For the infrastructure indicator, items such as organizing water canals, improving access roads between farms, developing a cultivation pattern, establishing cooperative companies for rural production, etc. have been considered. The findings showed significant differences in these indicators (table 10).

Table 10. Descriptive findings of the economic indicators

Components	Indicators	Mean	Standard Deviation (SD)
Farm management and productivity	Conditions of the lands	3.31	0.74
	Productivity and employment of households	3.25	0.83
Government	Support and facilities	2.71	0.69
	Infrastructure	3.57	0.77
Income and investment	Income	3.05	0.86
	Investment	3.21	0.95
Machinery	Use of machinery	3.38	0.85
	Ease of access to machinery and manpower	3.37	0.84

Based on the results obtained from the table 11, the indicator of personal security with a mean of 3.52 has the highest mean and the indicator of 'conflicts and quarrels' with a mean of 2.89 has the lowest mean among the indicators of success in the social dimension. It should be noted that the low level of conflicts and quarrels between farmers and each other and the executive agents of the project, on the one hand is due to their satisfaction with the implementation of the project and on the other hand, the high level of participation and trust has led to reduced conflicts and quarrels.

Table 11. Descriptive findings of the social indicators

Components	Indicators	Mean	Standard deviation (SD)
Social participation	Objective participation	3.41	0.91
	Formal participation	3.35	0.76
Social Networks	Intra-group and inter-group relations	3.36	0.82
	Extra-group relations	2.93	0.74
Social organizations	Private organizations and institutions	3.13	0.83
	Formal and governmental organizations and institutions	3.29	0.81
Trust	Interpersonal and generalized trust	3.41	0.65
	Institutional trust	3.42	0.61
Knowledge and awareness	Individual awareness	2.92	0.8
	To use others' experiences	3.44	0.78
	Education (formal knowledge)	3.08	0.82
Sense of security	Sense of personal security	3.52	0.69
	Insurance services	3.21	0.81
	Physical	3.33	0.86
	Conflicts and quarrels	2.89	0.72

The skewness, Kurtosis and Kolmogorov–Smirnov test were used to assess the normality of the distribution of scores of the indicators used to measure the success rate of the paddy field consolidation project in of Choobar rural district (table 12). Based on the results, the degree of Kurtosis and skewness of the indicators of the success rate of the agricultural land consolidation project is in the numerical range (±1), which indicates the symmetry of the mean and mode, as well as the normal distribution of data in descriptive terms. In addition, the significant level for the success rate in the economic and social dimensions and the success of the consolidation project was calculated ($p > 0.05$); In general, the dimension of the parametric tests could be used to measure the success rate of the consolidation project in paddy fields.

Table 12. Descriptive statistics of the indicators of the success rate of the project in terms of normality in the sample population

Indicators / variables	Kolmogorov–Smirnov test		Coefficients	
	Statistics	Significance level (sig.)	Skewness	Kurtosis
Conditions of the lands	0.186	0.000	-0.52	-0.068
Productivity and employment of the households	0.131	0.000	-0.355	-0.559
Support and facilities	0.082	0.000	-.001	-0.829
Income	0.122	0.000	-0.342	-0.718
Investment	0.118	0.000	-0.269	-0.882
Use of machinery	0.108	0.000	-0.393	-0.682
Ease of access to machinery and manpower	0.114	0.000	-0.384	-0.453
Interpersonal and generalized trust	0.154	0.000	-0.267	-0.325
Institutional trust	0.155	0.000	-0.457	-0.38
Personal security	0.107	0.000	-0.456	-0.084

Indicators / variables	Kolmogorov–Smirnov test		Coefficients	
	Statistics	Significance level (sig.)	Skewness	Kurtosis
Insurance services	0.107	0.000	-0.182	-0.584
Physical	0.116	0.000	-0.288	-0.811
Reduced conflicts and quarrels	0.096	0.000	-0.041	-0.591
Success rate in the economic dimension	0.037	0.200	-0.238	0.586
Success rate in the social dimension	0.046	0.200	0.258	-0.118
Success rate of the whole project	0.051	0.073	0.048	0.672

4.4. Evaluation of the success rate of paddy field consolidation project in the study area

The results of the evaluation of the success rate of the paddy field consolidation project in the study area are summarized in the following tables. Given the positive value of the t-statistics (economic dimension: 12.39; social dimension: 18.78; implementation of the consolidation project: 20.31) and the significance level of $p<0.01$ for social and economic dimensions, as well as the success of the consolidation project in general indicate that the above results are greater than the number (1.96) of the critical table 13 t, and there is a significant difference between the mean base and the mean dimensions of the success rate as well as the total success rate; The positive low and high limits in these items also indicate that the mean economic and social dimensions and the success of the paddy field consolidation project in Choobar rural district is above average; Therefore, it can be said with 99% confidence that the implementation of the project in the study area from farmers' view is more than normal. In other words, it has been moderately to highly successful.

Regarding the success rate of the paddy field consolidation project, the mean obtained for the economic dimension is 3.23, for social dimension is 3.34 and the consolidation variable is 3.28, all of which are more than 3 and indicate the success of the project.

Table 13. The success rate of the consolidation project based on the one-sample t-test

Dimensions / variables	Test level = 3					
	Mean	Mean difference	Statistics t	Significance level- p	95% confidence interval	
					Lower limit	Upper limit
Economic	3.23	0.23	12.39	0.000	0.18	0.26
social	3.34	0.34	18.78	0.000	0.31	0.37
Success of the project	3.28	0.28	20.31	0.000	0.26	0.31

4.5. The relationship between the implementation of land consolidation project and improvement in economic indicators of rural households

Based on the results obtained from the table 14, the highest correlation between the implementation of the consolidation project and the economic indicators of households were found respectively, for the use of machinery, infrastructure, productivity and employment of the households, ease of access to machinery and manpower, income, investment and conditions of lands at the significance level of $p\leq 0.01$. The correlation between the land consolidation project and the indicator of 'support and facilities' had no significance at 99% confidence level.

Table 14. Determining the degree of correlation between implementation of the project and improvement in economic indicators in the study area

Economic indicators	Correlation results	
	Correlation coefficient	Significance (sig.)
Conditions of the lands	0.192**	0.001
Productivity and employment of the households	0.295**	0.000
Support and facilities	0.076*	0.100
infrastructure	0.330**	0.000

Economic indicators	Correlation results	
	Correlation coefficient	Significance (sig.)
Income	0.286**	0.000
investment	0.260**	0.000
Use of machinery	0.355**	0.000
Ease of access to machinery and manpower	0.290**	0.000

$p^{ns} > 0.05$ $p^{**} < 0.01$

Simple regression was used to identify the success of the land consolidation project in improving the overall economic effectiveness. Table 15 summarizes the regression analysis on the implementation of the consolidation project and its impact on the improvement of economic indicators in the study area. Based on the findings, R or the correlation coefficient of the research variables is 0.718. The above figure indicates the correlation between the research variables and shows that the independent variable has an effect on the dependent variable (economic indicators). The coefficient of determination calculated in the model is equal to 0.515, which indicates that the independent variable increases the predictive power and it can be said that the effectiveness of the consolidation project on the economic indicators of the residents of Choobar rural district can be predicted and identified.

Table 15. Test of correlation between the implementation of land consolidation project and the improvement of economic indicators

Correlation coefficient (R)	Determination coefficient (R Square)	Adjusted correlation coefficient	Standard Deviation
0.718	0.515	0.513	0.21

According to the table 16, which shows the analysis of variance of the regression model, the F-statistic is equal to 296.6, which means that independent variable of the research is correlated with the dependent variable and shows that the implementation of agricultural land consolidation project was effective in improving the economic indicators of rural households. It should also be noted that the greater the sum of the regression squares than the sum of the error squares, the better the fitted model.

Table 16. Variance analysis of regression model in research variables

Model		Error sum of squares	Degrees of freedom	Mean square error	Statistics F	Significance (sig.)
1	Regression	13.89	1	13.89	299.6	0.000
	Residual	13.07	282	0.046	-	
	Total	26.96	283			

1. Independent variable: Consolidation project
2. Dependent variable: Economic indicators

As table 17 shows, the beta coefficient was equal to 0.718 and significant at a significant level of p-<0.01. Therefore, it can be said with 99% confidence that the implementation of paddy field consolidation project in Choobar rural district have a positive and significant effect on economic indicators of rural households**.**

Table 17. Standard coefficients of the consolidation project variable on economic indicators in the regression model

Model	Non–standard coefficients		Beta Standardized coefficients	Statistics t	Significance (sig.)
	B	Standard deviation error			
Consolidation project	0.944	0.05	0.718	17.31	0.000

1. Independent variable: Consolidation project
2. Dependent variable: Economic indicators

4.6. The relationship between the implementation of land consolidation project and improvement in social indicators of rural households

As table 18 shows, the highest correlation between consolidation project and social indicators of households was found in interpersonal and generalized trust, objective participation, physical participation, insurance services, formal participation, conflicts and quarrels, and institutional trust at the significance level of $p \leq 0.01$. The results for the indicators of private organizations and institutions and intra-group and inter-group relations, were obtained at the significance level of $p \leq 0.05$. Nevertheless, the correlation between land consolidation project and indicators of extra-group relations, formal and governmental organizations and institutions, individual awareness, using others' experiences, and education (formal knowledge) was not significant at the confidence level of 99%.

Table 18. Correlation between implementation of the project and improvement in social indicators in the study area

Social indicators	Correlation results	
	Correlation coefficient	Significance (sig.)
Objective participation	0.349^{**}	0.001
Formal participation	0.260^{**}	0.000
Intra-group and inter-group relations	0.099^{*}	0.048
Extra-group relations	0.039^{ns}	0.254
Private organizations and institutions	0.126^{*}	0.017
Formal and governmental organizations and institutions	0.011^{ns}	0.428
Interpersonal and generalized trust	0.389^{**}	0.000
Institutional trust	0.160^{**}	0.000
Individual awareness	0.020^{ns}	0.370
To use others' experiences	0.022^{ns}	0.356
Education (Formal knowledge)	0.008^{ns}	0.445
Insurance services	0.272^{**}	0.000
Physical	0.320^{**}	0.000
Conflicts and quarrels	0.235^{**}	0.000

$p^{ns} > 0.05$ $p^{*} < 0.05$ $p^{**} < 0.01$

Based on the findings of regression analysis, R or the correlation coefficient of research variables is 0.623. The coefficient of determination in the model is equal to 0.389, which indicates that the independent variable has increased the predictive power and it can be said that the social indicators of rural households are affected by the success of the paddy field consolidation project in Choobar rural district, and it is predictable and identifiable (table 19).

Table 19. Correlation test between the implementation of the land consolidation project and the improvement in social indicators

Correlation coefficient (R)	Coefficient of determination (R Square)	Adjusted correlation coefficient	Standard deviation
0.623	0.389	0.386	0.17

As table 20 shows, the F statistic is equal to 179.23 and it means that the independent variable is correlated with the dependent variable and shows that the implementation of the project was effective in improving social indicators of rural households. It should also be noted that the greater the sum of the regression squares than the sum of the error squares, the better the fitted model.

Table 20. Variance analysis of regression model in research variables (social indicators)

Model		Error Sum of Squares	Degrees of freedom	Mean square error	Statistics F	Significance (sig.)
1	regression	5.281	1	5.281	179.234	0.000

Model		Error Sum of Squares	Degrees of freedom	Mean square error	Statistics F	Significance (sig.)
	Residual	8.309	282	0.029	-	
	Total	13.59	283			

1. Independent variable: Implementation of consolidation project
2. Dependent variable: Social indicators

As table 21 shows, the beta coefficient was 0.623 at a significant level of p≤ 0.01. Therefore, it can be said with 99% confidence that the paddy field consolidation project has a positive and significant effect on social indicators of rural households in Choobar rural district.

Table 21. Standard coefficients of implementation of consolidation project on social indicators in the regression model

Model	Non –standard coefficients		Beta standardized coefficients	t Statistics	Significance level Sig.
	B	Standard deviation error			
Implementation of consolidation project	0.09	0.015	0.259	6.07	0.000

1. Independent variable: Implementation of consolidation project
2. Dependent variable: Social indicators

5. Discussion and Conclusion

The research findings in the economic and social dimensions and the assessment of the success of the implementation of the paddy field consolidation project in Choobar rural district have shown that project was moderately to highly successful in the study area. The effects of the project in improving the socio-economic indicators of rural households in Choobar rural district is such that the highest correlation between the project and economic indicators was found in the use of machinery, land infrastructure, productivity and employment of the households, easy access to machinery and manpower, and income respectively. In fact, land consolidation in the study area has increased production and efficiency in production factors and agricultural inputs by expanding land, building roads between farms, reshaping and increasing the area of agricultural plots, as well as improving the use of agricultural machinery, which is in line with the main approach of the research, sustainable rural livelihoods, which views paddy field consolidation project as a fundamental process about land resizing and explains its relationship with the living conditions of households and access to livelihood capital in terms of sustainability. At the level of social indicators, the highest correlation was found with interpersonal and generalized trust, objective participation, sense of physical security, insurance services, formal participation, conflict and quarrel reduction and institutional trust, respectively. In this regard, Yasouri et al. (2012) found that implementation of land consolidation project could be effective in social dimensions by reducing disputes over water division and boundaries between parcels, saving time and social participation. Nevertheless, a large part of the positive effects of such projects are economic one including smaller number of land parcels, higher efficiency, sufficient water for irrigation, the use of machinery and agricultural tools, the use of pesticides, etc., which increases the crop yields and efficiency of various crops per unit area. From the perspective of farmers, among the socio-economic indicators, the infrastructure indicator created by the government and the use of machinery after the implementation of the project and the ease of access to machinery and manpower, interpersonal and generalized trust, have the greatest impact on project implementation. In this regard, from experts' view, increase in production, better utilization of rural household labor, skill development, organizing farm water canals, improvement in access roads between farms, and developing a cultivation pattern have a key role in the implementation of paddy field consolidation project. The results of the present study are in line with Bouzarjomehri & Anzaei (2012) that acknowledged that in the implementation of the consolidation project in addition to effective criteria required to fulfill the quantitative and qualitative goals of the project in achieving the potential in rice yield, it is necessary to take some measures to equip lands and farmers with up-to-date knowledge. Successful implementation of the

project from technological perspective is one of the elements that contributes to the quantitative and qualitative development of rice cultivation. Rezaie Moghadam et al. (2014) acknowledged that farmers who had more access to promotional services on consolidation information, have a better attitude and higher participation in the implementation of land consolidation project.

In general, as the economy of the study area is dependent on rice cultivation and thanks to the implementation of paddy field consolidation project as well as suitable environmental conditions of the villages in the region for rice cultivation, consolidation has helped to expand the agricultural land, build roads between farms, reshape and increase the area of agricultural plots, improve the use of agricultural machinery, increase production, improve productivity in agricultural factors and inputs; This is in line with the main approach of the study, namely sustainable rural livelihood, which views the paddy field consolidation project as a basic process for land resizing through the consolidation of farmers' arable land parcels, which can be recognized through the livelihood of households and their access to livelihood capital, as livelihood status will affect the current state of the study area in terms of sustainability. In the meantime, if the views of the farmers are taken into account, it can enable the agricultural sector, to supply the basic food needs of the country. In fact, the application of new technologies in the implementation of the project can play an important role in improving the living conditions of the population, and help save inputs and reduce production costs and raise farmers' satisfaction and willingness to implement the project in their farms. It also increases their leisure time which makes way for increasing the social, cultural and livelihood capacities up to a favorable level, which is effective in advancing development goals in rural areas and very effective in improving the economic and social status of rural households.

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Research Article

ارزیابی میزان موفقیت طرح یکپارچه سازی اراضی شالیکاری با رویکرد معیشت پایدار خانوارهای روستایی (مطالعه موردی: دهستان چوبر، شهرستان شفت)

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چکیده مبسوط

۱. مقدمه

امروزه در اراضی کشاورزی کشورهای مختلف، یکپارچه‌سازی اراضی با هدف افزایش تولید، کارایی و بهبود پایداری محصولات انجام می شود و یکپارچه سازی زمین یک ابزار مؤثر در برنامه های توسعه پایدار روستایی است. از همین‌رو، در سند چشم انداز توسعه بلندمدت ایران (افق توسعه ۱۴۰۴) اهدافی از قبیل بهره وری عوامل تولید، کاهش هزینه های تولید و اتلاف منابع، افزایش کارایی (نیروی انسانی و زمین)، به کارگیری بیشتر از ماشین آلات، افزایش بهره وری در مصرف آب، سهولت مبارزه با آفات، بیماری ها، کاربرد عقلایی نیروی کار (کاهش اتلاف وقت نیروی کار از طریق رفت و آمد بین قطعات) و اجرای الگوی مناسب کشت برای طرح های یکپارچه سازی اراضی پیش بینی شده است. لذا هدف این تحقیق پاسخ به این سوال اساسی است که: اجرای طرح یکپارچه‌سازی ارای شالیکاری در دهستان چوبر واقع در شهرستان شفت برمبنای متغیرها و شاخص های بدست آمده از تحقیق تا چه اندازه موفقیت آمیز بوده است؟

۲. مبانی نظری تحقیق

رویکرد اجتماعی در دستیابی به اهداف توسعه‌ای و بویژه طرح‌های مشارکتی همچون یکپارچه‌سازی اراضی بسیار قابل توجه است چراکه رویکرد مذکور بیش از همه بر نقش بخش داوطلبانه و مردمی، توسعه محلی و سازمان های اجتماع محور تأکید دارد. توسعه مبتنی بر سازمان های اجتماع محور فرایندی است که در آن گروه های اجتماعات محلی پیش قدم شده، سازماندهی و اقدام می کنند، تا به علایق و اهداف مشترک از جمله دستیابی به رفاه اجتماعی، حل مسأله و خروج از وضعیت فقر دست یابند. این فرایند در ارتقای کیفیت زندگی، متغیرهای اجتماعی به ویژه سرمایه اجتماعی نقش کلیدی ایفا می کند؛ چرا که هیچ توسعه ای بدون مشارکت محلی مردم، رضایتمندی و اعتماد اجتماعی شکل نمی گیرد. سرمایه اجتماعی همچون چسبی میان افراد جامعه همبستگی ایجاد می کند و منبع کنش های اجتماعی در عرصه های مختلف زندگی ازجمله حوزه های عمومی، از سطح محلی (خرد) گرفته تا سطح حکومت (کلان) می‌گردد. این سرمایه، جامعه را در برخورد با مسائل تواناتر می سازد و کاهش آن منجر به بروز مسائل و معضلات حاد اجتماعی می شود. از سوی دیگر، صرف تأکید بر اهمیت مشارکت در روند توسعهٔ روستایی دلیل کافی برای مشارکت روستاییان نیست زیرا مشارکت حداکثری روستاییان در روند اجرای طرح های توسعه‌ای، نیازمند شناخت ظرفیت ها و قابلیت ها و نیز شناخت درست ضعف های موجود در روستاها است؛ تا از این طریق بتوان با افزایش ظرفیت های فعلی زمینه را برای مشارکت حداکثری آنان فراهم نمود. اگرچه در انجام طرح های توسعه کشاورزی ظرفیت های فنی یکی از جنبه های کلیدی در توان سازگاری با محیط است، اما وجود نوآوری ها در کنار دسترسی روستاییان به آن ها و میزان مشاوره دریافتی در خصوص بهره‌گیری نوآوری ها (طرح یکپارچه سازی اراضی) نیز از مولفه های مهم در این امر به شمار می رود که علاوه بر پیشرفت فناوری و توسعه اقتصادی باید سرمایه اجتماعی و ساختار دولتی موجود نیز در نظر گرفته شود.

۳. روش تحقیق

روش انجام این پژوهش به صورت توصیفی و تحلیلی و از نوع کاربردی می باشد. روش گردآوری اطلاعات،کتابخانه ای و پیمایشی (مشاهده و پرسشنامه) است. منطقه مورد مطالعه در این پژوهش شامل ۱۱ روستا از مجموع ۳۵روستای دهستان چوبر می باشد که در آن ها طرح یکپارچه سازی اراضی از سوی مدیریت آب و خاک

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سازمان جهاد کشاورزی شهرستان شفت انجام گرفته است. تعداد خانوارهای دهستان چوبر که مشمول طرح یکپارچه سازی اراضی شده اند، ۱۱۳۷ بوده است که تعداد ۲۸۵ نفر از بهره برداران با روش مورگان انتخاب شدند.

۴. یافته های تحقیق

پژوهش در سطح ابعاد اقتصادی، اجتماعی و سنجش میزان موفقیت اجرای طرح یکپارچه‌سازی اراضی شالیکاری در دهستان چوبر نشان از موفقیت حد متوسط و بیشتر این طرح در منطقه موردمطالعه بوده است. اجرای طرح یکپارچه‌سازی در بهبود وضعیت شاخص‌های اقتصادی- اجتماعی خانوارهای روستایی در دهستان چوبر به گونه‌ای است که بیشترین همبستگی و ارتباط بین طرح با شاخص‌های اقتصادی به ترتیب در بکارگیری ماشین‌آلات، وضعیت زیربنایی اراضی، بهره‌وری و اشتغال خانوار، سهولت دسترسی به ماشین‌آلات و نیروی انسانی و درآمد بوده است. همچنین در سطح شاخص‌های اجتماعی به ترتیب برای اعتماد بین فردی و تعمیم یافته، مشارکت عینی، احساس امنیت کالبدی (فیزیکی)، خدمات بیمه‌ای، مشارکت رسمی،کاهش نزاع و درگیری و اعتماد نهادی به دست آمد. از سوی دیگر از دیدگاه کشاورزان در بین شاخص های اقتصادی- اجتماعی شاخص زیربنایی ایجاد شده توسط دولت و بکارگیری ماشین آلات بعد از اجرای طرح و سهولت دسترسی ماشین آلات و نیروی انسانی، اعتماد بین فردی و تعمیم یافته، دارای بیشترین اثرگذاری در اجرای طرح هستند.

۵. بحث و نتیجه‌گیری

با عنایت به یافته‌های پژوهش، اجرایی شدن طرح یکپارچه سازی اراضی شالیکاری در شهرستان شفت و منطقه موردمطالعه توانسته با وسعت بخشیدن به اراضی، ساخت جاده بین مزارع، بازشکل‌دهی و افزایش وسعت قطعات کشاورزی؛ بهبود بکارگیری از ماشین آلات کشاورزی، افزایش تولید، بهره وری در عوامل تولید و نهاده های کشاورزی را بهبود بخشد؛ که این خود منطبق با رویکرد اصلی پژوهش یعنی معیشت پایدار روستایی است که طرح یکپارچه سازی اراضی شالیکاری را یک فرایند اساسی در ارتباط با تغییر اندازه‌ی زمین از طریق یکپارچه کردن نسق زراعی بهره برداران می‌داند که می تواند با شناخت وضعیت معیشت خانوارها و میزان دسترسی آن ها به سرمایه های معیشتی و از حیث پایداری، وضعیت موجود منطقه مطالعه تحت تاثیر قرار دهد. در این بین، چنانچه نقطه نظرات و دیدگاه های بهره برداران لحاظ گردد، می تواند بخش کشاورزی که با بافت سنتی و با واحدهای بهره برداری کوچک دهقانی است را قادر به تأمین حداقل مواد غذایی موردنیاز جامعه نماید. در واقع، بکارگیری تکنولوژی های نوین در اجرای طرح، می تواند نقش مهمی در بهبود وضعیت زندگی بهره‌برداران داشته و در پی آن صرفه جویی در نهاده ها و کاهش هزینه های تولید و افزایش رضایتمندی کشاورزان و تمایل آن ها برای اجرای طرح در مزارع و افزایش اوقات فراغت، زمینه را برای افزایش ظرفیت های اجتماعی، فرهنگی، معیشتی را به حد مطلوب برساند که این خود تأثیرگذار در پیشبرد اهداف توسعه در روستاها بوده و در بهبود وضعیت اقتصادی و اجتماعی خانوارهای روستایی بسیار موثر و کلیدی تلقی می‌گردد.

کلیدواژه‌ها: اقتصاد پایدار روستایی، معیشت پایدار، یکپارچه سازی اراضی، دهستان چوبر، شهرستان شفت.

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Original Article

Evaluation of Barriers to Tourism Entrepreneurship Development in Rural Areas (Case Study: Tourism Target Villages - Chaldoran County, Iran)

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Abstract

Purpose- Development of the tourism industry in a proper way, followed by the promotion of tourism entrepreneurship, calls for adequate knowledge and understanding of the barriers and problems in this matter. In this regard, the present study tried to evaluate the barriers to the development of tourism entrepreneurship in tourism target villages of Chaldoran County.

Design/methodology/approach- The current study is descriptive-analytical in terms of nature and method, and applied according to its objectives. The statistical population in this study includes people living in villages targeted for tourism. To study this population, 212 questionnaires were arranged based on the modified Cochran's formula. Information and data were collected in 2018 using library and field studies (observation and completion of a questionnaire). After collecting information through questionnaires using simple random sampling, the data obtained after coding were analyzed by SPSS and Amos software applying descriptive and analytical statistical approaches.

Findings- The results showed that all the studied factors were effective in the failure of tourism entrepreneurship. Nevertheless, social barriers with a correlation coefficient of 1, physical and economic barriers with a coefficient of 0.91 had the greatest impact on barriers to tourism entrepreneurship in tourism target villages.

Practical implications- Rural tourism entrepreneurship, regarding the natural and cultural capacities in the villages, can play an important role in revitalizing the villages, creating employment and income for the people, protecting the natural, historical and cultural heritage, and finally providing integrated and sustainable rural development, because rural tourism is one of the types of tourism whose sustainable form in various economic, social and environmental dimensions, paves the way for achieving sustainable development of local communities.

Keywords- Rural tourism, Tourism entrepreneurship, Rural development, Entrepreneurial barriers, Tourism target villages, Chaldoran county.

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1. Introduction

Tourism has been introduced as one of the important economic activities in recent years as considerable leverage. Since we enter the 21st century, the trend of the New World in the tourism market has increased and the business order in tourism destinations causes ecological, social, cultural, and economic changes (Jaković et al., 2015). The astonishing growth of tourism has led to a systematic increase in the share of this industry in the GDP of countries (Najda-Janoszka & Kopera, 2014), and is considered as the main source of economic growth (Ashrafi & Hadi, 2019). In rural areas case, today rural tourism is a tool for rural revitalization (Jaafara et al., 2015). Rural tourism has become a new factor for rural development and enhanced the flow of tourists' arrival to these areas, which helps to improve the spatial and temporal distribution of these flows. Rural tourism has also strengthened the profitability of non-urban areas by increasing income, improving the quality of life of residents, infrastructure, and employment levels, and promoting other opportunities (Campón-Cerro et al., 2017). Indeed, tourism must become a strategy in rural development because it has an important place in diversifying the development of a sustainable local and regional economy (Mitchell & Hall, 2005).

One of the strategies introduced by planners for the development of rural areas is a hybrid strategy that includes practical concepts of entrepreneurship and tourism in these areas, which can be used to identify a critical amount of niche businesses and latent income (Karimzadeh et al., 2014). Rural tourism entrepreneurship has created a new path for investors, entrepreneurs, and state entities interested in this field by creating innovative and new solutions, and the emergence of creativity and entrepreneurship. According to many experts, this new path can be used as a new strategy to diversify the rural economy and sustainable rural development (Perales, 2002). In this approach, villagers bring together various factors of economic production and productivity in tourism and with creative efforts. They identify and exploit opportunities and create a new model of tourism-based activity, and bio-economy in rural areas. This leads to maximizing economic efficiency and minimizing bio-economic risk with a sustainable approach in rural areas (Rokniddin Eftekhari et al., 2014). In the Iranian economy, rural tourism can be considered as one of the areas of diversification of the rural economy due to environmental diversity and comparative advantages. In addition, as for various rural economic activities and income levels, agriculture has declined sharply in recent decades, and the rising unemployment rate resulted in the departure of the young and educated generation from the rural community, which is a menace to rural development. Supporting entrepreneurship in tourism, thus, the emergence of creativity and entrepreneurship in rural areas can get these areas out of recession, and isolation, and cause cultural diversity and rural development (Rostami & Ehsanifar, 2018). Notably, there are many drawbacks to entrepreneurial activity; in essence, the barriers and limitations of entrepreneurship in rural areas can be considered as individual, family, cultural-social, economic and managerial, structural, and environmental barriers (Roknoddin Eftekhari & Sojasi Gheidari, 2014). To this point, barriers to entrepreneurship development in rural areas should be identified and evaluated, and solutions should be provided to remove these barriers (Mehrdost & Yaghoubi, 2011). Since the study area has high capabilities and potential in the natural, economic, social, and cultural terms, especially natural potential and pristine landscapes, which can be considered as a special core of tourism in the region and cause entrepreneurship. Despite the importance of the issue, so far no comprehensive study has been conducted in the tourism target villages of Chaldoran County. Therefore, considering the necessity of the issue, this study evaluated the barriers to tourism entrepreneurship to clarify the aspects of the matter. Furthermore, using expressing strategies, it tried to improve tourism and the ensuing entrepreneurial activity. Therefore, according to the mentioned issues, the study sought to answer the question: what are the most important barriers and challenges to entrepreneurship development in the villages targeted by tourism in Chaldoran? With identifying the factors hindering rural tourism entrepreneurship in the county, the cognitive necessities are provided to the villagers, planners, and agents of the public and private sectors to remove the existing barriers wisely and provide tourism entrepreneurship in the study area.

2. Research Theoretical Literature

2.1. Entrepreneurship and Rural Entrepreneurship

The root of the word entrepreneurship is the French language and the verb “entreprendre”, which means "to commit" (Dadvarkhani et al., 2011). Entrepreneurship is the process of discovering and developing opportunities to create value through innovation and gaining that opportunity regardless of the human resources, capital, or position of the entrepreneur in an organization (Augusto et al., 2013). The concept of entrepreneurship has been studied deeply in a wide range of scientific perspectives in various fields from psychology to economics (Rezaei, 2014). Psychologists consider the existence of certain characteristics as a necessary condition for the emergence of entrepreneurship. In the middle of the twentieth century, they turned their attention to the individuals. In their view, the specific and unique characteristics of an entrepreneur lead to his success (Bennett & Dann, 2000). After sociologists and other management thinkers commenced to study entrepreneurship, socio-cultural theories and social network theory were formed. Behavioral-psychological characteristics of entrepreneurs are considered in behaviorist theories for entrepreneurship development. Their psychological characteristics and necessary conditions for the emergence of entrepreneurial development are mentioned risk-taking, desire for independence, ambiguity tolerance, high self-confidence, internal control, creativity and ideation, self-confidence, idealism, selfishness, and futurism (Hrivnak & Sherman, 2010).

In economic systems, Richard Cantillon first used the concept of entrepreneur. Its definition has not yet been accepted by all experts completely. Nevertheless, Schumpeter’s theory and definitions of entrepreneurship and the role of entrepreneurs in the development process are agreed upon and referred to by most researchers. According to him, the entrepreneurial process is an important factor in economic development and entrepreneurs are the key to economic growth. Promoting entrepreneurship is recognized by all countries as a key policy for job creation and innovation in products, production processes, and organizations (Li et al., 2019). Heisrich et al. content that the entrepreneurial process is creating something new that takes a lot of time, effort, and acceptance of financial, psychological, and social risks to obtain financial resources, personal satisfaction, and independence. The result of this process is obtained from regular activities that link creativity and innovation with market needs and opportunities (Saeedi Kia, 2003).

Rural entrepreneurship is not different from the general concept of entrepreneurship. Only the special conditions of rural areas, namely higher risk, lack of facilities, and poor management, make entrepreneurship different in these areas from elsewhere (Rahmani et al., 2018). From Worthman’s point of view, rural entrepreneurship can be defined as a new organization that introduces a new product, exploiting or creating a new market, or using a novel technology in the environment (Ahmad et al., 2012). The role of entrepreneurship in rural development is significant due to the combination of the three main forces of resource mobilization, creativity, and the use of unique opportunities (Izadi & Barzegar, 2013). Politicians consider it as a key strategy to prevent rural disruption, farmers regard it as a tool to improve farm incomes, and women see it as an employment opportunity near their home that provides them with independence and needs, which reduces social support (Petrin, 1994). Rural entrepreneurship is regarded as the most appropriate strategy for responding to challenges, especially economic ones, in rural areas, which encourages villagers to turn to “home-based businesses” in an entrepreneurial manner (Henderson, 2002). Therefore, according to the points mentioned and the opportunities that this type of entrepreneurship creates in the rural community, it can be said: Entrepreneurship can solve economic and social challenges, hence the development of rural areas (Heidari Sareban, 2012). In addition, according to scholars, entrepreneurship development in rural areas is one of the most crucial rural development strategies that can support and maintain rural cultural heritage, reduce the use of natural resources, minimize waste of resources, maintain environmental quality, and protect biodiversity (Lordkipanidze et al., 2005).

2.2. Rural Tourism Entrepreneurship

Today, rural tourism is one of the most popular forms of tourism. Although attractions, facilities, and capabilities for tourism development in Iranian rural areas are very diverse and extensive, these attractions are not well known and introduced and have not been exploited properly. Tourism industry experts believe that Iran is one of the top ten countries in the world in terms of tourism capacity, while Iran's share in the tourism

industry is very small from the earnings of international markets. With a little reflection, we can understand the fact that the tourism industry in Iran, despite the way it should be, has not been successful in increasing income and improving the conditions of the national economy and regions (Yasouri & Watankhah, 2015). Tourism is one of the economic sectors that requires a high degree of participation in entrepreneurial activities. To meet the growing demand and different needs of tourism, we need a variety of tourism services and products (Lordkipanidze et al., 2005).

Tourism Entrepreneurship encompasses various business activities carried out by companies operating in micro and macroeconomics, and a wide range of tourism services are subject to provide such as hotels, transportation, food services, guest houses, travel agencies, tour guide, leisure, entertainment services, health and fitness clubs, production and trade of works of art and handicrafts, sports tourism, local museum garden, etc. Addinsal (2012) defines a tourism entrepreneur as the creator of a financially or non-financially motivated tourism company seeking to discover an entrepreneurial opportunity. Tourism entrepreneurs are those whose business is based on profitability and seeks to meet the needs of tourists (Bagherifard et al., 2013). Tourism entrepreneurs create balance. On the one hand, they establish direct and close contact with local communities and customs and traditions in the tourism region, and on the other hand, they can turn high-quality local resources into tourism goods and services (Rusu et al., 2012).

Rural tourism development is an appropriate measure to support and stimulate entrepreneurship by exploiting the local potential and rural capital in an endogenous development process, instead of supplying them (Asgari et al., 2018). Entrepreneurship in rural tourism is recognized as a central force for economic development because it leads to growth, innovation, and change (Nemirschi & Craciun, 2010). In other words, compared to other sectors of the rural economy, tourism-related activities have a high ability to diversify the rural economy and increase the attraction of micro capital. Based on the experiences of developing countries, in rural areas with tourist attractions, this will result in the development of infrastructure by the government and consequently accelerate the employment and alternative income and improve the level of welfare and living standards (Dinis, 2011). Tourism attracts money and population from urban and industrial centers to villages and natural places (Rezaei, 2017). Tourism can facilitate the development of the entrepreneurial process. Compared to other sectors, tourism can use more labor for each investment unit. In other words, tourism is more user-friendly than other sectors and raises the level of employment. The tourism industry employs people with various skills and is one of the effective ways to eliminate unemployment (Arbabyan et al., 2014). In less developed areas, including rural areas, tourism development, first of all, should meet the economic needs of residents. Poverty and unemployment are the two main problems in these areas, and the development of tourism activities should be able to reduce these issues. The prosperity of tourism in rural areas can help in the formation of a supportive environment as well as basic infrastructure, etc., which can ultimately lead to the development of entrepreneurship. Therefore, it can be said that with the prosperity of tourism, a motivational and supportive environment is provided for potential and actual entrepreneurs. The development of rural tourism, on the one hand, can lead to economic growth and diversity of activities, and on the other hand, create employment and income for rural residents by attracting surplus labor, which is one of the opportunities for comprehensive rural development (Rezaei, 2017). Therefore, rural tourism entrepreneurship, regarding the natural and cultural capacities in the villages, can play an important role in revitalizing the villages, creating employment and income for the people, protecting the natural, historical and cultural heritage, and finally providing integrated and sustainable rural development (Kord & Abtin, 2013). Because rural tourism is one of the types of tourism whose sustainable form in various economic, social, and environmental dimensions, paves the way for achieving sustainable development of local communities. Therefore, achieving this requires the design, rationalization, and application of a strategic model, along with appropriate and specific strategies in these areas by tourism planners and managers (Aazami et al., 2015). Regarding these, the location of villages that have special historical, cultural, or natural attractions is of great importance. Villages which are known as “tourism target villages” in Iran have many capabilities to attract tourists and improve the livelihood of villagers, which with proper planning and management can provide the grounds for growth and development of rural communities.

2.3. Effective Barriers and Limitations in Rural Entrepreneurship

Some of the barriers to innovation and creativity in society are due to the unfamiliarity of societies with different roles of individuals and the lack of encouragement and support for pioneers and supporters of innovation. Some of these barriers and problems related to this are: not accepting and encouraging, funding business plans, undesigned plans, lack of free time to think about new ideas, getting stuck in bureaucratic procedures, reviewing and responding to a proposal and new ideas for approval, lack of quick response to new ideas and suggestions and lack of suggestion system, lack of a system of patenting, lack of common vision for innovation, lack of communication and cooperation of R&D units with customer and market research, aggression, tension, dissatisfaction, isolation of senior managers, lack of access to reliable, transparent, relevant and timely information, mechanical structure, employees ignorance of management expectations from the creativity of each individual in the organization, and confidence that innovation and creativity are easily achieved (Hoseini, 2015).

According to Mark Lee, the barriers to rural entrepreneurship are entrepreneurship nonsupporting culture, distance from markets and services, access to capital, reduced networking and communication opportunities, and a lack of industrial clusters that accelerate innovation (Roknoddin Eftekhari & Sojasi Qeidari, 2014). Furthermore, from another point of view, it can be stated factors that affect entrepreneurial barriers among the labor: Lack of capital, expertise, and confidence, difficulty, and unwillingness to spend money (Eskandarini, 2014). Studying on entrepreneurial barriers in a report published in 2003, the European Entrepreneurship Cooperative has divided the main barriers to entrepreneurship in Europe into three general categories: 1. corrective and adjustment barriers (such as executive barriers to entry), 2. cultural and social barriers (such as fear of failure and lack of entrepreneurial skills and knowledge) and 3. financial and economic barriers (such as excessive stress on venture capital, early-stage financing, and long-term financing) (Suhir & Kovach, 2003). Aldrich & Martinez (2001) and Lou and McMillan (1998) believe that there are many barriers to entrepreneurship. Therefore, for the success of entrepreneurship in rural areas, we must pay attention to how entrepreneurs use their knowledge, resources, and networks to be able to enter the new environment (Chambers & Shaw, 2004). Barriers and limitations of entrepreneurship in rural areas can be considered as individual, family, sociocultural, economic and managerial, structural, and environmental barriers.

Individual barriers: Entrepreneurship as human behavior (lifestyle) is distinguished from merely reflective behaviors (reaction). Because entrepreneurs have a specific mental image for their behavior according to individual characteristics, and this factor emphasizes more on internal and mental criteria. The low level of literacy of villagers and the existence of inflexible behaviors among them are considered individual barriers to rural entrepreneurship (Hoseini, 2015).

Family barriers: The family is one of the most important elements in shaping the personality of children. Families who have the spirit of support, understanding, encouragement, etc., have a high ability to nurture future entrepreneurs. However, in some cases, barriers come in the form of different variables such as income level, social class, and living space.

Sociocultural barriers: Culturally, entrepreneurship in rural areas may in some cases face resilient and severe barriers and local people may not be able to understand innovation. Nonetheless, it has been told that increasing awareness and the spread of science and knowledge, gradually removes these obstacles. In rural areas, the development of schools, vocational schools and vocational courses, promotion, etc., have a very effective role in the intellectual development of entrepreneurship in society as well as the tendency towards innovation and creativity. In this regard, to remove the existing obstacles, a set of supportive functions, education through mass media, creating mutual understanding in the society for accepting entrepreneurs, etc., are needed (Hoseini, 2015).

Economic barriers: Kent (1992) introduced economic barriers to the growth and development of entrepreneurship in the lack of demand, high taxes, inflation, lack of access to resources, and rigid rules and regulations to start new activities and political stability (Samad Aghaei, 2003).

Managerial, structural, and environmental barriers: One of the tasks of managers is to use the initiative, creativity, and innovation of the villagers, which is based on local knowledge and experience and created a kind of economic, social, environmental, and institutional reconstruction in the whole geographical, local- spatial in rural areas. This will result in the acceleration of national development and reduce development gaps at the spatial level. Managers can

create a dynamic and vibrant rural community by encouraging and supporting new and innovative ideas. Therefore, the challenges facing rural entrepreneurs are:

Remote and small villages: Lack of communicative infrastructure is a major problem for rural entrepreneurs and economic actors in accessing markets and technical knowledge.

Access to capital: In most rural areas, capital is organized, markets are inefficient, and lack of information and high costs impose constraints on rural entrepreneurs.

Access to technical knowledge: One of the most important challenges for rural entrepreneurs, despite the high and rapid advancement of technical knowledge is access to technical knowledge like the Internet, as today the Internet can be considered a key part of supporting the economic development of rural communities.

Low skills: Rural entrepreneurs have limitations in many areas, especially new methods of production and services such as tourism and distribution. To develop, they need the knowledge and awareness needed to innovate. Successful rural entrepreneurs usually have high knowledge (Eftekhari & Sojasi Gheidari, 2014).

2.4. Literature Review

Many studies have been conducted in the field of entrepreneurship and tourism entrepreneurship so far, which according to the purpose and subject matter of the research, some are reviewed. In their studies, Egbe et al. (2013) concluded that the most important strategy for entrepreneurship development is to develop and support the professional skills of individuals. Bagherifard et al. (2013) mentioned that the most important obstacles to tourism entrepreneurship in Mazandaran Province are lack of infrastructure, insufficiency of laws and policies related to tourism, lack of communication between different organizations involved, economic problems, and international sanctions. Hosseini et al. (2019) in a study on the analysis of barriers to rural tourism to achieve sustainable development of the rural economy with an entrepreneurial approach (Case study: Kiar County - Chaharmahal and Bakhtiari Province) stated that the lack of access to infrastructure and public facilities for tourism development, cumbersome laws in starting tourism-oriented businesses, cultural weakness, public distrust of officials and managers to engage in tourism entrepreneurial venture, lack of consulting institutions, low risk of people to enter tourism activities and strict environmental laws are obstacles to the realization of rural tourism in Kiar County. Rezaei et al. (2016) in a study on identifying barriers to development tourism entrepreneurship (a case study of Marvdasht County) stated that the main obstacles to the development of tourism entrepreneurship in Marvdasht County are: Political-governmental, infrastructural, advertising-promotional, value-cultural, natural, and educational barriers. Alizadeh Azar et al. (2015) in an analysis of tourism development and major barriers to a tourist attraction in cities (a case study Mahabad) stated that legal barriers, economic barriers, and physical, natural, and geographical barriers are three serious problems in the development of urban tourism in Mahabad County. In other words, legal obstacles (regulations) are the most important obstacles in the development of urban tourism in the city, followed by physical, natural, and geographical barriers. In addition, economic barriers, barriers to education and landscaping, cultural barriers, and lack of sufficient attractions are the most important barriers to tourism development and attracting urban tourists of Mahabad. Farahani & Manouchehri (2015) in identifying obstacles and problems of tourism development in rural areas targeted for tourism in the west of Marivan County stated that there is the low quality of services, existing facilities and weakness in infrastructure, weakness of transportation structures, lack of advertising, information and education along with problems related to the attractions of the region in the supply side, low motivation and desire of visitors to stop for a few days in the demand side. Regarding external factors, lack of public participation and shortcomings mentioned by public organizations, are the most important obstacles and problems facing the dynamics of villages. Rezaei & Asadpaski (2015) in an article entitled analysis of tourism development problems in rural areas of Qazvin Province, Case study: Gazerkhan, using factor analysis, stated that the problems of tourism development in Gazarkhan village are explained with 67.33% variance by four factors: information-support, infrastructure, motivation-cognition and socio-cultural. Latifi et al. (2013) research show that the most important obstacles to tourism development are infrastructure, culture, planning, and management, as well as information and advertising, while the findings of Azmi & Razlansari (2014) suggest the positive effect of tourism target villages plan on rural infrastructure and the necessary grounds for tourism development.

3. Research Methodology

3.1. Geographical Scope of the Research

Chaldoran County is located in the northwest 224 km far from the center of West Azerbaijan Province (Urmia) and has a common border with Turkey about 144 km from the north and northwest. This county is limited to Mako and Shut Counties from the east, to Khoy and Chaipareh Counties from the south, (figure 1). Chaldoran County with an area of 1991 square kilometers covers 5.3 percent of the province. According to the 2016 census, it has a population of 45060. This county has 2 cities, 2 districts, 5 rural districts, and 165 inhabited villages (above 3 households).

Villages targeted for tourism are one of the capacities of Chaldoran County to attract domestic and foreign tourists. Each of these villages has unique natural and historical features that can be a factor in attracting tourists (table 1). Chaldoran is one of the tourist areas of West Azerbaijan Province due to its relatively cold weather in winter and cool weather in summer. This city is one of the highest cities in the country. Various marshlands and lagoons are natural features of this county. From the natural landscapes and other historical monuments of this city to the Monastery of Saint Thaddeus or Qarah Church, which is the tomb of one of the apostles. The building, which is registered in the list of historical monuments of the world, has a long history. The county of Chaldoran has historical importance due to the wars of Shah Ismail the first with Sultan Salim, the Ottoman emperor. The former name of Chaldoran was "Qarah Eini" and then due to the passage of a river through the center of the city called "Qarahsu Qarablagh" (Siah Cheshmeh).

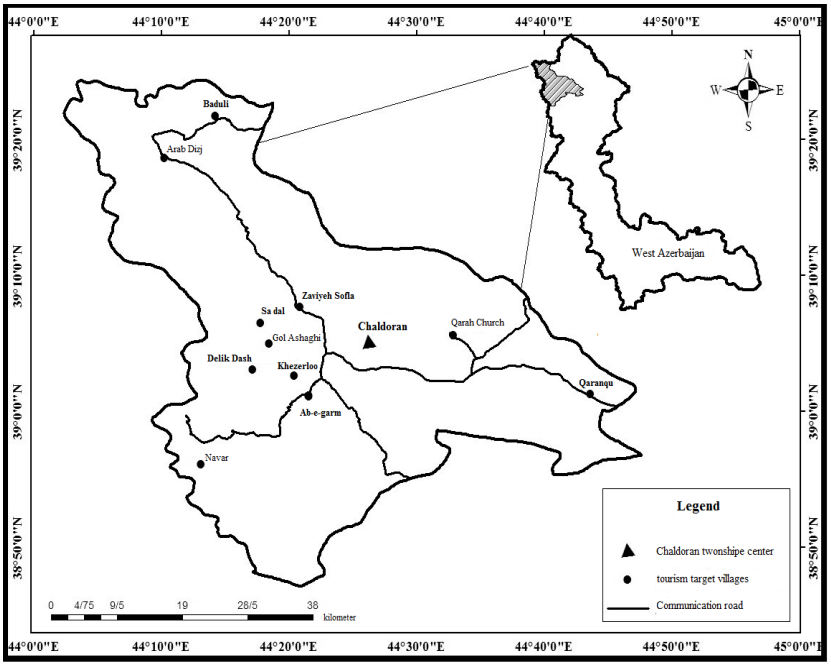

Figure 1. Location of the area in the province
(Source: Deputy of Statistics, Information and GIS, 2018)

Table 1. Characteristics of tourism target villages in Chaldoran County

Village	Rural District	Type of tourist attraction
Sa dal	North Chaldoran	Tomb of Sayyid Sadr al-Din, Sakhrei Church
Khezerloo	South Chaldoran	Chehel Peleh Cave
Delik Dash	South Chaldoran	Dakhmeh Sangi
Baduli	North Avajiq	Basaltic Charters
Arab Dizj	North Avajiq	Arab Dizj waterfall
Navar	South Chaldoran	Lagoon
Kandi Church	Baba Jik	Qarah Church (Monastery of Saint Thaddeus)
Qaranqu	Baba Jik	Shar Shar waterfall

Village	Rural District	Type of tourist attraction
Ab-e-garm	South Chaldoran	Mineral Hot springs
Zaviyeh Sofla	North Chaldoran	Lagoon and Mineral Hot springs

3.2. Methodology

The type of study is applied and method is descriptive-analytical. Library and field studies (observation and completion of a questionnaire) were used to collect the required data. The validity of the questionnaire was confirmed by a group of experts and then the reliability of the questionnaire was examined using Cronbach's alpha, which the calculated alpha (Cronbach's alpha 0.85) verified high reliability for the questionnaire. After collecting data through questionnaires using simple random sampling, the data was analyzed by SPSS and Amos softwares applying descriptive and analytical statistical approaches.

Factor analysis was used by researchers in two ways. On the one hand, by using this type of model and testing them based on experimental data, evidence can be obtained for the validity of the scales defined by the researcher. Therefore, one of the main purposes of their application is to build standard scales scientifically. On the other hand, they act as part of structural equation models in the role of measurement models. In confirmatory factor analysis, the researcher follows his study based on a predetermined factor structure and tries to test the accuracy of the factor structure of a set of observed variables (Farahani, Hoseini, & Bayazidi, 2018). This technique allows the researcher to test the hypothesis that there is a relationship between observed and latent variables. Therefore, based on this technique, the researchers must first formulate a theoretical model by examining previous theories and studies alongside their view, so that in practice he can test it as an experiment (figure 2).

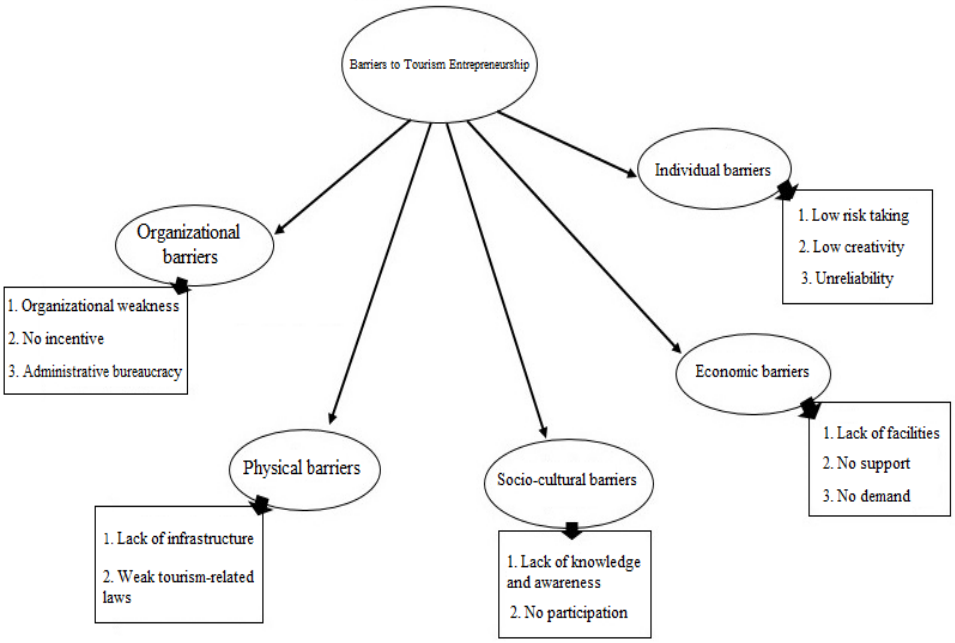

Figure 2. Theoretical literature

The statistical population of the present study includes people living in the villages targeted for tourism in Chaldoran County. According to the population and housing census in 2016, 1261 households with a population of 4358 live in these 10 villages. The villages are all included and the modified sample size for the villages was determined using the modified Cochran's formula. Finally, the selected sample estimated 212 samples. To select the sample size within each village, the stratified random sampling method was used. That is, each village was placed on the same stratum based on the number of households living. Regarding this, the sample size in for each stratum (group of villages) is selected and is shown in (table 2).

Table 2. Determining the sample size in villages
(Source: Statistics Center of Iran, 2018)

Village	Population (2016)	Households (2016)	Number of samples for each village
Sa dal	1092	322	53
Khezerloo	416	140	20
Delik Dash	350	83	17
Baduli	426	127	21
Arab Dizj	629	183	31
Navar	300	72	15
Kandi Church	132	35	6
Qaranqu	473	153	23
Ab-e-garm	133	34	6
Zaviyeh Sofla	407	120	20
Total	4358	1269	212

3.3 Variables and Study Indicators

To operationalize the study for analyzing the barriers to rural tourism entrepreneurship, indicators and variables in five economic, social, physical, organizational and individual dimensions were prepared and categorized as described in (table 3).

Table 3. Operational definition of research variables

Row	Indicator	Abbreviation	Variable
Individual barriers	Low risk taking	X1	- Preference of traditional methods to new methods - Reluctance to take calculated risks - Fear of being a initiator and pioneer - Do not enjoy financial and personal risk - Escape from difficult situations
	Low creativity	X2	- Inability to discover and integrate new ways and methods to solve a problem - Reluctant to starting new jobs, - Tendency to blend in with other people
	Unreliability	X3	-Uncertainty about the performance of a project or plan
Economic barriers:	Lack of facilities	X4	- Barriers to obtaining banking facilities (guarantee, natural and legal cosigners) - Lack of necessary and specific capital to create entrepreneurship in the field of tourism-related activities - Lack of support for micro local investors (lack of credit, insurance, etc.)
	No support	X5	- Heavy taxes for investors in line with tourism activities for entrepreneurship - Targeting subsidies, increasing fuel prices, its negative impact on the flow of travel and tourism
	No demand	X6	- Insufficient facilities and products for sale and presentation to tourists (gap between supply and demand) - Lack of demand for local products by tourists
Social barriers	Lack of knowledge and awareness	X7	- Lack of awareness of indigenous and local people about their cultural values - Lack of people's knowledge about the rules and regulations for launching production-service activities related to tourism - Lack of sufficient skills of people to perform production-service activities related to tourism - Lack of knowledge of villagers about the needs of tourists - Weak culture propriety among the local people to tourists - Lack of local or regional programs for rural tourism

Row	Indicator	Abbreviation	Variable
	No participation	X8	- Inadequate participation of local peoples in tourism activities with emphasis on the mechanism of education - Inadequate participation of local organizations and people in the preparation and implementation of tourism programs - Lack of participation and communication between producers and people in the local community - Lack of public organizations and NGOs
Physical barriers	Lack of infrastructure	X9	- Lack of infrastructure related to the business environment (water, electricity, gas) - Lack or low quality of welfare facilities (toilets, catering facilities at attractions) - Limited infrastructure for marketing (distribution, processing, vehicles, information)
	Weak tourism-related laws	X10	- Insufficient support of government agencies and organizations for the development of activities related to tourism entrepreneurship - Lack of plans and programs implemented in the region by the government for tourism to promote entrepreneurship - Weakness of business laws (licenses and regulations)
Organizational barriers	Organizational weakness	X11	-Organizations' attitude towards tourism and entrepreneurship issues -Lack of specialized and experienced personnel in the field of tourism in the sectors -organizations and institutions related to entrepreneurship and tourism - Lack of entrepreneurship-related organizations to advise and guide in starting a new enterprise
	No incentive	X12	- Lack of government incentives for entrepreneurs in rural tourism -Lack of coordination between organizations in helping entrepreneurs (such as tourism organizations, banks, etc.) - Organizations and banks priority to get short-term and immediate profits for issuing licenses and granting facilities -Insufficient support of government managers of related organizations for entrepreneurship
	Administrative bureaucracy	X13	-Multiple decision-making centers and lack of coordination between them - Lack of trust of officials in local people - High level of administrative bureaucracy

4. Research Findings

In this study, 212 questionnaires were evaluated, the descriptive findings of the study show that 71.6% of the respondents were men and 29.4% were women. Responsible people are in the range of 20-50 years old. The highest percentage of age among respondents in the city is related to the age group of 30-40, which includes 37.8% of respondents. 72.6% of them are married and 27.4% are single. In terms of eduction status, 38% of respondents had a diploma.

In order to evaluate the effective barriers in the development of rural tourism entrepreneurship in the tourism target villages of Chaldoran County, factor analysis was used. In this regard, based on the theoretical model of the research, 13 observed variables (indicators) in the form of five latent variables (factors) including 1. Individual barriers 2. Economic barriers 3. Socio-cultural barriers 4. Physical barriers 5. Organizational barriers were considered. The latent variables, in turn, are influenced by another hidden factor (barriers to tourism entrepreneurship) (figure 3).

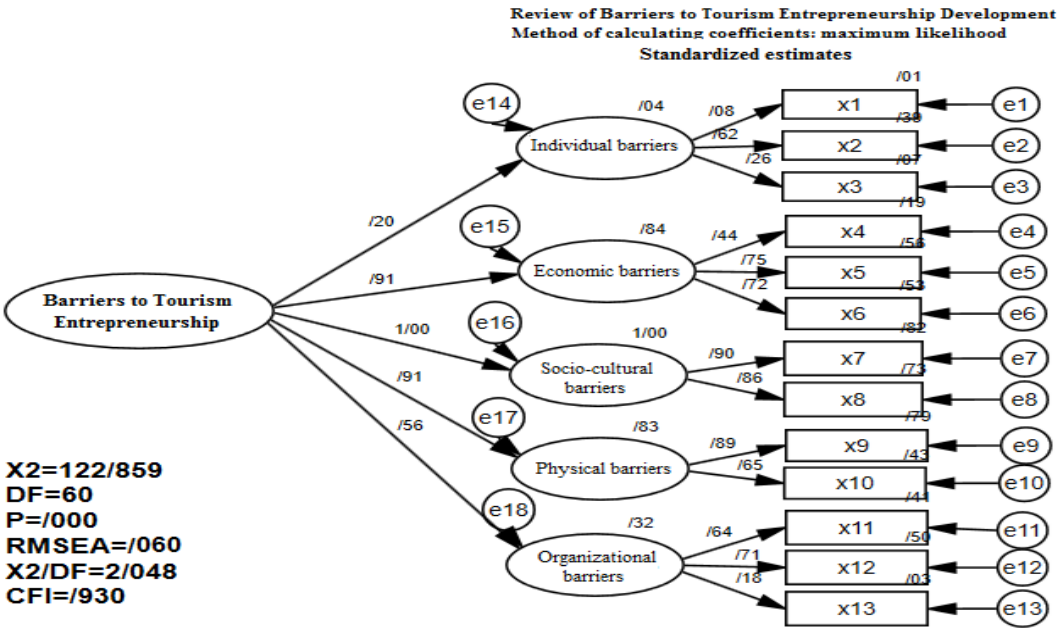

Figure 3. Factor analysis

The results of factor analysis in (figure 3) show that the chi-square value (X2) is obtained to fit the model of 122/856 with a degree of freedom of 60. In addition, considering that the value of RMSEA statistic is equal to 0.06, it indicates a good fit in the model. Due to the fact that the obtained model had the necessary structural validity and reliability, therefore, the model was tested and the model fit indicator were examined.

Table 4. Results of the degree of compliance of the measurement model with the fit indexes

Fit index	Suggested criteria	Research output
Chi-square/Degree of freedom	Less than 0.3	2.048
Comparative fit index (CFI)	Greater than or equal to 0.9	0.93
Incremental fit index (IFI)	Greater than or equal to 0.9	0.93
Root Mean Square Error of Approximation (RMSEA)	Smaller than 0.1	0.06

The results are shown in (table 4). The value of chi-square with a degree of freedom of 2.048 is less than 3, and since the comparative and incremental fitness index of their value fluctuates between zero and one, and the closer it is to one, the model fit is more acceptable. Moreover, our model shows that the items of each structure can be be explained by of their structures.

The covariance, or correlation coefficient, between each observed variable and the latent variable loadings (which is the same as the factor loadings) indicates what percentage of the observed variance is counted by the variance of the latent variable. As the results suggest, among the individual conditions, lack of creativity (X2) with a correlation coefficient of 0.62 has the highest weight in the latent variable of individual barriers. Among the three variables of economic barriers (lack of facilities, lack of support and lack of demand), lack of support (X5) have the highest and lack of facilities (X4) have the lowest correlation coefficient. Also, lack of knowledge and awareness (X7) with a score of 0.9 had the highest correlation coefficient in the socio-cultural barrier dimension. In the hidden variable, physical barriers had the highest correlation with the lack of infrastructure with a coefficient of 0.89 and in the variable of organizational barriers, the lack of incentives (X12) had the highest correlation with a coefficient of 0.71. Also, all five dimensions have a positive correlation coefficient with barriers to tourism entrepreneurship, which shows

the direct effects of the mentioned factors with the barriers of tourism entrepreneurship in the villages targeted for tourism.

5. Discussion and Conclusion

The expansion of the tourism industry is one of the main tools of development in any area, especially in rural areas. Since tourism mainly involves small economic businesses, the role of tourism entrepreneurs in the development of rural tourism is evident. Thus, encouraging and promoting entrepreneurship leads to the development of rural areas. Research experience in many countries has shown that diversifying the rural economy and identifying alternative strategies, such as tourism, creates numerous job opportunities in rural areas. Tourism attracts money and population from urban and industrial centers to villages and natural places. The purpose of any research is to achieve solutions and goals that are examined in order to improve or develop the cases and dimensions of the research process. The present study, while identifying and evaluating the most important barriers to tourism entrepreneurship in Chaldoran County, by presenting practical suggestions, outlines the conditions that can determine the development of tourism entrepreneurship in the region. In this regard, according to the data collected and the items studied in this study, the results indicate that all five dimensions have been effective as barriers in creating development and improving entrepreneurship in tourism targeted villages. Most of the barriers to entrepreneurship in the study area are related to the social and cultural dimension, which explains a hundred percent of the variance of the latent variable (barriers to tourism entrepreneurship). This is due to the lack of knowledge and awareness of people about their cultural values and the weakness of culture, as well as the lack of cooperation between local people and relevant organizations in attracting tourists as a service-production activity. Hosseini et al. (2019), Rezaei & Asadpaski (2015), Ghobadi et al. (2012) and Rezaei et al. (2016) also found similar findings in their research. The correlation coefficient of economic and physical status is also high. It explains 0.91 variance. They have performed poorly in this area, due to inadequate infrastructure, welfare facilities, health, catering, lack of supply and demand and banking facilities and the weakness of organizations in developing laws related to tourist attraction and entrepreneurship. They have not been able to provide facilities and conditions for the region to improve entrepreneurial conditions, to some extent. In confirmation of the findings of this study, Ghobadi et al. (2012), Bagherifard et al. (2013), Farahani & Manouchehri (2015) and Rezaei et al. (2016) have mentioned the weakness of infrastructure as one of the obstacles of the development of tourism entrepreneurship. Organizational factors with a correlation coefficient of 0.56 indicate the importance of the role of organizations and supporting people in the process of attracting tourists and creating entrepreneurship. Then the lowest correlation coefficient is related to individual factors which explains only 0.20 of the variance of the latent variable. This is due to the lack of risk and low creativity and confidence in the success of people in creating new businesses, and entrepreneurial activities. This part of findings is in line with the findings of Ghadiri Masoum et al. (2014) and Hoseini (2015).

Rural tourism can lead to economic diversity in rural areas. Moreover, creating employment and income, they cause the development of rural areas. Because tourism is one of the fastest growing industries. Along with tourism expansion, new demands and needs arise and also the demand for existing goods, services and facilities increases. This will create new businesses and increase the entrepreneurial spirit among the villagers. Thus, the tourism boom makes the rural environment economically dynamic and, in fact, the rural environment becomes an inspiring environment for entrepreneurship, hence, income improvement for villagers. As a result, infrastructure, welfare and service facilities are expanded, which attract more tourists to the destinations, and as a result of tourists' interaction with local people, cause changes in their culture. Therefore, the following suggestions are offered for the improvement and development of tourism entrepreneurship and hopefully the elimination of barriers, which can lead to the development of villages as well as the region:

- Accurate identification of the region's capabilities in the field of tourism and introducing them to the people, as well as improving and developing welfare facilities and infrastructure to attract and comfort tourists.

- Encourage local people and private sector investors to invest and start entrepreneurial businesses in the target villages of tourism in Chaldoran County through considering tax exemptions and granting long-term loans with low interest rates, etc. By government officials and rural planners.
- Establishing markets for the supply of cultural products, handicrafts, local foods and snacks to identify indigenous and local people to their cultural values by the Cultural Heritage Organization and those in charge of the entrepreneurship sector.
- Investing in training entrepreneurs and providing entrepreneurial infrastructure, to acquire skills for production and services activities related to tourism.
- Developing appropriate supporting laws and regulations to coordinate between organizations in helping entrepreneurs (tourism organizations, banks, etc.).
- Organizational support, including information support through the necessary training on management and entrepreneurship skills needed to help the region to succeed in tourism business.
- Holding various training courses for local people regarding to deal with tourists and the means of attracting them, launching entrepreneurial tourism enterprises, and making ideas and entrepreneurship skills.

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Original Article

ارزیابی موانع توسعه کارآفرینی گردشگری مناطق روستایی (مطالعه موردی: روستاهای هدف گردشگری شهرستان چالدران)

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چکیده مبسوط

۱ -مقدمه

امروزه گردشگری روستایی ابزاری برای تجدید حیات روستایی است. گردشگری روستایی میزان سوددهی مناطق غیر شهری را از طریق افزایش درآمد، بالابردن کیفیت زندگی ساکنین، بهبود زیرساخت‌ها و سطح اشتغال و ارتقاء دیگر فرصت‌ها تقویت نموده است. موانع زیادی در راه فعالیت کارآفرینانه وجود دارد؛ اصولا موانع و محدودیت‌های کارآفرینی در مناطق روستایی را می‌توان شامل موانع فردی، خانوادگی، فرهنگی ـ اجتماعی، اقتصادی و مدیریتی و ساختاری و محیطی دانست. بنابراین باید موانع توسعه کارآفرینی در روستاها را شناسایی و بررسی کرد و راهکارهایی را برای رفع این موانع ارائه کرد. از آنجایی که منطقه مورد مطالعه از توانمندی‌ها و پتانسیل‌های بالایی در زمینه طبیعی، اقتصادی، اجتماعی و فرهنگی به ویژه توان-های بالقوه طبیعی و مناظر بکر و دست نخورده برخوردار است، می-تواند به عنوان یک هسته خاص گردشگری در منطقه مطرح و باعث کارآفرینی در این زمینه شود.

۲- مبانی نظری

کارآفرینی در توسعه روستایی به دلیل ترکیب سه نیروی اصلی بسیج منابع، خلاقیت و استفاده از فرصت‌های منحصر به فرد درخور توجه است و به عنوان یکی از پایه‌های توسعه اقتصادی روستایی نیز از آن یاد می‌شود . از دیدگاه مارک لی، موانع کارآفرینی روستایی عبارت‌اند از: فرهنگی که توانایی حمایت از کارآفرینی را ندارد، فاصله با بازار و خدمات، شکاف در دسترسی به سرمایه، کاهش فرصت‌های شبکه‌ای و ارتباطی و نبود خوشه‌های صنعتی که تسریع نوآوری باشد. کارآفرینی گردشگری روستایی با توجه به ظرفیت‌های طبیعی و فرهنگی موجود در روستاها، می‌تواند در تجدید حیات روستاها، ایجاد اشتغال و درآمد برای روستاییان، حفاظت از میراث طبیعی، تاریخی و فرهنگی و در نهایت توسعه یکپارچه و پایدار روستایی نقش مهمی ایفا کند.

۳-روش تحقیق

نوع پژوهش کاربردی و روش‌شناسی مورداستفاده توصیفی- تحلیلی می‌باشد. برای گردآوری داده‌های مورد نیاز از مطالعات کتابخانه‌ای و میدانی (مشاهده و تکمیل پرسشنامه) استفاده شده است. به منظور تحلیل موانع کارآفرینی گردشگری روستایی ابتدا شاخص‌ها و متغیرهایی در پنج بعد اقتصادی، اجتماعی، کالبدی، سازمانی و فردی تهیه، و سپس بر این اساس پرسشنامه تدوین شد.روایی پرسشنامه توسط گروهی از متخصصین مورد تأیید قرارگرفته و سپس با استفاده از آلفای کرونباخ پایایی پرسشنامه مورد بررسی قرار گرفت که آلفای محاسبه شده (آلفای کرونباخ ۰/۸۵) پایای بالای پرسشنامه را نشان می‌دهد. پس از جمع‌آوری اطلاعات از طریق پرسشنامه، داده‌های به‌دست‌آمده پس از کدگذاری، از طریق نرم‌افزار *spss* و *Amos* با استفاده از روش‌های آماری توصیفی و تحلیلی مورد تجزیه‌و تحلیل قرار گرفت.

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۴- یافته‌های تحقیق

به منظور ارزیابی موانع مؤثر در توسعه کارآفرینی گردشگری روستایی در روستاهای هدف گردشگری شهرستان چالدران از تحلیل عاملی استفاده شده است. در این راستا بر اساس مدل نظری تحقیق ۱۳ متغیر آشکار (شاخص) در قالب پنج متغیر نهفته (عامل) شامل ۱) موانع فردی ۲) موانع اقتصادی ۳) موانع اجتماعی - فرهنگی ۴) موانع کالبدی ۵) موانع سازمانی مدنظر قرار گرفته‌اند. که متغیرهای نهفته هم به نوبه خود تحت تأثیر یک عامل پنهانی دیگر (موانع کارآفرینی گردشگری) قرار دارد. نتایج حاصل از تحلیل عاملی در شکل (۴) نشان می‌دهد، مقدار کای اسکویر ($X2$) برای برازش مدل ۱۲۲/۸۵۶ با درجه آزادی ۶۰ به‌دست‌آمده است. علاوه بر آن با توجه به اینکه مقدار آماره $RMSEA$ برابر با ۰/۰۶ می‌باشد حاکی از برازش خوب در مدل مورد نظر است. با توجه به اینکه مدل به دست‌آمده دارای روایی سازه و پایایی لازم بود، از این‌رو، به آزمون برازش مدل و بررسی شاخص‌های برازش مدل پرداخته شد. مقدار کای اسکویر درجه آزادی ۲/۰۴۸ کمتر از ۳ می‌باشد و چون شاخص برازندگی تطبیقی و فزاینده مقدارشان بین صفر و یک در نوسان است و هر چه به یک نزدیک‌تر باشد برازش مدل قابل قبول می‌باشد؛ و همچنین مدل ما نشان می‌دهد که گویه‌های هر یک از سازه‌ها می‌توانند زیر چتر سازه‌های خود قرار گیرند. کوواریانس یا ضریب همبستگی بین هر متغیر آشکار با متغیر پنهانی است که بر آن بار شده است (که همان بار عاملی است) نشان می‌دهد که چند درصد از واریانس یک متغیر آشکار توسط واریانس متغیر پنهان به حساب آمده است. نتایج نشان می‌دهد، از بین شرایط فردی عدم خلاقیت ($X2$) با ضریب همبستگی ۰/۶۲ بیش‌ترین وزن را در متغیر پنهان موانع فردی دارد. در بین سه متغیر موانع اقتصادی (نبود تسهیلات، نبود حمایت و نبود تقاضا)، نبود حمایت ($X5$) بیش‌ترین و نبود تسهیلات ($X4$) کمترین ضریب همبستگی را دارا می‌باشند. همچنین نبود دانش و آگاهی ($X7$) با مقدار ۰/۹ بیش‌ترین ضریب همبستگی را در بعد مانع اجتماعی - فرهنگی داشته است. در متغیر پنهان موانع کالبدی بیش‌ترین همبستگی را نبود زیرساخت با ضریب ۰/۸۹ داشته است و در متغیر موانع سازمانی بیش‌ترین همبستگی نبود مشوق ($X12$) با ضریب ۰/۷۱ می‌باشد. همچنین هر پنج بعد مورد بررسی دارای ضریب همبستگی مثبت با موانع کارآفرینی گردشگری می‌باشد که نشان‌دهنده اثرات مستقیم در عوامل ذکر شده با عدم کارآفرینی گردشگری در روستاهای مورد هدف گردشگری می‌باشد.

۵- بحث و نتیجه‌گیری

از آنجا که گردشگری عمدتاً در برگیرنده‌ی کسب وکارهای کوچک اقتصادی است، ضرورت نقش کارآفرینان گردشگری برای توسعه گردشگری روستایی محرز می‌باشد؛ بنابراین تشویق و ترویج کارآفرینی منجر به توسعه مناطق روستایی می‌گردد. تجربه تحقیقاتی بسیاری از کشورها نشان داده است که متنوع‌سازی اقتصاد روستایی و تعیین راهبردهای جایگزین، مانند گردشگری، فرصت‌های شغلی متعددی را در سکونتگاه‌های روستایی به وجود می‌آورد. گردشگری همچنین می‌تواند ثروت و جمعیت را از مراکز تمرکز و ثقل صنعتی به سوی روستاها و نقاط طبیعی جذب کند. هدف هر پژوهشی دستیابی به راه‌حل‌ها و اهدافی است که در راستای بهبود یا توسعه موارد و ابعاد روند تحقیق بررسی می‌شود. پژوهش حاضر، ضمن شناسایی و ارزیابی مهم‌ترین موانع کارآفرینی گردشگری در شهرستان چالدران، با ارائه پیشنهادهای کاربردی، شرایطی را ترسیم می‌کند که می‌تواند توسعهٔ کارآفرینی گردشگری را در منطقهٔ مزبور رقم بزند. در این راستا با توجه به داده‌های گردآوری شده و گویه‌های مورد بررسی در این پژوهش، نتایج حاکی از آن است که هر پنج بعد مورد بررسی به عنوان مانعی در ایجاد توسعه و بهبود کارآفرینی روستاهای هدف گردشگری مؤثر بوده‌اند. بیشترین موانع کارآفرینی در منطقه مورد مطالعه مربوط به بعد اجتماعی و فرهنگی می‌باشد.

کلید واژه‌ها: گردشگری روستایی، کارآفرینی گردشگری، توسعه روستایی، موانع کارآفرینی، روستاهای هدف گردشگری

تشکر و قدرانی

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Original Article

Assessing the Economic Resilience of Rural Households against Drought (Case Study: Mahidasht District in Kermanshah)

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Abstract

Purpose- Currently he occurrence of recent droughts in Iran and the severity of its damage indicate the vulnerability of farmers. The economic-environmental damages and the resilience farmers to this incident are evident in diverse ways. Therefore, recognizing the resilience of the population influenced by drought can offer a tool to prevent life-threatening disaster in high-risk areas. The aim of this study was to evaluate the economic resilience of rural households to drought in plain of Kermanshah and answer the following questions. What is the extent of economic resilience of rural households in Mahidasht to drought? What are the most important factors affecting the economic resilience of rural households to drought?

Design/methodology/approach- This is an applied research and a descriptive-analytical method along with library analysis and field surveys were adopted for data collection. The statistical population of this study consisted of 5081 households, out of whom 357 samples were selected according to Cochran's formula. Descriptive and inferential statistics (One-sample t-test) and structural equation modeling were used for data analysis.

Findings- According to the results of t-test, the variables of vulnerability of villagers' property and assets (mean=3.99) and the impact of drought on the value of assets (mean=3.86) gained the highest average in terms of resilience. On the contrary, the two variables of ability to compensate (mean=1.67) and membership in cooperatives and agricultural companies (mean=1.67) had the lowest averages. Moreover, the test results of all four variables of evaluating farmers' knowledge and awareness indicate a correlation between the independent variables (prevention, preparedness, reconstruction, institutional management) and the dependent variable (economic resilience). Therefore, it can be contended that the economic resilience of Mahidasht is fairly weak.

Keywords- Drought, Resilience, Rural household economy, Mahidasht district, Kermanshah.

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1. Introduction

There are growing concerns about the economic, ecological, and climate change impacts on human settlements in recent decades. According to the UN report, by 2025, more than two-thirds of the world's population will face water crisis and 18 countries will struggle with water shortages (Boretti & Rosa, 2019). Therefore, water scarcity and its challenges in certain geographical areas, especially in rural areas, have increased the risks of rural agriculture, disrupting the natural ecosystems of rural areas (Yang et al., 2005; Hoeppe, 2016; Kamara et al., 2018). Drought is a major threat to households and communities that rely on agriculture for livelihood (Anthopoulou et al., 2017; Pittman et al., 2011). Therefore, in order to reduce the risks of drought on human societies, various solutions have been proposed. Apart from improved methods of using water resources to mitigate the effects of drought, the adjustment of management methods and rural lifestyle for resilience enhancement is also one of the novel and successful solutions to alleviate the harmful effects of drought (Wilhite et al., 2014). According to experts, living in a natural hazard-prone environment does not necessarily imply damages or vulnerability, but the lack of resilience coupled with the population's knowledge of the type and nature of hazardous may cause damage (Cosgrove & Loucks, 2015).

In recent years, there has been a significant change in the perspective on hazards, including a change in the dominant approach focusing on vulnerability alleviation and then improved resilience to disasters (Sadeghloo & Sojasi Gheidari, 2014). According to this approach, risk mitigation programs should seek to strengthen the characteristics of resilience in communities, while focusing on the concept of resilience of local communities in the accident management chain (Scherzer et al., 2019).

The resilient approach, which involves adopting measures to maintain the performance of a system in the face of risks, threats and tensions, is closely linked to economics. Therefore, resilience is considered as a way to strengthen local communities by capitalizing on their capacities (Sojasi Gheidari et al., 2018). Therefore, a necessary step to deal with drought and mitigate its consequences is to understand the dimensions of vulnerability and resistance of individuals to improve their tolerance and resilience, which has been neglected in most developing countries, including Iran (Sadeghloo & Sojasi Gheidari, 2014).

In the last decade, Mahidasht district in Kermanshah city has withstood severe droughts, and its adverse consequences have been beyond usual hazards facing rural farmers. This district, which is home to 108 villages with a population of 17876 people (5333 households), is of special importance in terms of agricultural production in Kermanshah province. For many years, Mahidasht has been known as an area with agricultural potential and its agricultural surplus has been exported to other provinces. However, analyzing the level of SPI in a period of 30 years suggests that this area has been at the mercy of severe, moderate and ordinary droughts. In a period of 20 years, ten drought events have been reported. Since the majority of rural residents in the study area earn a living by farming and agriculture, drought has inflicted deleterious effects on the life of residents, triggering various social and economic problems for the villagers, including migration (seasonal or permanent) of the villagers to the city, unemployment, etc. The elimination of these problems requires a comprehensive and systematic plan. These problems introduce the importance of addressing the issue of drought in Mahidasht as a strategic priority. Therefore, the main goal of this study was to assess the economic resilience of rural households to drought in Mahidasht district of Kermanshah. Hence, we sought to answer these key questions. 1. What is the extent of economic resilience of rural households in Mahidasht district to drought? What are the major factors affecting the economic resilience of rural households to drought?

2. Research Theoretical Literature

The concept of resilience was introduced in social and environmental systems in the 1980s. This concept was first proposed by Holling in ecological studies as a way to understand the nonlinear dynamics of ecological systems (Roknoddin Eftekhari et al., 2014). It was then used by Timmerman for long-term assessment of climate change, Adger in social systems, Carpenter in human and environmental systems, Berks in ecological social systems, and Bruneau for short-term crisis management (Heydari Sarban &

Majnuni, 2016). Resilience is recognized as the potential capacity of a system, community or society at risk to adapt or resist changes in order to achieve or maintain a desirable level of performance and structure (Wannous & Velasquez, 2017). Therefore, in both theoretical and practical fields, a higher status is assigned to the alleviation of accident risks. Psychologists define resilience as a set of actions that help people overcome adversity and stress. According to this definition, resilience, apart from adaptation to adversity, is a process that take place in the face of a constant threat or experience of a stressful event.

In fact, this concept was introduced in light of the rising global change. To Hewitt (1974), in conditions that affect people's security, resilience describes the ability to withstand, resist, mitigate, tackle and compensate for damages or reduce the scale of harms. The Intergovernmental Panel on Climate Change (IPPC) defines resilience as the ability of a system and its components to forecast, absorb, adapt or recover from the effects of a hazardous event at a specified time (Mohammadi & Pashanjad, 2017). The basic concepts of resilience can be observed in the field of ecological approach. The famous ecologist, C.S. Holling, sees it as a measure of a system stability and ability to deal with changes and disturbances at a time when the relationship between population or state variables is feasible (Li et al., 2020). Therefore, the interdisciplinary nature of resilience in the field of environmental sciences, ecology and geography has introduced several definitions in recent decades with regard to the prevailing approach and sustainability paradigm in scientific circles (Mohammadi & Pashanjad, 2017). Thus, recognizing, understanding, and evaluating resilience and flexibility of systems against environmental change or system shocks prompted 26 NGOs active in climate change and natural risk hazards to present 10 characteristics originated from different schools of thought on resilience (Mohammadi & Pashanjad, 2017). Table 1 summarizes 10 main characteristics of resilient systems along with their relevant schools of thought.

Table 1. Characteristics of a sustainable system
(Source: Mohammadi and Pashanjad, 2017, p. 13)

School of thought	Characteristics
Theoretical ecology + economics on risk management and diversification	Considerable diversity in groups that perform a variety of functions in an ecosystem; economic opportunities in areas such as establishing resilience in the policy-making process; the participation of a community; natural resources exploited by a society and retrieval, response and planning activities
Decentralized governance	Effective governance and institutions that may foster community cohesion should be decentralized. They need to be flexible and in touch with local realities; the comprehensive learning system should be facilitated. Other specialized functions such as interpreting scientific data from climate change as a guide for policymakers should be implemented.
Applied ecology in disaster risk reduction	The goal of preparatory activities is not to resist change but to live with changes.
Participatory / governance	Social and economic justice; resilient programs consider issues of justice and equality when danger spreads throughout the communities.
Participatory / social justice	Recognizing the importance of social values and their structures due to the positive relationship between individual cooperation in the society, which facilitates equal access to natural resources and greater resilience.
Resilience	Substantiating the dynamics of imbalance in a system. An approach to resilience should not be associated with the idea of restoring equilibrium, because systems are not stable when they recover from a disturbance.
Adaptation-Management Learning	Continuous and effective learning is important. Therefore, through iterative policies / institutional processes, organizational learning enables reflective training, adaptive management, and integration with the concept of adaptive capacity

The result of the table above and the analysis of theoretical foundations of resilience can be described as follows. The concept of resilience is an integral part of planning and development today. Therefore, promoting resilience not only enhances the capabilities of a system in tackling critical situations and mitigating vulnerability, but also inherently brings development and

sustainability with a comprehensive approach. However, in defining the characteristics of a resilient system, it is referred to by terms such as flexibility or reversibility.

A resilient system has basic features that are defined in three categories of adaptability, self-regulation and deformability by Martin Brin and Marty Andries (2011) (figure 1). Accordingly, adaptability describes a system's power to deal effectively with potential damages. In general, a system concentrates on smaller time scales due to its specific characteristics, and the self-regulation comes from internal organization of the system without directing or managing an external source. Finally, deformability refers to the potentials of a system to be reorganized into a new system. That is, when that system fails to cope in its existing form (Shokri Firoozjah, 2017).

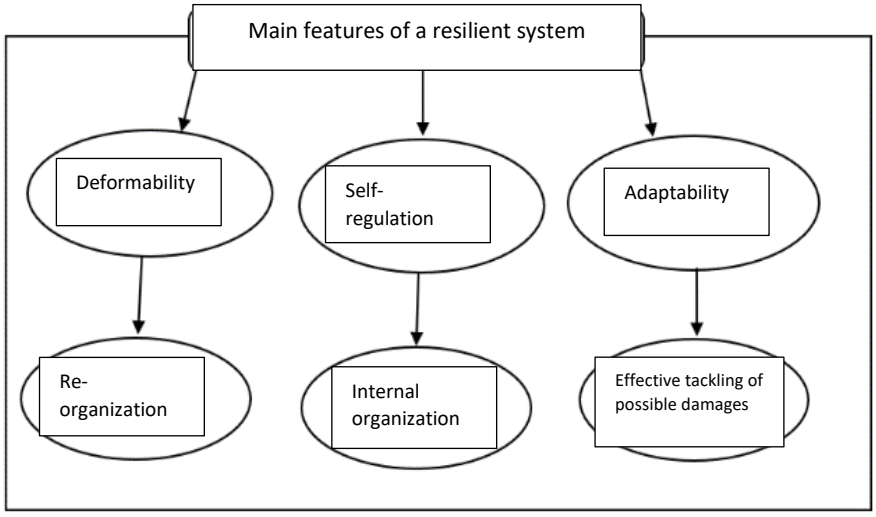

Figure 1. The main features of a resilient system
(Source: Shokri Firoozjah, 2017, p. 33)

Since agriculture is one of the main sources of employment in rural areas, as demonstrated by the bulk of Iranian and international studies, and the consequences of drought particularly influence rural areas. The most widespread effects of drought are evident in agricultural sector and the economy of rural households is heavily dependent on the agricultural sector, so that the diminished economic capacity of this sector threatens rural economy (Sadeghloo & Sojasi Gheidari, 2014, p. 137). Therefore, agriculture is one of the main sources of economy and employment of the villagers, which struggles with the deleterious consequences of drought every year, mounting a great challenge to the rural household economy (Cutter et al., 2016; Adger et al., 2016). Therefore, droughts intensify the vulnerability of all communities, especially the villagers. In some of these communities, survival is a major challenge for many families in the grip of the drought (Campbell et al., 2001). Hence, drought, water scarcity and their effects on agricultural production and economic development are a major global concern (El Kharraz, 2012; Hertel & Liu, 2019). The climate change and its effects on surface water flow and groundwater resources along with improper management of water resources have aggravated the vulnerability of communities to these changes and undoubtedly the intensification of water crises will further complicate this problem (Seyed Akhlaghi & Taleshi, 2018). Drought is more complex than other natural hazards as it covers wide expanses. It is also a most costly natural hazards due to its effect on large population (Hajian, et al., 2018). Statistics presented in International Decade for Natural Disaster Reduction (1990-1999) show that 22% of economic losses originating from crises are attributable to drought and 33% of world population have been affected by this phenomenon (Auld, 2008).

Other studies worldwide suggest that the signs of water shortage crisis have already appeared in countries such as China, India, Thailand, Mexico,

Egypt, Iran and African countries, and the world's major rivers, including the Nile in Egypt, the Ganges in South Asia, Yellow River in China and the Colorado in the United States are seriously threatened. Eleven major rivers in the UK have less than a third of their water capacity (Wines, 2014). Since the vulnerability of rural communities is one of the constraints facing the development of these communities especially in areas that are constantly affected by threats, the resilience of rural communities can be a facilitating approach to achieve development or improve the living conditions of residents (Anabestani et al. 2017). In this regard, Beckman (2006) states that the access of households and local residents to resources, social criteria for survival and reconstruction, support of organizations and institutional conditions that affect the distribution of resources are important in risk management. In other words, to him, the discrepancy of societies in coping with disasters is due to their different capacities in variables such as social class, economic status, social and cultural characteristics, social networks, access to resources, climate, political structures, income diversity, infrastructural constraints, old technology, lack of market access, capital, etc. in rural areas.

Therefore, rural management based on the resilience approach provides a structuring method to consider the complexities, uncertainties and interdependencies of systems and processes, which lays the ground for a novel method of planning and more effective use of evaluation and sustainability approach (Folke et al., 2002). In other words, rural resilience describes conditions that maintain a rural area's capacity to adapt to changes in external conditions, such as satisfaction with the standards. It also involves the capacity to recover from mismanagement and governance faults. Therefore, increasing resilience, the level of adaptation and coping with changes and environmental crises as well as mitigating the level of risk among local communities enable the sustainable development of community despite threats posed by environmental hazards. Meanwhile, people's access to suitable living conditions can wield influence on the level of villagers' resilience (Rafieian et al., 2011).

A number of studies have explored resilience and vulnerability of rural communities and their relationship with drought, some which are briefly mentioned in table 2.

Table 2. Studies on economic resilience to drought

Researchers	Title	Summary of results
Mohammadi Yeganeh et al. (2015)	Explaining the relationship between the diversity of economic activities and sustainable rural development, case study: Tarjan County, Saqez County)	The results of this study showed that drought has inflicted enormous damage to agriculture and rural community during the past year. The approach to tackling natural hazards and events has been substituted by a coping and enduring strategy. Therefore, the resilience of households in the studied villages is not desirable
Heydari Sarban and Majnuni Tutakhaneh (2016)	The role of livelihood diversity in the resilience of rural households around Lake Urmia to drought	The results of this study revealed that the adoption of sustenance approach has improved the resilience of households against the drought of Lake Urmia. In villages subjected to more severe drought, the sustenance diversity was higher.
Hajian et al. (2016)	The role of diversity of agricultural and non-agricultural economic activities on the resilience of rural farming households exposed to drought (Case study: Chenaran city)	The results of this study manifested that diversity of economic activities fosters the resilience of rural agricultural households. As a result, the average resilience is 2.40 in households with non-diverse, 2.48 in semi-diverse and 2.83 in diverse income sources.
Lin (2011)	Agricultural resilience through agricultural diversity	They concluded that climate change can produce harmful consequences for agricultural production. Hence, one approach to reduce the adverse effects of climate elements is diversifying production and improving the resilience of farmers
Carlisle et al. (2014)	Diversity, flexibility, and resilience effect. Case study of agricultural ecology in the North American Plain	They concluded that farmers in broad North Plains in the United States, due to the diversity of economic activities,

Researchers	Title	Summary of results
		have high economic power, but it is not the case in other areas.
Liebman et al. (2015),	Increased yield and resistance to ecosystems by promoting diversity in agricultural harvesting systems	They reported that the diversification of agricultural products can pave the way for resistance and resilience to climate change, plant pests, droughts, which in turn boosts flexibility.
Asfaw et al. (2018)	Diverse strategies compatible with agricultural production; evidence from rural communities in Nigeria	In their study, they concluded that vulnerable farmers in Nigeria have adopted resilience and diversification of agricultural products as a strategy to adapt to climatic changes.
Scherzer et al. (2019)	Indicators of agricultural community resilience in Norway	The results of this study manifested a significant relationship between vulnerability reduction and resilience of rural communities in the Solomon Islands.

3. Research Methodology

This study investigated the economic resilience of rural households to drought in Mahidasht district of Kermanshah city. This is an applied research that used a descriptive-analytical method along with library and field survey methods (observation, questionnaire) for data collection. The population consisted of villages in Mahidasht district of Kermanshah, which are located in two counties (Mahidasht and Chogha Narges) with 108 villages (39 villages in Chogha Narges and 69 villages in Mahidasht). To determine the sample size, villages were classified into four groups according to number of households and sampling was conducted proportional to each category. Also, in each category, the rainfed and irrigated cultivation was considered to investigate the resilience of rural residents to drought from the perspective of rainfed and irrigated cultivation. Relative to the number of villages in each village, the samples were selected directly. In the end, 108 villages were classified into four groups (based on the number of households, irrigation and rainfed cultivation).

The first group consisted of 44 villages with less than 30 families. The second group included villages with 30 to 60 families (35 villages). The third group comprised villages with 60 and 90 households (16 villages). The fourth group contained 13 villages with a population of more than 90 families. Finally, sample villages were selected, and questionnaires were distributed using simple random sampling to collect required data. Moreover, there were 5081 households in the villages of Mahidasht district. Cochran's formula was used to estimate the sample size. Therefore, based on this formula, the sample size of n statistical population in Mahidasht district was estimated (357 households) (table 3).

Table 3. Sample villages along with the number of questionnaires

(Source: The Census conducted by Statistics Center of Kermanshah, 2016)

	Group	Village	Selection criterion	Population	Household	Number of questionnaire
1	(A) Less than 30 households	Qomsheh-ye Baba Karam Khan	Irrigation	73	17	6
2		Lalabad-e Kol Kol-e Do	Rainfed	81	25	9
3		Tazehabad-e Namivand	Irrigated	87	26	10
4		Zalakeh-ye Vaziri	Irrigated	68	22	8
5	(B) 30 to 60 households	Banlarini	Rainfed	163	43	16
6		Gheymas	Rainfed	91	31	11
7		Rahim Abad-e Sofla	Irrigated	127	39	14
8		Kashanbeh-ye Sofla	Irrigated	194	56	20
9	(C) 60 to 90 households	Goharabad	Rainfed	265	68	25
10		Tolatif	Rainfed	252	73	27
11		Jameh Shuran	Irrigated	235	79	29
12		Choqa Ginu	Irrigated	240	70	26
13	(D) Over 90 households	Lalabad-e Hoseyn-e Qolikhani	Rainfed	330	92	34

	Group	Village	Selection criterion	Population	Household	Number of questionnaire
14		Ghomeshah Tapeh	Rainfed	338	91	33
15		Seh Choqa	Irrigated	330	95	35
16		Qaleh Darab Khan	Rainfed	494	145	54
Total				3368	972	357

From a geographic perspective, the study area is a plain. Hence, the villages are almost identical in natural position. The total population of Mahidasht district according to 2016 General Population and Housing Census was 17876 people (5333 households) of which 823 people (252 households) dwelled in the urban area of Robat and 17053 people (5081 households) resided in villages. According to the research subject, which highlights the greater resilience of rural households against drought, the villages in both counties were selected based on their important agricultural activities as well as the farming method (rainfed and irrigated). Population and the activities of people working in the agricultural sector will also have a bearing on the selection of samples (figure 2).

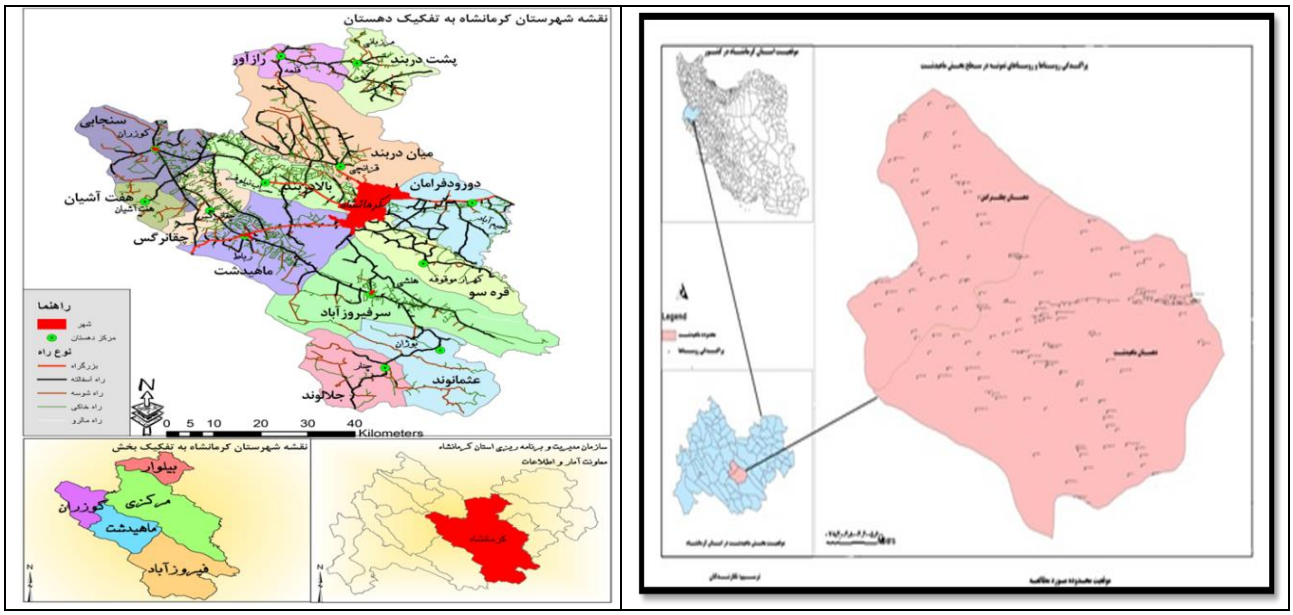

Figure 2. Map of the study area

The validity of the questionnaire was assessed by experts before identifying the final indices and items. The questionnaire developed at this stage was pre-tested and after confirming its reliability (Cronbach's alpha=0.831) the questionnaire was finalized for the field research. Descriptive (mean) and inferential (single sample t) statistical methods and Amos models were used for data analysis. In this study, the indicators of economic resilience of rural households to drought are investigated (table 4). Therefore, 18 indices were identified to assess economic status and 36 indices to measure the awareness and knowledge of villagers regarding drought (adaptation).

Table 4. Dimensions and indices of drought resilience

Source: Sadeghloo & Sojasi Gheidari, 2014; Mohammadi Yegan et al., 2015; Anabestani et al., 2017; Sojasi Gheidari et al., 2018; Roknoddin Eftekhari et al., 2014; Rafieian et al., 2011

Indices	Dimension	Concept
Economic stability - Entrepreneurship - Job skills - Income diversity - Economic - Non-agricultural income - Land areas - Membership in cooperatives and agricultural companies - Damage to farms, gardens and pastures of villagers - Vulnerability of villagers' property and assets - Household saving	Economic	Resilience

capacity (higher savings) - Impact of drought on asset value - Use of financial credits (loans) - Product sales market - Capital - Ability to compensate - Insurance - Revival of economic activities after the crisis - Income level		
Indices and variables of measuring the awareness and knowledge of villagers about drought (adaptation)		
Index	**Variable**	**Dimensions**
Awareness of drought signs	Identifying risks and effects	Prevention
Awareness of the effects of drought risk		
Awareness of areas affected by drought risk		
Awareness of drought forecast	Risk forecast and warning	
Drought warning methods		
Awareness of irrigation patterns (selection of a new irrigation system) – timely irrigation	Preventive measures to reduce injuries	
Awareness of changing cultivation patterns - Recognizing and using seeds and drought-resistant species - Using organic farming systems – Accurate cropping period - Strengthening soil and soil erosion control measures - Changing planting history		
Knowing about product insurance (insuring agricultural products)		
Knowing how to manage water consumption		
Knowledge of groundwater resources		
Knowledge of water storage resources and its supply for emergencies	Providing resources for response and confrontation	Preparedness
Knowing the benefits of membership in cooperatives and agricultural companies		
Knowing the importance of saving at the time of drought exacerbation		
Knowing how to provide food, etc. in the face of drought		
Knowledge of alternative jobs and opportunities (gardening)	Alternative sources of income	
Awareness of alternative jobs and opportunities (livestock)		
Knowledge of non-agricultural methods to earn a living (handicrafts)		
Knowing how to reconstruct livestock farming	Reconstruction	Rebuilding
Knowledge of agricultural sector reconstruction methods (increasing the diversity of cultivated crops - using indigenous knowledge to cope with drought - using intercropping methods		
Knowledge of reconstruction methods for the groundwater resources		
Knowledge of reconstruction methods for service infrastructure		
Awareness of ways to organize water consumption		
Knowledge of methods to reduce water loss (repair of water canals - attention to the coverage of irrigation canals - modification of irrigation methods		
Knowledge of related credits	Institutional support	
Familiarity with responsible institutions		
Familiarity with the duties of Dehyars	Performance of local managers	

4. Research Findings

Of the total subjects, 1.1% were in the age range of less than 25 years, 42.6% were 25 to 45 years old and 56.3% were more than 45 years old. As regards gender, 39 (10.9%) were female and 318 (89.1%) were male. As for marital status, 94.9% were married and 4.5% were single. Moreover, most of the people working in farms were illiterate or had elementary primary education (reading and writing). In total, 70.3% of farmers had primary and lower education, 18.9% had middle school degree and 10.8% have a diploma or higher. There was an inverse relationship between education and employment in agriculture. Under the current conditions, agriculture is devoid of attraction to draw in educated people so these people prefer to engage in non-agricultural and high-income jobs to fulfil their aspirations. They also do not see

agriculture as a job. Moreover, since the literacy of people engaged in agriculture is not consistent with modern farming requirements, it will not improve production.

Concerning occupations, 73.4% (262 people) of respondents were involved in livestock breeding, 20.7% (74 people) had agricultural jobs and only 5.5% (21 people) were simultaneously engaged in three jobs of agriculture, livestock breeding and horticulture. The diversity of agriculture-related jobs is considered as an advantage, because it ensures the variety of income sources and protects the exploiter from the adverse consequences of making a single product. This is even more important for agricultural activities that are at risk of drought and pests. Moreover, 56% of respondents stated that they have equipped and modernized agricultural machinery to varying degrees (36.4% poorly, 19.6% very poorly, 22.4% moderately, 14% great, 6% very great).

In order to evaluate the resilience of the studied rural areas to drought, considering the normality of the research indices (the significance of the Kolmogorov–Smirnov test for these indices was above 0.05). A One-sample t-test was used for this purpose. In this test, if both the upper and lower limits are positive, the average population of that variable will be higher than the tested value. Moreover, if the former is positive and the latter is negative, the average population calculated indicates the test value (the theoretical median 3). Also, when these two variables are negative, the mean of variable in question is less than the test value and these variables are fairly low in the study population. Therefore, the estimated average of indices related to the resilience of rural areas to drought is measured by a hypothetical average (3), showing that the real average of the total respondents' opinion is less than 3 (below average). Given the significance of all indices, which is less than 0.05, it can be generalized to the entire study population.

Moreover, the upper and lower limits of all indices are negative, revealing that the average of these indices is below the desired value. This suggest that the resilience of rural areas to drought is low. Therefore, the results of t-test for the 18 variables of the economic index show that the two variables of "the vulnerability of villagers' property and assets" (mean=3.99) and "the impact of drought on the value of assets" (mean=3.86) have the highest average in terms of economic resilience. In contrast, the two variables of "ability to compensate" (mean=1.67), and "membership in cooperatives and agricultural companies" (mean=1.67) have the lowest averages (table 5).

Table 5. One-sample t-test to measure the criteria (variables) of economic resilience in Mahidasht

Dimension	Variable	Mean	Mean difference	T value	Df	Significance
Economic	Economic stability	3.16	0.168	1.57	356	0.09
	Entrepreneurship	3.61	0.610	6.72	356	0.000
	Job Skills	15/3	0.156	1.21	356	227.0
	Income-economic diversity	69.3	69.1	14.80	356	0.000
	Non-agricultural income	2.18	0.817	12.77	356	0.000
	Land area	62/3	627/0	20/7	356	0.000
	Membership in cooperatives and agricultural companies	1.76	1.23	11.5	356	0.000
	Damage to farms, gardens and pastures of villagers	2.82	0.179	7.20	356	0.032
	Vulnerability of villagers' property and assets	3.99	0.997	2.14	356	0.000
	Household saving capacity (increase savings)	3.12	0.123	7.51	356	0.163
	Impact of drought on asset value	3.86	0.868	1.39	356	0.000
	Use of financial credits (loans)	2.78	0.218	7.34	356	0.000
	Market for selling products	3.70	0.705	2.82	356	0.000

Dimension	Variable	Mean	Mean difference	T value	Df	Significance
	Capital	2.01	0.982	5.81	356	0.000
	Ability to compensate	1.67	0.328	14.10	356	0.000
	Insurance	2.14	0.245	11.7	356	0.000
	Revival of economic activity after the crisis	3.12	0.425	4.7	356	0.000
	Income level	2.12	0.356	2.25	356	0.000

Moreover, a single-sample t-test was run to assess the criteria (variables) of knowledge and awareness in Mahidasht district. The analysis of data obtained from respondents based on single-sample t-test indicates the low effect of resilience in the economy of rural households in the study area. Therefore, considering the spectral range of the indices, which is between 1 and 5 (based on the Likert scale), the results of single-sample t-test manifest that agricultural companies (mean=1.67), the use of indigenous knowledge to cope with drought (mean=1.706) and the use of organic farming systems (mean=1.17) have the lowest important, respectively. (Hence, the results suggest a very low tendency to join agricultural cooperatives among residents in the study area. Also, familiarity and use of organic farming methods by residents is fairly low. The villagers, thought mostly farmers, lack the indigenous knowledge to deal with the drought, and their knowledge of this area is low. Therefore, the results of assessing the economic resilience of rural farmers in Mahidasht district are presented in Table 6.

Table 6. One-sample t-test to measure the criteria (variables) of knowledge and awareness of people in Mahidasht

Dimension	Variable	Mean	SD	T value	Df	Significance
Prevention	Knowing the signs of drought	1.966	1.034	27.219-	356	0.00
	Knowing the effects of drought risk	2.722	0.278	2.150-	356	0.00
	Knowing areas affected by drought risk	1.958	1.042	17.831-	356	0.00
	Awareness of drought forecasts	1.786	1.214	22.673-	356	0.00
	Familiarity with drought warning methods	1.798	1.202	18.525-	356	0.00
	Knowledge of irrigation patterns (use of a new irrigation system)	2.510	0.490	5.417-	356	0.00
	Knowledge of timely irrigation	2.762	0.238	0.786-	356	0.00
	Knowledge of changing cultivation pattern	2.066	0.934	13.119-	356	0.00
	Recognition and use of drought-resistant seeds and species	2.562	0.438	4.818-	356	0.00
	Use of organic farming systems	1.723	1.277	23.783-	356	0.00
	Knowing the time of crop cultivation	2.566	0.434	5.038-	356	0.00
	Fostering soil erosion control measures	2.434	0.566	7.102-	356	0.00
	Knowing change in cultivation date	2.502	0.498	6.356-	356	0.00
	Knowing about product insurance (insuring agricultural products)	2.962	0.038	1.934-	356	0.00
	Knowledge of water consumption management	2.672	0.328	2.812-	356	0.00
	Knowledge of groundwater resources	2.350	0.650	8.879-	356	0.00
	Knowledge of water storage resources and its supply for emergencies	1.814	1.186	20.883-	356	0.00
Preparedness	Knowing the benefits of membership in cooperatives and agricultural companies	1.674	1.326	24.367-	356	0.00
	Knowing the importance of savings for the time of drought exacerbation	2.298	0.702	10.194-	356	0.00

Dimension	Variable	Mean	SD	T value	Df	Significance
	Knowing how to provide food, etc. in time of intensifying drought	1.974	1.026	16.548-	356	0.00
	Familiarity with alternative jobs and opportunities (gardening)	1.906	1.094	18.602-	356	0.00
	Knowing alternative jobs and opportunities (livestock breeding)	1.954	1.046	17.230-	356	0.00
	Knowledge of non-agricultural methods of earning a living (handicrafts)	1.731	1.269	22.171-	356	0.00
Rebuilding	Knowledge of livestock farming reconstruction methods	1.782	1.218	20.136-	356	0.00
	Knowledge of agricultural sector reconstruction methods (increasing the diversity of cultivated crops)	1.882	1.118	18.166-	356	0.00
	Use of indigenous knowledge to deal with drought	1.706	1.294	23.462-	356	0.00
	Use of intercropping methods	1.870	1.130	19.405-	356	0.00
	Knowing how to reconstruct groundwater resources reconstruction methods	1.758	1.242	21.264-	356	0.00
	Knowing how to reconstruct service infrastructure	1.750	1.250	21.754-	356	0.00
	Knowing how to organize water consumption methods	1.970	1.030	16.314-	356	000.0
	Knowing how to reduce water loss (repair of water canals	2.450	0.550	6.649-	356	000.0
	Improving irrigation practices	2.610	0.390	3.833-	356	000.0
Management institutions	Awareness of related credits	1.838	1.162	19.167-	356	000.0
	Knowing responsible institutions	2.010	0.990	16.297-	356	000.0
	Knowing the duties of villagers	2.050	0.950	14.642-	356	000.0
	Knowing the duties of the Agricultural Services Center	2.054	0.946	15.604-	356	000.0
	Knowing the district duties	2.026	0.974	14.702-	356	000.0

4.1. Evaluating the impact of farmers' knowledge and awareness on economic resilience

In studies on the economic resilience of villagers in the face of drought, knowledge and awareness represent an important approach to address problems, which can ultimately promote the level of resilience. In this regard, in order to identify and measure the factors affecting the level of economic resilience to drought in the villages of Mahidasht district in Kermanshah city, knowledge and awareness of farmers was studied. The goal was to investigate the role of dimensions and components of knowledge and awareness of the economic resilience to drought. Therefore, after inputting data, the output of the model can be viewed both graphically and textually. Here are the main parts related to the model and interpretation. Table 7 shows the results of text analysis including CMIN, DF, P, CFI, RMSEA, etc.

Table 7. The values of the fit indices of the structural equation model of the research

Fit index	CMIN	DF	P	CFI	RMSEA
Value	1.563	68	0.0001	0.973	0.03

The values of CFI=0.973, RMSEA=0.003, CMIN=1.563 show that the model fits data well. Therefore, it can be concluded that the model used to measure the relationship of knowledge and agricultural awareness with economic resilience to drought is significant. Moreover, according to table 8, the association of knowledge and awareness of agriculture and economic resilience to drought was also significant (sig=0.000).

Table 8. Standard estimated values of variables

Variable	Estimate	sig
Agricultural knowledge and awareness ---> Economic resilience to drought	0.731	0.000

In the next step, the correlation of components of agricultural knowledge and awareness, including prevention, reconstruction, preparedness and institutional management with economic resilience to drought is measured to investigate the relationship of components separately.

4. 2. Measuring the relationship between prevention variables and economic resilience

"Prevention" is one of the dimensions of drought knowledge and awareness for which relevant measures were designed and data collection was performed via a questionnaire. Considering "prevention" as an independent variable, we used structural equations to investigate its correlation with the level of agricultural knowledge and awareness in Mahidasht, the results of which are shown in table 9. As the table shows, CAMIN (1.396,), CFI (0.895) and RMSEA (0.48) indices show the good fit of the model. P-value <0.005 is a criterion that denotes significant difference of values at 0.95% CI.

Table 9. The values of the fit indices of the structural equation model of the research

Fit index	CMIN	DF	P	CFI	RMSEA
Value	1.396	68	0.0001	0.895	0.48

According to figure 3 and table 10, the correlation coefficient of drought prevention and economic resilience is significant (sig=0.001), and therefore their correlation is confirmed.

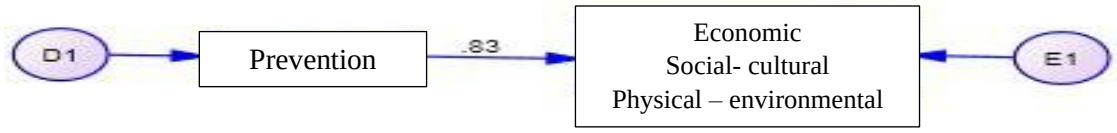

Figure 3. Correlation between prevention and economic resilience

Table 10. Standard estimated values of variables in economic prevention and resilience

Variable	Estimate	sig
Prevention ---> Economic resilience	0.834	0.000

4. 3. Measuring the relationship between economic preparedness and resilience variables

In order to investigate the effect of the "preparedness" on economic resilience, its various dimensions were identified and the required data were collected in Mahidasht. The results are shown in table 11. Moreover, according to the information presented in the table, CAMIN (0.256), CFI (10.916) and RMSEA (0.35) indices show the good fit of the model. Therefore, the developed model appears to be acceptable.

Table 11. The values of the fit indices in the structural equation model of the research

Fit index	CMIN	DF	P	CFI	RMSEA
Value	1.256	72	0.000	0.916	0.35

As figure 4 and table 12 show, the correlation coefficient between economic preparedness and resilience was significant (sig=0.000) and therefore their correlation is confirmed.

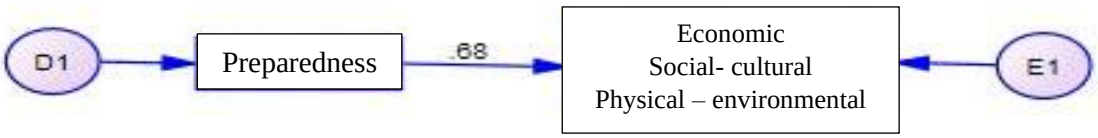

Figure 4. Correlation between economic preparedness and resilience

Table 12. Standard estimated values of variables in economic readiness and resilience

Variable	Estimate	sig
Preparedness ---> Economic resilience	0.687	0.000

4. 4. Measuring the relationship between the reconstruction and economic resilience

Reconstruction is one of the independent variables of the present study. Here, the structural equations of its correlation with the dependent variable, i.e. economic resilience, was investigated in the study area, the results of which are shown in table 13. Therefore, as listed in the table, CAMIN (1.730), CFI (0.941) and RMSEA (0.22) exhibited the good fit of the model. Therefore, the developed model appears to be acceptable.

Table 13. The values of the fit indices of the structural equation model of the research

Fit index	CMIN	DF	P	CFI	RMSEA
Value	1.730	72	0.000	0.941	0.22

The correlation between reconstruction and economic resilience was assessed using structural equation modeling, the results of which are shown in figure 5.

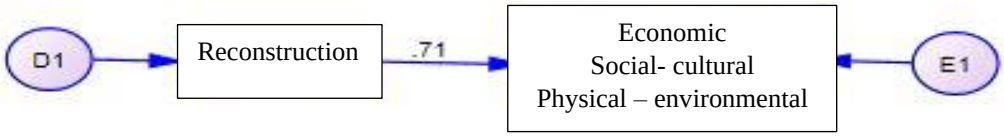

Figure 5. Correlation between reconstruction and economic resilience

As table 14 shows, the correlation between reconstruction and economic resilience was significant (sig=0.000) and hence their correlation is confirmed.

Table 14. Standard estimated values for variables of economic reconstruction and resilience

Variable	Estimate	sig
Reconstruction ---> Economic resilience	0.69	0.000

4. 5. Measuring the relationship between institutional management variables and economic resilience

The data related to "institutional management" component was collected via a questionnaire and subjected to analysis. To test the correlation between institutional management as an independent variable and economic resilience as a dependent variable, the structural equation model was used. The results are shown in table 15. As listed in the table, CAMIN (1.220), CFI (0.923) and RMSEA (0.36) indices revealed the good fit of the model and therefore the proposed model is acceptable.

Table 15. The values of fit indices of the structural equation model of the research

Fit index	CMIN	DF	P	CFI	RMSEA
Value	1.220	56	0.00	0.923	0.36

As figure 6 and table 16 show, the correlation between institutional management and economic resilience was significant (sig=0.000) and hence their correlation is confirmed.

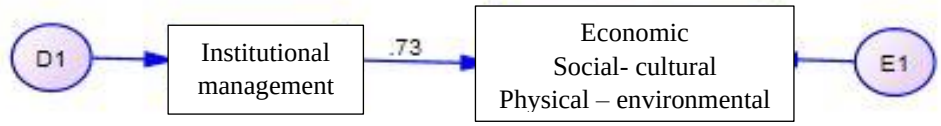

Figure 6. Correlation between institutional management and economic resilience

Table 16. Standard estimated values of variables in institutional management and economic resilience

Variable	Estimate	sig
Institutional Management ---> Economic Resilience	0.76	0.000

5. Discussion and Conclusion

A review of the literature and research background suggests that improving the resilience of residents and strengthening the resilience of rural settlements is the best strategy to alleviate the effects of natural disasters, especially drought. Iran sits on a dry belt and the persistence of droughts in the last two decades due to climate change have triggered multiple drought crises, especially for in villages that are heavily dependent on water for production.

Drought has caused enormous damage to agriculture and rural communities over the years. In the last decade, the approach to tackling natural disasters and events has given its place to coping strategy. A review of the literature manifests that improving the resilience of residents and increasing the resilience of rural settlements in general is the most effective strategy to mitigate the effects of natural disasters, especially drought.

Droughts in the study area were no exception to this rule, imposing considerable adverse effects on the life of rural farmers, which can be partially due to their low level of resilience to this risk. Therefore, reducing the vulnerability of rural farmers by fortifying the level of resilience and promoting resilience to the consequences of drought risk can be one of the special tasks of agricultural management, planning and development in Iran. It can be conducted through accurate identification of factors that have a bearing on resilience. Therefore, the present study was conducted to evaluate the economic resilience of rural households to drought in Mahidasht district of Kermanshah. According to the results of t-test, the variables of vulnerability of villagers' property and assets (mean=3.99) and the impact of drought on the value of assets (mean=3.86) had the highest average in terms of resilience. On the contrary, the two variables of ability to compensate (mean=1.67) and membership in cooperatives and agricultural companies (mea=1.67) had the lowest averages. These findings were confirmed by t-test at a significance level of 96%. That is, there was a significant difference (sig=0.000) between the theoretical mean (3) and the calculated mean (experimental mean). Therefore, it can be posited that Mahidasht district is vulnerable to the risk of drought. The analysis of the study area shows that the tendency to join agricultural cooperatives among residents was very low. Moreover, the test results of all four variables of evaluating farmers' knowledge and awareness indicate a correlation between the independent variables (prevention, preparedness, reconstruction, institutional management) and the dependent variable (economic resilience). However, the results of this study could be compared with the results of Mohammadi Yeganeh et al. (2015), Heydari Sarban & Majnuni Tutakhaneh (2015), Hajian et al. (2019), Lin (2011), Carlisle et al. (2014). In line with this study, these authors stressed indices such as diversity of livelihood, diversity of economic activities, awareness raising, organization, and prevention. Therefore, the performance of resilience indices is highly important in order to reduce the risk of drought in rural areas. Thus, authorities and the people should pay special attentions to this issue. A key factor in the interaction of people regarding resilience to drought is to provide education and training in order to create opportunities for participation, empowerment, social networks, social norms, etc. which can contribute to the local risk reduction.

Therefore, the improvement of above-discussed issues, which are main components of economic resilience, should be high on the priority of rural planning managers and officials that are in charge of administrative affairs of villages.

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Research Article

ارزیابی تاب‌آوری اقتصادی خانوارهای روستایی در برابر خشکسالی (مطالعه موردی: بخش ماهیدشت شهرستان کرمانشاه)

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چکیده مبسوط

۱. مقدمه

رویکرد تاب‌آوری اتخاذ تدابیر به منظور حفظ عملکرد یک سیستم به هنگام مواجهه با مخاطرات، تهدیدات و تنش‌ها، قرابت بسیاری با اقتصاد دارد. از این رو تاب‌آوری به منزله راهی برای تقویت جوامع محلی با استفاده از ظرفیت‌های آنها مطرح می‌شود. بنابراین گام ضروری برای مقابله با خشکسالی و تعدیل تبعات آن، شناخت و درک دقیق از ابعاد آسیب‌پذیری و مقاومت افراد برای ارتقای تحمل و انعطاف‌پذیری آنان است که در اغلب کشورهای در حال توسعه از جمله ایران مورد غفلت قرار گرفته است.

۲. مبانی نظری تحقیق

از آنجایی که کشاورزی یکی از منابع اشتغال عمده روستاییان تلقی می‌شود و مطالعات صورت گرفته داخلی و خارجی نیز آن را تایید می‌کنند. آنها نشان دادند که پیامدهای مختلف خشکسالی بر مناطق روستایی برجسته می‌باشد، زیرا ضمن اینکه گسترده‌ترین اثرات خشکسالی اثرات تحمیل شده بر بخش کشاورزی می‌باشد و اقتصاد خانوارهای روستایی وابستگی قابل توجهی به بخش کشاورزی دارد، با کاهش ظرفیت‌های اقتصادی این بخش، اقتصاد روستاها نیز به مخاطره افتاده و پیامدهای بعدی را نیز در پی خواهد داشت. بنابراین کشاورزی یکی از منابع اصلی اقتصاد و اشتغال عمده روستاییان تلقی می‌شود که هر ساله در معرض پیامدهای مخاطرات خشکسالی قرار می‌گیرد، زیرا اثرات ناگواری بر بخش کشاورزی وارد می‌کند و اقتصاد خانوارهای روستایی را با چالش بزرگی روبرو می‌کند. بنابراین تفکر مدیریت روستاها براساس رویکرد تاب‌آوری، روش ساختاربندی برای توجه به پیچیدگی‌ها، عدم قطعیت و وابستگی‌های درونی سیستم‌ها و فرآیندها فراهم می‌آورد و زمینه را برای روش جدید برنامه‌ریزی و استفاده کارآمدتر از ارزیابی و تفکر پایداری فراهم می‌کند.

۳. روش تحقیق

این پژوهش به بررسی و ارزیابی تاب‌آوری اقتصادی خانوارهای روستایی در برابر خشکسالی در بخش ماهیدشت شهرستان کرمانشاه پرداخته است. نوع پژوهش کاربردی و روش مورد استفاده توصیفی- تحلیلی می‌باشد. برای گردآوری داده‌های مورد نیاز از روش کتابخانه‌ای و میدانی(مشاهده، پرسشنامه) استفاده شده است. جامعه آماری این پژوهش، شامل روستاهای بخش ماهیدشت شهرستان کرمانشاه می‌باشد که در دو دهستان (ماهیدشت و چقانرگس) با تعداد ۱۰۸روستا (چقانرگس ۳۹روستا و ماهیدشت ۶۹روستا) قرار دارند. برای حجم نمونه بطور متوسط روستاها در چهار طبقه جمعیتی براساس خانوار دسته‌بندی و از هر دسته به نسبت تناسب نمونه‌گیری اقدام شد، همچنین در داخل هر طبقه به کشت دیم و آبی آنها توجه شد تا وضعیت تاب‌آوری ساکنین در مقابل خشکسالی را از منظر کشت دیم و آبی مورد بررسی قرار دهیم. براساس تخصیص متناسب نسبت به تعداد روستاهای هر دهستان، تعداد روستاهای نمونه به صورت مستقیم شدند، که در مجموع از ۱۰۸روستا، در چهار گروه (براساس خانوار، نحوه کشت آبی و دیم) دسته‌بندی شدند.

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۴.یافته‌های تحقیق

یافته‌های تحقیق نشـان داد که براسـاس آزمون t-test که متغیرهای آسـیب پذیری اموال و دارایی های روستاییان ۳.۹۹ و تاثیر خشکسالی در ارزش دارایی ۳.۸۶ بالاترین میانگین را از نظر اهمیت تاب‌آوری اقتصادی می‌باشد. در مقابل نیز سـه متغیر توانایی جبران خسـارت با میانگین ۱.۶۷، عضـویت در تعاونی و شرکت‌های کشاورزی با میانگین ۱.۶۷ کمترین میانگین‌ها را به خود احتصاص دادند. این مطلب را آزمون t در سطح معناداری ۹۶ درصد تایید می کند، یعنی بین میـانگین نظری(3) بـا میـانگین بـدسـت آمـده(میـانگین تجربی) تفـاوت معناداری(sig=0.000) وجود دارد. پس می‌توان گفت بخش ماهیدشـت در برابر مخاطره خشـکسـالی آسـیب‌پذیر اسـت. بنابراین بررسـی محدوده مورد مطالعه نشان می‌دهد که میزان گرایش به عضویت در تعاونی‌های کشاورزی در میان سـاکنین در سـطح بسـیار پایینی قرار دارد. همچنین نتیجه آزمون تمامی چهار متغیر سـنجش دانش و آگاهی کشـاورزان نشـان از همبسـتگی میان متغیرهای مسـتقل(پیشـگیری، آمادگی، بازسـازی، مدیریت نهادی) و متغیر وابسته(تاب‌آوری اقتصادی) است.

۵. بحث و نتیجه‌گیری

بررسـی ادبیات نظری و پیشـینه های موفق نشـان می‌دهد که بهبود تاب آوری سـاکنان و به طورکلی افزایش تا بآوری سـکونتگاه های روسـتایی، بهترین شـیوه در جهت کاهش اثرات بلایای طبیعی به ویژه خشـکسـالی اسـت. قرار گیری کشـور ایران بر روی کمربند خشـک و تداوم خشـکسـالی‌های دو دهه اخیر به واسطه تغییرات اقلیمی منجر به شکل گیری بحران‌هایی با منشاء خشکسالی به ویژه برای روستاییان که وابستگی عمیقی به آب برای تولید دارند، شده است. خشکسالی‌های رخ داده در منطقه مورد مطالعه پژوهش حاضر نیز از این قاعده مسـتثنی نبوده و منجر به تاثیرات منفی فراتر از حالت عادی و وقوع مخاطره خشکسالی در بین کشاورزان روستایی شده است که می تواند به دلیل پایین بودن سـطح تاب‌آوری آنها در برابر این مخاطره باشـد. لذا کاهش ابعاد آسـیب‌پذیری کشـاورزان روسـتایی از طریق افزایش سـطح تاب آوری و ارتقای انعطاف‌پذیری در برابر پیامدهای مخاطره خشـکسـالی می‌تولند یکی از کار ویژه‌ای مدیریت، برنامه‌ریزی و توسـعه کشـاورزی در کشـور باشـد که از طریق شـناسـایی دقیق عوامل تاثیرگذار در تقویت تاب‌آوری امکان‌پذیر اسـت. لذا تحقیق حاضر با هدف ارزیابی تاب‌آوری اقتصادی خانوارهای روسـتایی در برابر خشکسالی در بخش ماهیدشت شهرستان کرمانشاه انجام شد. بحث عملکرد شـاخص های تاب آوری در جهت کاهش مخاطرات خشـکسـالی در مناطق روسـتایی اهمیت بسـیاری دارد که باید مسـئولین و مردم به آن توجه ویژه‌ای داشته باشند. لذا آنچه که بیش از همه در حضور و تعامل افراد در تاب آوری در برابر مخاطرات خسـکسـالی نقش دارد، ایجاد و تقویت کلاس های آموزشـی اسـت که می‌توان به ایجاد فرصـت‌های مشـارکت، توانمندسـازی، شـبکه‌های اجتماعی، هنجارهای اجتماعی و غیره بینجامد و زمینه را برای افزایش کاهش مخاطرات محلی فراهم کرد. بنابراین بهتر اسـت تقویت زمینه‌های فوق که‌به عنوان مولفه های مهم تاب آوری اقتصـادی هسـتند در اولویت کار مدیران و مسـئولان برنامه ریزی روسـتایی و نهادهایی که به صـورت اجرایی با روسـتا در ارتباط هستند قرار گیرد.

کلید واژه‌ها: خشکسالی، تاب‌آوری، اقتصاد خانوار روستایی، بخش ماهیدشت.

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Original Article

An Overview on Success of the LEADER Approach in European Countries

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Abstract

Purpose- This study aimed at identifying the successful aspects of the LEADER Approach in European countries.

Design/methodology/approach- The methodology in this study is a systematic overview. The statistical population of the present research consisted of 30 scientific articles on the LEADER Approach published in different journals during 2000-2017.

Findings- The results showed the success cases (items) of the LEADER Approach in European countries can be defined in four general categories contains: economic, social, environmental, and management dimensions. Moreover, among the successes of the LEADER Approach, the economic dimension with a rate of 38.4% has the highest percentage relative to the other dimensions. One factor behind the success of the LEADER to European countries, which is an important guide for rural development programs in Asian countries including Iran, is a very important issue of networking in the rural development process, which has recently been intensely debated in the discussions of academic and executive development spheres in the EU countries. However, the effects of LEADER vary from region to region, so any generalizations between regions are likely to be unreliable. Therefore, it is still difficult to judge its true impact on rural development.

Originality/Value- The LEADER Program is one of the performed programs being implemented by European Union countries in the new vision of rural development planning. When the European Union started its new program with a completely new approach, there were a lot of skeptics against the initiative based on local development. LEADER has often been praised as a successful approach to rural development, although its implementation is not without scholarly critiques.

Keywords- European Union, Rural development, Rural areas, Socio-economic development, LEADER Program.

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1. Introduction

The European Union (EU) is a political and economic union that consists of 28 European countries. These countries, called "member states", include the countries of Austria, Spain, Estonia, Slovakia, Slovenia, Italy, Ireland, Germany, United Kingdom[1], Belgium, Bulgaria, Portugal, Denmark, Romania, Czech Republic, Sweden, France, Finland, Cyprus, Croatia, Latvia, Luxembourg, Poland, Lithuania, Malta, Hungary, Netherlands and Greece. Two official candidates in order to membership in the Union are the Republic of Macedonia and Turkey. In addition, Albania, Bosnia, and Herzegovina, Montenegro and Serbia are recognized as the candidate countries (European Commission, 2007). Some of the European countries such as Iceland, Switzerland, Norway, and European Russia are outside of the Union territory. In addition, some member countries in the Union such as the Faroe Islands, are not located in the territory of the Union. The area of the European Union is 4,422,773 km2 and its population is about 507890191 million**.**

European public policies in the field of regional and rural development and territorial cohesion play a large role in the member states. Regional and rural development policies are designed taking into account the principles of subsidiarity, partnership and additionally. According to these principles, the European Union defines general guidelines and the member states or their subnational levels develop their specific strategy and way of implementation in their Rural Development Program (RDP) within this frame (Bullmann, 1996). LEADER[2], as one part of Rural Development Policy, aims to support the development of strategies at a sub-regional level to meet specific challenges of the territory (Chevalier & Dedeire, 2014) and foster cooperation in rural areas (Pollermann, 2014). Therefore, a bottom-up approach is implemented in a so-called Local Action Group (LAG) composed of stakeholders from local government, civil society and economy which steer the implementation of their local development strategy inter alia by deciding about funding of projects (Bruckmeier, 2002; Pollermann et al., 2013; Navarro et al., 2015).

The LEADER1 approach was devised as one possibility to bring forward rural development. LEADER started in 1991 (reissued up to now four times) and is now one axis of the European Agricultural Fund for Rural Development (EAFRD) (Pollermann et al., 2014). In this new system an action group creates the development strategy of the rural area. These groups contain the local government, entrepreneurs, NGOs and civil associations. On the basis of the development strategy the valorization organization determines a frame amount for this action group. This action group has the right in the future, on the basis of their strategy, to announce competitions and choose the supported projects (Bitáné & Koponicsne, 2009). By reviewing related articles, LEADER effects are so different between regions and countries that any transnational or trans-regional generalization is likely to be unreliable (Papadopoulou et al., 2011). So it is still difficult to judge the real impact on socio-economic development (Saraceno, 1999; ECA, 2010).

Several studies have been conducted in the context of positive assessments, or, in other words, the success of the LEADER Approach in areas such as better collaboration, partnership, networking, innovation, as well as the local mobilization for appropriate projects. Moreover, in some other studies, the success of the LEADER to improving social capital has been emphasized. However, in addition to the positive estimates (successes of the LEADER Approach), the negative aspects (the failure of the LEADER Approach) are also apparent in some researches (e.g., Marquardt et al., 2010 ؛Dax et al., 2013; Pollermann et al., 2014; Gitta et al., 2012; Navarro et al., 2015; Pollermann et al., 2014; Bosworth et al., 2013; Oostindie et al., 2010; Chatzitheodoridis et al., 2006).

The following cases are mentioned the weak points of the LEADER Approach: reducing the ability of the LEADER to meet the stable and changing needs of local areas through increased regulation, reducing the independence of LAGs by increasing regulation, limited implementation of innovative projects, lack of innovative projects in the

1. Britain plans to leave the European Union.

2. An acronym derived from the French "Liaison Enter Actions de Development de l'Economic Rurale", means "Links between actions for rural development".

LEADER Approach, lack of facilities for the implementation of innovative projects, losing motivation of performers, negative understanding by some stakeholders from the role of LEADER Program in development, reducing joint projects between areas sponsored by LEADER, increasing the influence of the local government in the LEADER Program in order to the limiting independence of the LAGs, avoid the participation of deprived groups and noncompliance between optimal local opportunities, processes and disperse of financial resources. Moreover, problems in implementing a real bottom-up approach were also reported from the Netherlands: there LEADER was seen to be strongly dominated by representatives of professional rural stakeholder organizations such as municipalities, nature organizations, water boards, farmers, organizations, tourism organizations, etc. and –therefore- relatively weakly embedded in the rural area. This LAG-composition expresses little serious political willingness to strengthen participatory rural policy delivery systems (Oostindie & van Broekhuizen, 2010). In transition countries and also in some regions in southern European countries, a weak history of collective action is reported, and the collaborative approach encouraged by LEADER not engage well. For example, in Calabria, Italy: most actors still work atomistically rather than collectively because of their lack of trust in collective action (Dargan & Shucksmith, 2008). For Hungary (Katona-Kovács et al., 2011) highlight the importance to take social animation more seriously, and that social networks, local participation, the culture of co-operation and making decisions should be improved through a clear strategic approach (Pollermann et al., 2014).
The research background in the unsuccessful cases of LEADER Approach is weak, so in this research, we have only investigated the successful cases of the LEADER Approach. Many studies have carried out by researchers in this area and by use of these resources, we can survey the success cases of the LEADER in the European countries. Various studies have been conducted in this field in the European countries from the period of 1996-2017; each of these has examined various aspects of this field by use of various methods. In this study, the conducted researches in the field of LEADER were reviewed through a meta-analysis approach in order to provide a relatively comprehensive analysis of the conducted researches in this field as well as the success cases of the LEADER Approach. The purpose of this study was to identify the success of the LEADER in European countries. To do this, after selecting the researches in this field, the successes cases of the LEADER were presented and investigated. The main question of this study is: what are the fields of the success of the LEADER Approach in European countries?

2. Research Theoretical Literature

2.1. What is the LEADER?

The LEADER Program provides context for researching the emergence of new actors and power relations in rural, especially through projectification. LEADER is an acronym for Liaison Entre Actions de Development de l'Économie Rurale, meaning "Links between the rural economy and development actions" that is a local rural development method launched in 1991 by the European Commission as a Community Initiative (Lukić & Obad, 2016; Dalma & Dugulena, 2015; Bitáné & Koponicsne, 2009).
In the 2007-2013 programming period, the LEADER has been integrated within the overall EU policy for rural development. This means that LEADER is included in the national and regional rural development programs supported by the EU (Turek Rahoveanu, 2012).
Until now there were recorded five generations of LEADER Program. Timing of LEADER Program comprises the following periods: LEADER I during 1991-1993, LEADER II for 1994-1999, LEADER+ during 2000-2006, followed by the periods 2007-2013 and 2014-2020 (table 1).

Table 1. Generations of the LEADER Program

LEADER Generations	Goals	Program type
LEADER I (1991-1993)	Has experienced first time the 'bottom-up' approach of the pilot initiative in the implementation of business plans and decisions on funding at a local level for projects of rural development.	Community Initiative

LEADER Generations	Goals	Program type
LEADER II (1994-1999)	As part of the strategy for rural areas in the National Development Plans. The main objectives were acquisition of skills and development the animation for business plans in the rural areas.	Community Initiative implemented through 102 national/regional Operational Programs
LEADER+ (2000-2006)	During this time, the Member States had had LEADER Programs as separate funds of EU level financing.	Community Initiative, implemented
LEADER+ II (2007-2013)	Starting with 2007, the Leader Approach was mainstreamed within national and regional rural development Programs. LEADER Program became part of overall EU rural development policy. It was supported by the EU, alongside with other rural development axes. From 2007, the European Agricultural Fund for Rural Development (EAFRD) supports each Member State with financing for the LEADER axis within the national financial envelopes.	Obligatory RDP/ Axis 4 measure (5% resp. 2,5% for new member states)
LEADER+ III (2014-2020)	RDP 2014-2020 emphasizes on cross-cutting nature of the LEADER Program and its innovative character. LEADER Program will support innovative projects in line with the types of activities eligible for support from the RDP 2014-2020 and local community development goals	Obligatory RDP Measure 19 (5%)

LEADER Program is the fourth priority direction for financing European Agricultural Fund for Rural Development (EAFRD) and consists in implementing local development strategies for improving governance level administrative areas. The LEADER Approach is applicable in rural areas of the European Union. More than half of the EU's population lives in rural areas, representing over 90% of the European Union territory.

Cunder & Bedrac (2010), in the definition of the LEADER approach, pointing to this point: The main objectives of the LEADER Approach are the building of local capacity, new employment opportunities, diversification of activities in rural areas, stimulation of endogenous development, improvement of management in rural areas, and extension of innovation. Moreover, the specific objectives of the LEADER Approach are: participation of local communities members in the local development process and encourage innovative activities, encouraging local actors to work together with representatives of other communities within and outside the country, fostering partnerships, preparing and ensuring the implementation of local development strategies.

According to the definition of the European Commission, the LEADER Program can be characterized by seven key features, each of which is complementary to other ones and has a positive interaction with them (Turek & Rahoveanu, 2012). Moreover, Bitáné & Koponicsne (2009), Eszter (2011), Marquadet et al., (2010), Lukić & Obad (2016) have mentioned that the value of LEADER goes beyond its symbolic importance and that it does have some real effects, at least in terms of numbers. For that reason only, it was no surprise that the EU members which acceded in the 2000 expected (and hoped) that the LEADER Program would dynamize their rural development. A quarter of a century since the beginning of LEADER, the official rhetoric of the EU praises it as a successful approach to rural development, as an example of an innovative method proven to be so useful and effective that its main principles and modus operandi have been, as of 2014, transferred to urban areas, through the "Community-Led Local Development" program (CLLD) (Regulation EU, 2013). This is the last step in Leader's development, after it was integrated (main-streamed) into the national Rural Development Programs (RDP) of 2007-2013. Furthermore, it is a rare case in which rural development has provided the blueprint for its urban counterpart, which, Lukic and Obad would argue, already makes LEADER a success story, at least symbolically (Lukić & Obad, 2016).

European writers such as Brunori & Rossi (2007), Halfacree (2006), Cloke (2006), OECD (2006), Woods (2005) stay that rural areas take many forms and the challenges that different areas face require intelligent, regionally targeted responses. One of the strategies in the past decade in European countries has been done in practice, is the LEADER approach, while rural development supporting policies are based on a top-down approach. A LEADER plan works with a bottom-

up approach and local development. Public and private partners form a local action group at the local level. This public-private partnership generally involves one or more municipalities with local entrepreneurs, farmers, foresters and other people interested in developing their communities and improving the local environment. At least half of the partners in the local action group should belong to the private sector. Local action groups have prepared their local development plans; they will introduce them as a way of working. Best programs are selected by regional or national authorities to making support. Supportive payments could be allocated to local development strategies, operational costs of local groups for collaborative projects between them as well as for capacity building and mobility required for a local development strategy. Local action groups under the leadership of the LEADER, and other actors in rural development are linked and their work is linked through a national-rural network. A European network makes a cooperation between national networks as well as rural development agencies and organizations at EU level (European Commission, 2007).

As there is a long history of LEADER-implementation, there is also broad experience with research about LEADER. Table 2 gives an overview of international literature about LEADER research.

Table 2. Overview of LEADER related literature

Country	Reference	Focus / empirical basis
Romania	Marquardt et al. (2010)	Does the EU LEADER instrument support endogenous development and new modes of governance
Romania	Dalma Polgar (2015)	Characteristics of LEADER Program for rural development
Romania	Turek Rahoveanu (2012)	LEADER APPROACH" - AN OPPORTUNITY FOR RURAL DEVELOPMENT
CROATIA	Tolić et al. (2013)	IMPLEMENTATION OF LEADER MEASURES OF RURAL DEVELOPMENT
Greek	Loizou et al (2014)	Leader Approach Performance Assessment in Rural Region
Slovenia	Cunder (2010)	The Leader Approach – New development opportunity for rural areas
Greece	Arabatzis et al. (2010)	Rural development and LEADER
south transdanubian region	Bitáné et al (2009)	LEADER activity
Hamburg	Pollermann et al. (2014)	LAG
Germany	Pollermann et al. (2014)	Rural Development experiences
Spain	Esparcia (2000)	The LEADER Program and the rise of rural development
England	Bosworth et al. (2013)	LEADER as a vehicle for neo-endogenous rural development
Italy	Nardone et al. (2010)	Social capital
Italy	Osti (2000)	Partnership, interactions in LAGs
France	Buller(2000)	Creating territory, shift from LEAER I to LEADER
Denmark	Teilmann & Thuesen (2014)	LAG-municipality-interactions/ qualitative
Austria	Oedl-Wieser et al (2010)	Influence of Mainstreaming
Spain	Barke & Newton (1997)	Administration, framework
Spain	Cazorla-Montero et al (2005)	Rural development model

The following findings are a small excerpt, whereby the focus is to briefly present some background information for questions: what has been the success of LEADER's approach in European countries?

3. Research Methodology

A Systematic Overview was conducted using the qualitative method. In systematic overview studies, the analytical unit is the final report of the conducted researches. Accordingly, a list was prepared to review and select the researches for the systematic overview, which includes the following components: title of the research, author's characteristics, date of research, research's location. The subjects of the present research consisted of 30 scientific articles on the LEADER Approach published in different journals during 2000-2017. The sample was selected randomly from the listed articles. In order to evaluate the selected articles, a special form was prepared as the form of summarization and extracting information of articles that consists of two parts. The first part

relates to the year of publication and the studied country, and the second part includes the success of the LEADER Approach in the European Union (Figure 1).

The data table, consisting of the required information fields for research, was prepared in Excel software. By use of the data table, the process of summarization and classifying the data and the qualitative outputs can be conducted with more simplicity and accuracy.

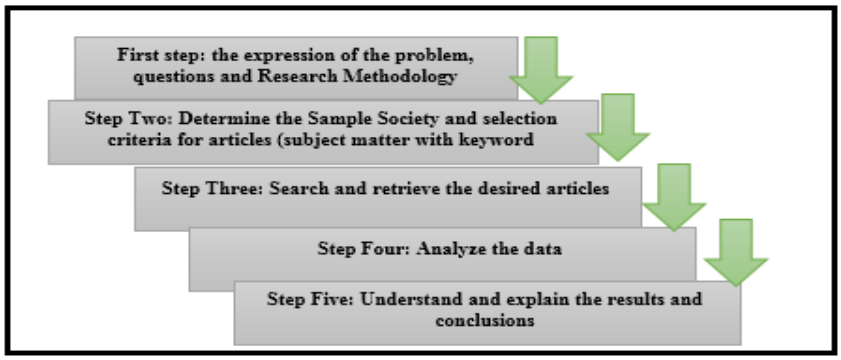

Figure 1. The process of conducting research

4. Research Findings

A review on the researches shows that the starting point of the researches in the field of LEADER Approach in Europe was in the period of 1996-2000. Then, the academic community was familiar with the research needs in this field, and in this regard, the researchers have increased in the period of 2007-2017. More than half of the research has been conducted between 2010 to 2016 years. Considering the current situation of the European countries, there is a necessity for more applied studies in this field (table 3)

.

Table 3. LEADER in the current research over the period 2000-2015 by the year of publication

Year	Number	Percentage
2000	1	**3.33**
2007	1	**3.33**
2009	1	**3.33**
2010	10	**33.4**
2011	1	**3.33**
2012	2	**6.66**
2013	5	**16.6**
2014	4	**13.4**
2015	4	**13.4**
2016	1	**3.33**

The articles studied in this research are from the countries Croatia, Romania, Western Balkan, Countries, Greek, Ireland, Poland, Portugal, Slovenia, Italy, France, Germany, Denmark, Spain, Bulgaria, South Trans Danubian Region, England. Among them, the approach of LEADER in Slovenia, Spain and Italy has been studied more than other countries.

4.1. The Success of the LEADER Approach in European Countries

In order to investigate the success cases of the LEADER Approach in Europe, we summarize the results of the researches in a form of summarization and extraction of information. After collecting information, primary coding was done. For encoding, all the things that the authors have referred to as the successes of the approach of the LEADER, was given in a brief phrase and a code is assigned to each of these cases. In this step, 49 successes case of the performed LEADER Approach from the author's point of view were

captured. In next step, codes that have the same concept were subdivided into a code. The total categories identified as successes cases of the social, environmental, and management (table 4).

performed LEADER Approach in European countries were 4 general categories: economic,

Table 4. The Success of the LEADER in European Countries

(Sources: Bedrac and Cunder, 2010; Tolic and Markotic Krstinic, 2013; Loizou et al, 2014; Arabatzis et al, 2010; Gitta, 2012; Navarro et al., 2015; High and Nemes, 2007; Esparcia Perez 2000; Bosworth et al., 2013; Pollermann et al., 2013; Dargan and Shucksmith 2008; Nardone et al., 2010; Farrell and Thirion 2005; Grieve et al, 2011; Berriet et al., 2016)

Successes		Abundance	Grouping	Total
Providing jobs for residents of the area		3		
Supports regional economy through budget LEADER		2		
Development of investment in large areas		2		
Diversity of rural economy		1		
Animal husbandry development		1		
The ability of the village people to create their own ideas		1		
Achieve regional development goals in the EU		1		
agricultural development		1		
tourism development		1		
Employment opportunities for educated young people		2		**23**
The pooling of local resources		1		
Better identification of economic needs and local solutions		1		
LEADER improve the quality of life in rural areas, both for farm families and for wider rural population		1		
Work-life balance and job environment		1		
Access to basic services and access to infrastructure and services		1		
To enhance the human capital		1		
Utilization of entrepreneurial and human potential		1		
Valorization of socio-economic performance		1		
Improved ecosystem services and environmental amenities		2	environmental	**6**
Enhanced and improved involvement of the rural population in environmental management		1		
Environmental Protection		2		
Strengthen the natural environment		1		
Maintaining special traditions of rural areas		1	Social-Cultural	**17**
Through the Leader Approach, LAGS play an important role in supporting low-population areas and villages to provide information, communication and capacity building for local developers.		1		
Reduce the aging population		1		
Increasing the level of service of the village		1		
Strengthening the cultural environment		1		
Increasing participation among people and decentralizing decision-making through LAGS		1		
Social Capital	Reinforcement of regional identity and coherence	1	Social-Cultural	
	Involvement, networking and openness	1		
Cultural capital	Enhancement of cultural rural amenities	1		
	Valorization of cultural assets	1		
a better cooperation, participation, networking, innovation and linkage between different types of knowledge, valorization of actors and suitable projects fitting to the local areas		2		
Increasing capacity through innovation		1		
Better identification of social needs and local solutions		1		
transfer of knowledge between people		1		
Improved cooperation between different groups		1		

Successes		Abundance	Grouping	Total
Multi-level governance	Level of decentralization	1	Managerial	14
	Coordination between different levels of governance	1		
Local governance	Partnership composition and empowerment of local actors,	1		
	Quality of governance	1		
Improved cooperation between the municipal authorities		1		
Improved cooperation beyond administrative borders		1		
Increasing decentralization of power in rural areas, with an emphasis on local groups		3		
improved sense of acting jointly in and for the region		1		
Promoting inter-territorial and transnational cooperation		1		
The important role of LAGS in supporting low-livestock and underdeveloped villages and providing information, communication and capacity building for local development stakeholders		1		
LAGS run as a rural organization at the national level of sustainable development in small villages		1		
Mutual Learning and Integrated Approach to Solve Sophisticated Economic and Social Problems through Networking in LEADER 's Approach		1		

4.2. Analysis LEADER

Generally, based on the findings in the table 4, the success cases (items) of the LEADER Approach in European countries are 49 cases (items). It is necessary to mention that some parts of the successes are mentioned in many articles. Therefore, in table 4, the frequency of success rate of this approach has been noticed. The frequency revealed that a successful case of LEADER Approach has been noticed in several articles. As it can be seen in table 4, among the successes of the LEADER Approach, the economic dimension with a rate of 38.4% has the highest percentage among other dimensions. In this regard, firstly, the indices of this dimension are considered.

The agricultural and food sector have an important contribution to the economy of the European Union, accounting 15 million jobs, equivalent to 3.8% of the total jobs and 4/4 percent of GDP. In recent years, many rural areas in the European Union have faced a structural crisis. The traditional agricultural and forestry economy has been threatened by international rivals, changing demands of costumers, and increasing the concentration of production units. As a result, job opportunities were limited and basic human resources were weakened by the migration of young people from villages (Khorasani et al., 2016). However, political decision-makers were looking for a means to solve economic crises in rural areas of EU countries. In this regard, the LEADER Approach was recognized as a scientific tool.

Success of the LEADER approach is expected impacts on the rural economy. There are five types measures: those relating to diversification and business development, including tourism; those relating to more effective service provision, including village renewal; those relating to the upgrading of rural heritage; and those relating to training and human capital development. First part (work-life balance and job environment) includes additional local employment opportunities for farm households outside the agricultural sector, improvement of working conditions for rural population as well as job satisfaction.

The second part (access to basic services and access to infrastructure and services) includes the creation/enhancement as well as accessibility and attainability of basic services for the economy and rural population, including services offered by small or newly established enterprises or diversifying farms, which is contributing to the upgrading of rural attractiveness. The third part also (to enhance the human capital), includes capacities for local actors required for the diversification of the local economy and provision of local services. The fourth part is utilization of entrepreneurial and human potential, including broad diversification of economic activities, to stimulation of small enterprises and promoting employment. Finally, the fifth part is valorization of socio-economic performance, including the increase of economic activities linked to resources and potentials specific to the area (Grieve et al., 2011).

Another success of the LEADER Approach is rural economic diversity. Considering the economic diversity in rural areas of the European Union, that has covered a set of agricultural hubs in the world, rely on agricultural is not trustworthy. Efforts to implement rural economic diversification strategies through the gradual replacement of a common agricultural policy with a rural, agricultural, and food policy, which does not consider village as an agricultural hub, and seeks to benefit from all the capabilities of the culture, economy, environment and heritage of villages in line with the economic development of the villages, is the common feature of rural development planners in the European Union. Indeed, paying attention to the approach in this field is a significant point for specialists. Several cases have led to the lack of significance of the diversification approach of rural economies in other non-EU countries such as the unreasonable emphasis on the agricultural and rural economy, mainly due to the overcoming the mere engineering vision of rural spaces and neglect from the enormous natural and cultural heritage of the villages (Khorasani et al., 2016).

As seen in table 4, 28.4 percent of the articles mentioned the success of the LEADER Approach in the social sector. One of these successes in the social dimension is the improvement of life quality, which is divided into two parts: The first part is related to social capital, and the second part is related to cultural capital. Both of social and cultural capital are also divided into two parts. In the sense of social capital, the relevant impacts in this regard could be increased interaction, the corporate sense of actors involved, the extent or growth of solidarity between different local or regional interest groups and the density of communication structures in regions. At a wider level, the utilization of local specificities and the valorization of area specific characteristics can arise as a result of rural development activities. The awareness and strengthening of identity and image characteristics or special competences can enhance an area's popularity, also in the second part (involvement, networking and openness), the extent and intensity of involvement" in information, participation- and co-operation-structures can be considered as a result or stronger social relationships (Grieve et al., 2011).

The cultural capital is also divided into two parts. The first part is enhancement of cultural rural amenities. The expected impacts often include the improvement of housing and living circumstances in villages, energizing and valorization them through the stimulation of businesses and residential use as well as the recreational and leisure offers. In the second part (valorization of cultural assets), different impact categories concern the enhancing of touristic, natural and cultural activities by the local heritage and the valorization of cultural assets accompanied by an increasing attractiveness of rural areas for recreation, living and cultural activities (Grieve et al., 2011). Moreover, another success of the LEADER approach is increasing capacity through innovation. the EU's innovation policy states that regional policy would be an important route for encouraging innovation (EU-Commition, 2006). Actually, innovation (in different senses) is mentioned in various pieces of literature as an important pillar for the development of rural areas or as a rescuer from problems in rural areas (Gitta et al., 2012). For example, Neumeier (2011), states that innovation is an essential aspect of finding suitable solutions for problems of rural development. Against the background of demographic change in rural areas, social innovations are regarded as one of important aspects of successful rural development (Papageorgiou, 2011). In addition, innovation has been identified as one of the five key drivers of productivity, so it is one of the key determinants of the relative economic performance of rural areas (Agarwal, 2009 and HM. Treasury, 2001). LEADER provides opportunities to realize innovative projects to try out new solutions and meet the specific needs in the region (Gitta et al, 2012). According to the authors' view, LEADER is an innovative approach within EU rural development policy, and a method of mobilizing and promoting of the rural development in local rural communities. Moreover, experience has shown that LEADER can bring significant changes in the daily life of people in rural areas. It also encourages rural territories to explore new ways to become or remain competitive, to maximum value the assets and to overcome the difficulties they may face, such as an aging population trend, low levels of services or lack of employment opportunities. Thus, LEADER improve the quality of life in rural areas, both for farm families and for wider rural population (Turek Rahoveanu, 2012).

The success of the managerial sector to the LEADER Approach with a frequency of 14 is the 3rd rank of success based on the number of articles. Rural governance is a major concern of the LEADER methodology. So the Common Evaluation and Monitoring Framework (CMEF) for EAFRD includes the question: to what extent has the LEADER Approach contributed to improving governance in rural areas? (Grieve et al., 2010). The focus of rural governance is the contributions to steering issues at the level of one LEADER-Region to support rural development. It can be defined as a network-like collaboration between local actors of three sectors (public administration, private/ economic sector and civil society) aimed at collective action (Grieve et al., 2010). In this way, another success of the LEADER approach is expected impacts on governance. The main impact of Quality of Life measures and LEADER on governance can be summarized at two levels. First part is multi-level governance ant it is divided into two parts. First part, level of decentralization, assessing its 'dynamic' and innovative contributions to improved regional rural policies and empowerment of local actors (vertical integration and subsidiarity). The second part is coordination between different levels of governance, referring to any coordination networks or joint actions that have been developed or supported by the vertical level (vertical integration and co-operation).

The second part of this success is local governance. It is divided into two parts: partnership composition and empowerment of local actors and quality of governance. Partnership composition and empowerment of local actors, assessing commitments of partners inside of Local Action Groups (LAG) and their support of the local development also beyond the programming period (participation, horizontal integration, legitimacy and high quality of learning mechanisms). Eventually, quality of governance, assessing transparency and common trust among participating local actors (transparency and high quality of communication and conflict management). Actually, governance in its various forms is a highly important theme when evaluating the impacts of LEADER measures. According to the CMEF documents the LEADER Approach should contribute to improve governance in rural areas. In several policy documents (EC, CoE, OECD and UNDP) the topic of good governance has been discussed and associated with the following aspects: transparency, participation, horizontal and vertical integration, legitimacy, subsidiarity, high quality of communication and conflict management, high quality of learning mechanisms. Good governance is not only important for the successful implementation of LEADER projects, but it also contributes to improving the Quality of Life (Grieve et al., 2011). Other achievements of the LEADER Approach are improved cooperation between the municipal authorities, improved cooperation beyond administrative borders,and improved cooperation between different groups. But not only improvements in the quality of networking were mentioned but also aspects of the innovation-process itself: transfer of knowledge between people and inspiration for projects and actions and improved sense of acting jointly in and for the region (Gitta et al., 2012).

Another success aspect of the LEADER Approach is mutual learning and an integrated approach to solving complex economic and social problems through networking in the LEADER Approach. Indeed, bottom-up approach is the basis for planning in the European Union. The basis for approval and implementation of programs is the consideration of local needs, requirements, and capabilities, which are mainly implemented by the private sector in the form of projects supported by the economic and administrative sectors of European Union. In other words, the planning system in EU not only limited to providing macro strategies or some executive plans, but also the program seeks to identify and assess the capabilities and needs at the local level, find solutions to solving problems, and optimal utilization of the capabilities. It is important to establish a network of projects at the local level with completeness and high and satisfaction productivity, as well as the virtual network of these projects to share successful experiences and the use of knowledge among the people who compile these networks. Also, creating a local partnership as a local action group (logs) is a major feature. Indeed, this group is responsible for identifying and implementing a local development strategy and deciding on the allocation of resources and its management. LAGs must use public and private contributor in an efficient manner. Rural actors active in local projects include professional organizations, citizens and trade unions, residents

and local organizations, local political representatives, environmental associations, cultural services providers including the media and associations of women and youth. As can be seen in Table 4, the most important successes from the authors' point of view in the field of LAGs are: 1. Important role of logs in supporting low-population and undeveloped villages and providing information, communication and capacity building of people committed to local development; 2. LAGs as a rural organization at the national level, that implement the sustainable development in the small villages; 3. Creating job opportunities for educated young people; 4. Increasing participation among people and decentralization of decision making: and 5, Increasing decentralization of power in rural areas.

As can be seen in table 4, the environmental success of the LEADER Approach with 10% has the 4th rank from the author's point of view. One of the other successes of the LEADERs approach is expected impacts on the rural environment. The main expected impact is to enhance the well-being of the population due to the improved environmental situation. This includes two main aspects first part, is improved ecosystem services and environmental amenities. This may have a direct impact on human well-being through the direct provision of goods or through the direct results of regulatory ecosystem services and supporting ecosystem services. Besides this services such as the beauty of the landscape, the overall image of the territory, the spiritual and inspirational values, shall be considered as well. The second part also includes enhanced and improved involvement of the rural population in environmental management; That can lead to increased awareness, responsibility (local and regional) and identification with their own region, its natural resources and environmental qualities as important contribution to quality of life (Grieve et al., 2011). Table 5 and figure 2 show some statistic and graphic view of the LEADER Approach based on the articles reviewed.

Table 5. Grouping Successes

Percentage	Abundance	Grouping the success of the Leader Approach in the European Union
38/4	23	Economical
28/4	17	social
10/0	6	environmental
23/4	14	Managerial

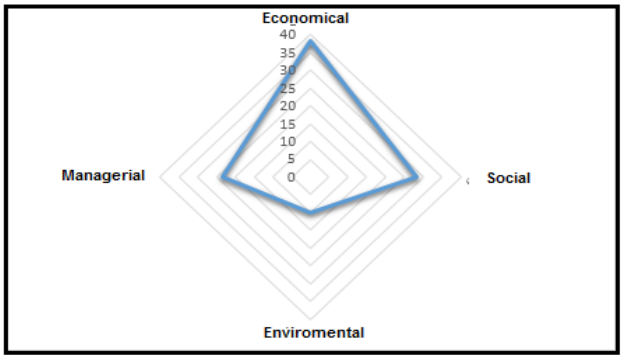

Figure 2. Percentage of the success rate of the LEADER to article authors

5. Discussion and Conclusion

By the 1990s there were some inappropriate situations like improper contribution to GDP, villages exposed to evacuate, and the negative growth of the rural population in most of the member states of the European Union. However, the European Union meet the problems by the creation of a coherent planning system and rebuilding the regions, instead of accepting the existing conditions, adopting a passive approach and urbanity policies, avoiding agriculture, relying on industrial and service development. Investigating the LEADER Program in the EU countries reveals that the establishment of local institutions and using their ability in the implementation of rural development programs

including the LEADER Approach, can result to a higher productivity of the LEADER due to compliance with regional needs as well as provide the platform for continuity of programs, by satisfying all influential and stakeholders groups. Perhaps the success of the LEADER Approach in the EU is due to the integration of all rural development programs. In each of European countries, each of the executive systems considers the rural development in a coordinated manner, and consider the problems of the villages in priority compared to urban issues.

Another factor behind the success of the LEADER to European countries, which is an important guide for rural development programs in Asian countries including Iran, is a very key issue of networking in the rural development process, which has recently been intensely debated in the academic and executive development spheres in the EU countries. The same look at the leadership approach of the EU shows that the creation of local institutions and the use of their power at all stages, all rural development programs can, in addition to providing higher utilization of programs. In order to adapt regional environments, the continuity of programs and the planning system through the satisfaction of all stakeholders will be provided. The negative growth of rural populations in most of the member countries of the Union, the proposed package has created the LEADER approach in the form of economic and social organization of rural areas, will have the ability to overcome development and prosperity and improve the quality of life from other rural areas.

The success of the LEADER Approach in European countries can be defined in four general categories contains: economic, social, environmental, and management dimensions. Among them the economic dimension has the highest percentage relative to the other dimensions. However, the effects of the LEADER are so different between countries and regions that any transnational or trans-regional generalization is likely to be unreliable. Papadopoulou et al. (2011) mentioned this point. As another example, focusing on the relevance of social networks for LEADER in Romania, Marquardt et al. (2012), found that the complexity of the program, weak administrative networks, political influence, and heritage of the socialist era inhibit the smooth introduction of the LEADER instrument.

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Original Article

مروری بر موفقیت رویکرد لیدر در کشورهای اروپایی

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چکیده مبسوط

۱. مقدمه

رویکرد لیدر از جمله برنامه‌های اجرا شده و در حال اجرای کشورهای اتحادیه در چشم‌انداز نوین برنامه‌ریزی توسعه روستایی است. تاثیرات رویکرد لیدر بین مناطق و کشورها به قدری متفاوت است که هر گونه تعمیم بین‌المللی یا فرامنطقه‌ای غیر قابل اعتماد خواهد بود. بنابراین قضاوت در رابطه با تاثیرات لیدر در توسعه اقتصادی و اجتماعی و... روستاهای کشورهای اتحادیه اروپا بسیار دشوار است. با توجه به اینکه شکست‌های رویکرد لیدر در مقالات مطالعه شده بسیار کم بوده، بنابراین در پژوهش حاضر تنها به بررسی موفقیت‌های رویکرد لیدر پرداخته شده است. مطالعات و بررسی‌های بسیاری در این حوزه توسط پژوهشگران انجام شده است تا بتوان از طریق آنها به میزان موفقیت رویکرد لیدر در کشورهای اروپایی دست یافت. از سال ۱۹۹۶ تا سال ۲۰۱۷ در کشورهای اروپایی پژوهش‌های مختلفی در این زمینه انجام شده است که هر یک از آنها ابعادی از این موضوع را با شیوه‌های گوناگونی مورد بررسی قرار داده‌اند. هدف پژوهش حاضر دسته‌بندی و شناسایی موفقیت‌های رویکرد لیدر در کشورهای اروپایی می‌باشد. بر این اساس، پس از شناسایی مقالاتی که به موضوع مورد بحث پرداخته‌اند، موفقیت‌های رویکرد لیدر در نمونه‌های مورد مطالعه، ارائه شده و هر یک از آنها نیز مورد بررسی قرار گرفت. پرسش اصلی در پژوهش حاضر چنین مطرح بوده است که: موفقیت رویکرد لیدر در کشورهای اروپایی در چه زمینه‌هایی بوده است؟

۲. مبانی نظری تحقیق

رویکرد لیدر زمینه را برای پژوهش در مورد ظهور عوامل جدید و روابط قدرت در روستا به ویژه از راه برنامه‌ریزی فراهم می‌کند. لیدر، مخفف مشتق شده از عبارت "ارتباط بین اقتصاد روستایی و اقدامات توسعه" در زبان فرانسه است که در واقع، یک روش محلی توسعه روستایی است که در سال ۱۹۹۱ توسط کمّیسیون اروپا به عنوان یک طرح محلی راه‌اندازی شد. از آن زمان به بعد، رویکرد لیدر در سیاست کلی اتحادیه اروپا برای توسعه روستایی در نظر گرفته شد. این به معناست که لیدر در برنامه‌های توسعه روستایی ملی و منطقه‌ای از سوی اتحادیه اروپا مورد حمایت قرار گرفته است.

۳. روش تحقیق

این پژوهش که از نوع فراتحلیل است، به فراخور نیاز با استفاده از روش کیفی انجام شده است. در مطالعات فراتحلیل واحد تجزیه و تحلیل، گزارش نهایی پژوهش‌های انجام شده درباره موضوع بررسی است. با توجه به این مطالب، برای بررسی و انتخاب پژوهش‌های انجام شده برای فراتحلیل فهرستی از مقاله ها تهیه شد که شامل این مولفه‌ها بوده است: عنوان پژوهش، مشخصات نویسنده، سال انجام پژوهش، محل اجرای پژوهش استفاده شده است. جامعه آماری پژوهش حاضر شامل (۳۰) مقاله علمی در زمینه رویکرد لیدر است که طی سال‌های (۲۰۰۰-۲۰۱۷)، در مجلات معتبر علمی به چاپ رسیده‌اند. نمونه‌ها به صورت تصادفی ساده از بین مقالات مندرج انتخاب شده‌اند. به منظور فراتحلیل مقالات انتخاب شده فرم مخصوصی با عنوان فرم تلخیص و استخراج اطلاعات مقالات تهیه شد که مشتمل بر دو بخش می‌باشد:

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بخش اول مربوط به سال انتشار مقاله و کشور مورد مطالعه و بخش دوم نیز موفقیت‌های رویکرد لیدر در اتحادیه اروپا را شامل می‌شود.

۴. یافته‌های پژوهش

مرور پژوهش‌های انجام شده نشان می‌دهد که در بازهء زمانی ۱۹۹۶ تا ۲۰۰۰، آغاز پژوهش‌های حوزه رویکرد لیدر در اروپا بوده است و رفته رفته جامعه دانشگاهی با ضرورت‌های پژوهش در این حوزه آشنا شد و از سال ۲۰۰۷ به بعد تا سال ۲۰۱۷ این پژوهش‌ها افزایش یافت. بیش از نیمی از پژوهش‌ها در فاصله سال‌های (۲۰۱۶-۲۰۱۰) به انجام رسیده است. به نظر می‌رسد با توجه به شرایط کنونی کشورهای اروپایی، نیاز به انجام مطالعات بیشتر و کاربردی در این حوزه بیش از پیش احساس می‌شود. همچنین، بررسی‌ها نشان می‌دهد بیشترین تعداد پژوهش‌ها و مقالات در این زمینه در کشورهای (کرواسی، رومانی، بالکان غربی، یونان، ایرلند، لهستان، پرتغال، اسلوونی، ایتالیا، فرانسه، دانمارک، اسپانیا، بلغارستان، انگلیس و..)، و توسط نویسندگانی از جمله (پولگار و دوگیلنا، ۲۰۱۵، آدریان؛ ۲۰۱۲، تولیک و مارکوتیک، ۲۰۱۳، لویزو، ۲۰۱۴، اربلتزی و همکاران، ۲۰۱۰، بیرو و گیورک، ۲۰۰۹، گیتا، ۲۰۱۲، نارو و همکاران، ۲۰۱، هایگ و نامس، ۲۰۰۷، بیرولو و همکاران، ۲۰۱۲، پریز، ۲۰۰۰، بوسورث و همکاران، ۲۰۱۳، دارگان و شاکسمیت، ۲۰۰۸، میتس و همکاران، ۲۰۱۰، ناردون و همکاران، ۲۰۱۰، گریو و همکاران، ۲۰۱۱، بریت و همکاران، ۲۰۱۶)، صورت گرفته است. از بین مقالات مورد مطالعه، رویکرد لیدر در کشورهای (ایتالیا، اسپانیا، اسلوونی) بیشتر از دیگر کشورها، مورد مطالعه قرار گرفته شده است. در نهایت مجموع ابعادی که به عنوان موفقیت‌های رویکرد لیدر در کشورهای اروپایی تشخیص داده شد، شامل: ابعاد اقتصادی، اجتماعی، زیست محیطی و مدیریتی می‌باشد. همچنین نتایج نشان داد، در بین موفقیت‌های رویکرد لیدر، بُعد اقتصادی آن با ۳۸/۴ درصد بیشترین درصد را نسبت به سایر ابعاد به خود اختصاص داده است.

۵. بحث و نتیجه‌گیری

یافته‌های به دست آمده به خوبی گویای وضعیت موجود بخش کشاورزی و جوامع روستایی در کشورهای اتحادیه اروپاست. سهم ناچیز در تولید ناخالص ملی، روستاهای رو به تخلیه، و رشد منفی جمعیت روستایی در غالب کشورهای عضو از مهمترین مسائلی است که در نگاهی اجمالی توجه را به خود جلب میکند. با این حال، اتحادیه اروپا به جای تن دادن به شرایط موجود و اتخاذ موضع منفعلانه و در پیش گرفتن سیاست‌های شهرگرایانه، کشاورزی‌گریزی و متکی بر توسعه صنعتی و خدماتی، با ایجاد یک نظام برنامه‌ریزی منسجم، هم به لحاظ پوشش جغرافیایی و هم به لحاظ جامعیت عملکردی و اجرایی، به استقبال تغییرات، مخاطرات و در یک کلمه بازساخت در حال وقوع در نواحی روستایی با استفاده از رویکرد لیدر رفته است.

کلیدواژه‌ها: اتحادیه اروپا، توسعه روستایی، نواحی روستایی، توسعه اجتماعی – اقتصادی، لیدر.

تشکر و قدرانی

پژوهش حاضر حامی مالی نداشته و حاصل فعالیت علمی نویسندگان است.

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Original Article

Rural Tourism Development in Guilan: A Grounded Theory Study (Case Study: Rahmatabad and Blukat District in Rudbar County)

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Abstract

Purpose- Rural tourism, in the perspective of developed economies, is considered as a context-based experience that has a broad range of attractions. Also, it can increase the opportunities to provide services to local communities. Thus, their maintenance has become an integral part of the rural economy. In this regard, the study explored the understanding of rural tourism development in Rudbar County, Guilan province.

Design/methodology/approach- This study, in terms of goal is applied-developmental, in terms of paradigm is qualitative, and in terms of method is a grounded theory which is based on an inductive approach. The statistical population consisted of two groups of key rural informants and tourists of Rudbar County. Using a purposive sampling, 18 people were selected by snowball method and data were collected applying in-depth and semi-structured interviews, reaching saturation. To analyze the narratives, three stages of open, axial and selective coding method were used.

Findings- Findings showed that the vital commodities of rural tourism in Rudbar are the supply of a mixture of tourism approaches such as ecotourism, agrotourism and participatory approaches such as the view of scenic byways. In the elevated villages near Darfak peak, the commodities are long hiking or cycling alongside Sefidrood River as well as heritage areas. Also, in the development of rural tourism in the study area, the categories of products of the destination, space opportunities of the destination, infrastructure of the destination, cultural support and beliefs of the destination, responsible participation of the destination, cultural acceptance of the destination, marketing for the destination, human capital of the destination, employment in the destination were important. The most important category (core category) was known as "tourism product development policy".

Research limitations/implications- Lack of proper access to infrastructures such as mobile coverage accessibility, Internet and accommodation opportunities, frequent cut-offs of tap water in some villages for long hours, and access to tourists and key local informants were among the problems in the way of this study.

Practical implications- In order to achieve the development of rural tourism, it is suggested that special attention be paid to the development policy of Guilan tourism product supply in different dimensions. Since most of the incoming tourists to Guilan are nature tourists, increasing the village's service such as improving mobile and Internet access, improving the village's water and electricity quality, travel agency offices and active tour operators in the villages, automobile repair shops, local food restaurants and eco-resorts are vital.

Originality / Value- A grounded theory systematically examines phenomena in their natural state in the form of regular steps. In this method, generalization is not the purpose. Instead, the goal is to understand the phenomenon and its various dimensions.

Keywords- Grounded theory, Rural tourism, Guilan, Rudbar County.

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1. Introduction

Tourism is an action that has existed for a long time in human societies and has gradually evolved along with the historical stages to this day and is now known as one of the foundations of globalization and a distinct symbol of space-time compaction. This phenomenon is generally based on the factor of travel and transportation, which comes from various psychological, cultural, social and economic human needs (Moghaddasi Jahromi, 2016). Influenced by post-modern transformation, one of the things that makes peoples decide when choosing a destination is the business environment in local communities, and in return, this is one of the crucial determining factors of development and growth of tourism demand (Moradi et al., 2019). Research shows that unique rural environments underscore traits such as originality, personal communication, individualism and cultural heritage, and a rapidly growing urban population (Gartner, 2004; Long et al., 2000). Urban residents are tired of their daily problems and respectfully seek out the identity of rural areas to spend their leisure time there. They also look for small pleasures (e.g., visiting natural environments, enjoying food and cultural experiences). Chambers (2009) proposes the identity or correctness of assumptions as the core to increase the supply of goods to the tourist destination.

For the developed economies, rural tourism can be considered a country-related experience that includes a wide range of attractions and activities. They may (or may not) be in the field of agriculture and increase opportunities to provide services to local communities. In the same time, they can change the nature of geographical landscapes. These geographical spaces or landscapes are vital commodities in rural tourism and must be protected. The importance of conserving habitats or nature has become an integral part of the rural economy. Rural tourism brings visitors who tend to find goods and services that improve their expected lifestyle (Oriade & Rabinson, 2017). The importance of rural tourism in today's world of economics is so evident that the World Tourism Organization has introduced the slogan of World Tourism Day (September 27) in 2020 "Tourism and Rural Development" (World Tourism Organization, 2019). This slogan indicates the unique ability of the rural area to create economic development and provide opportunities outside the big cities to achieve a new definition of prosperity in the twenty-first century. Iran as one of the countries that has experienced various civilizations and has a great variety of tourist attractions, is a unique place for rural tourism.

According to the Iranian 20-year vision plan for tourism, Iran should have 20 million foreign tourists by 1404 AH (2025 AD). Also, Iran's share of global tourism revenue will increase from 0.7% in 2004 to 2% in 1404. So that in 1404, Iran earns about 25 billion dollarts annually from tourism (Karmidekordi et al., 2015). Guilan province is one of the populated areas located in the north of Iran, which in terms of economic geography, production and economic advantages, infrastructure, trade-services, natural capacities and potentials (water and soil), strategic and commercial position in the northern region of the country, has a high potential and capability in creating suitable spaces for tourism, especially in rural areas. Numerous factors such as favorable climate, moist and fertile soil, expansion of communication roads and having more than 70 typical tourist areas, deltas, plains and mountains and pristine natural landscapes have turned Guilan as a center of ecotourism in Iran (Sadri, 2016).

In this province, Rudbar County, with its Mediterranean and mountainous climate, has many basic and special rural tourism goods. There are more than 20 villages with tourist attractions in different areas (agrotourism (agricultural tourism), holidays with special interest, ecotourism (nature tourism), hiking, cycling, horseback riding, mountaineering and adventure tourism, fishing, food tourism, religious tourism (shrines) and almost all other possible forms of tourism with events, festivals and even visiting friends and relatives), all of which indicate the significance of this county. The number of Rudbar tourist attractions in Rahmatabad and Blukat District, which are located on the Qazvin-Rasht freeway, is significant. It implies that the rural areas of this district have been effective in economic developments, regional innovation flows and rural production system. In creating a wide range of such activities, considering the nature and supply conditions in rural areas is of particular importance. In rural areas of Rudbar, the supply of these activities is offered with a larger number of small and medium capitals. This leads to evident need for a balance of supply and demand in rural areas to encourage indigenous (and non-indigenous) people to develop their jobs in most rural economies. This leads to an opportunity to maximize the positive effects of tourism activities in the region. In the present qualitative research, using grounded theory, supply

and demand opportunities for rural tourism development in Rahmatabad and Blukat District of Rudbar County in Guilan Province are extracted in a deep and comprehensive way and presented in the form of a conceptual model, thus the main question that is to be answered is: what is the understanding of the key informants of the villages and incoming tourists from the development of rural tourism in Guilan?

2. Research Theoretical Literature

In the new trends of development, thinking at both national and international levels, a village is introduced as a place with its own economic characteristics of entrepreneurship and tourism. It also has a special place in economic and social knowledge (Rouzbahani et al., 2020; Roknadin Eftekhari & Badri, 2013). Tourist attractions are the main reason for tourists to visit rural destinations and is considered as the key element in locating tourist sites. In other words, the development of tourism is based on the existence and arrangement of tourist attractions. Although attractions are a vital element in the tourism system, tourism is a framework in which the interaction among its components forms the tourism system.

According to Leiper (1979), tourism consists of three interrelated sub-sectors that form the entire tourism system. These three sections are the regions of departure, transition and destination. Accordingly, when the destination area is identified, both departure and the transition areas are related to it, which needs to be recognized, arranged and planned. Different theories have been presented on how to identify and introduce the region (Leiper, 2004; Leiper, 1990). The first theory in this direction was proposed by Christaller in 1963, the step-by-step development of tourism destinations. Influenced by his ideas, Plog (1972), Cohen (1978), and Doxey (1975) presented a model in which the stages of development of a tourist destination are explained. The first stage is discovery, interaction, development, and stagnation. The most important step is to discover the area which is based on the initial action of adventurous groups and is continued by others and becomes a normal area for tourism. On the other hand, tourism is also grounded in the basic factor of travel and transportation. Therefore, their changes are subject to various changes such as travel motivation and means of transportation (Mousavi, 2019).

Tourism is defined by Leiper (1990) as the movement of people from a tourist providing area to a tourist destination, where they stay for a period of time. Rural tourism is also defined as follows (Killon, 2001): A multifaceted activity that takes place in an environment outside of urban areas. This activity is part of the industry that is carried out by small-scale tourism businesses and is applicable in areas where land is used by agricultural businesses. This activity should be done as a suggestion in a variety of experiences in which the emphasis is on the experience of tourists using the products and activities in rural areas. Rural tourism includes various items such as farm holidays, agritourism (agricultural tourism), special interest holidays, ecotourism (nature tourism), hiking, cycling, horseback riding, mountaineering and adventure tourism, sports tourism, health, medical and welfare tourism, hunting, fishing, food tourism, religious tourism and almost all other possible forms of tourism include events, festivals and even visiting friends and relatives. In creating a wide range of such activities, considering the nature and supply conditions in rural areas is of particular importance (Oriade & Rabinson, 2017). Attractions are of the most important reasons people travel to a specific destination. Tourism attractions as an important factor, due to their special features and desirability, can attract tourists from different places and distant lands. The more diverse, unique and attractive the tourist attraction, the higher power of traction and as a result the wider the sphere of influence. The importance of attractions is of a great importance that the availability of accommodation and catering facilities, souvenir shops, and handicrafts depends on the existence of at least a few primary attractions, which may be individual or combined with larger or smaller attractions (Farjirad & Aghajani, 2009).

Other pillars of tourism are tourism facilities and services. In the culture of tourism, the set of facilities and equipment related to transportation, accommodation, hospitality, entertainment and side services related to tourism are called tourism facilities and services. Residential facilities are mainlyhotels and guest houses, tourist camps, boarding houses and motels and catering facilities also consist of restaurants, food stalls, cafes and coffee shops, etc. Recreational facilities include parks, swimming pools, sports fields, clubs, etc. In addition to these facilities, there is a series of service activities that indirectly serve tourism. These services are mainly gas stations, automobile repair shops, airports, railways, passenger terminals, banks, travel agencies, security centers and many other required side services

(Aghajani, 2004). The tourism product differs not only from physical, goods and products, but also from other services. In other words, in the first stage, this product is experienced in a period of time and during different stages. This makes it difficult and complicated to evaluate. In the second stage, this product is risky for tourists, because in addition to having costs, the wasted time cannot be compensated. In the third stage, a part of this product is according to the personal desires of tourists, including relief from the pressures of life, gaining new experiences, entertainment and fun. Therefore, tourism planning and development require the identification of these types of motivations and demands. Recognizing motivations and demands of tourists is one of the tourism marketers' tasks. At the end, the tourism product has a duality in capability. It means that these products are not only used by non-native tourists (Zhang, 2009).

Related literatures show that the study of the grounded theory and semantic understanding of the development of rural tourism in Guilan is a new topic that is under-researched. Grounded theory in rural tourism development is an inductive and exploratory method that allows the researcher to formulate theory and proposition instead of relying on existing and pre-formulated theories. Each theory and proposition for the development of rural tourism based on this method comes from real data. Table 1 summarizes the most important research conducted in this field. According to the studies, the most important factors affecting the development of tourism in rural destinations are often in the terms of environmental, economic, social and cultural approaches, which can be mentioned in table 1 below.

Table 1. Preliminary study of the extracted variables and components affecting the development of rural tourism

Row	Researcher (year)	Research title	Obtained components
9	Karami Dehkordi et al. (2015)	Qualitative assessment of rural tourism problems in Chaharmahal and Bakhtiari Province using grounded theory (case: Dimeh Village in Koohrang County)	Problems are related to infrastructure, marketing, health, souvenirs and handicrafts, government and tourism, human resources, planning and research, ethnic and tribal prejudices, climate change, diminishing cultural attractions.
10	Karroubi & Bazrafshan (2015)	Development of tourism and changing cultural patterns in rural areas (Case: Asiansar village, Behshahr County, Mazandaran Province)	Changing the components of clothing style, food consumption, the spread of consumerism, indigenous language and dialect, and marriage style
11	Pazoki & Yourdkhani (2015)	Survey and scrutiny of green tourism development at TOCHAL village (Pakdasht Township),	Causal conditions: Reduction of norms of interactive practice, pessimism about the presence of tourists, migration; Interfering conditions Prioritizing immediate (not future) benefits that have led to land use change; Strategies: Changing the structure of life, changing the texture of the village, feeling dis-empowered confronting economic problems and consequences: Underdevelopment of the village, delay in the growth of self-confidence and self-reliance.
12	Rezvani et al. (2012)	Analysis of tourism effects on rural areas around the metropolis of Tehran	Despite the fact that tourism has a direct relationship with the level of development of the local community due to its positive economic effects, many negative environmental and cultural effects have also been observed.
13	Papzan et al. (2010)	Problems and Limitations of Rural Tourism, Using Grounded Theory (Case Harir Village, Kermanshah Province)	Problems are included: Lack of infrastructure and welfare facilities, lack of proper understanding of villagers and officials about rural tourism, diminishing of the village cultural attractions, lack of proper and timely information network, lack of adequate government support and attention. Limitations are included: Lack of accurate statistics, and climate change.

Row	Researcher (year)	Research title	Obtained components
14	Rouzbahani, et al (2020)	Analyzing the local-spatial consequences of the development of tourism economy with an entrepreneurial approach in rural areas(Case study: Samen district in Malayer County)	Six factors of Development of physical and environmental capital, development of rural tourism service platforms, social and improving capital of local communities, development of economic capital and employment of local communities, expansion of tourism economy development infrastructure and the entrepreneurial capital factor and the development of local communities.
15	Hrubcova, et al (2016)	The economic effects of tourism in the least developed countries	Tourism is one of the largest industries in the world. However, the negative impacts of tourism shouldn't be ignored as the redistribution of tourism income, meaningful participation of the local communities and reduction of leakages.
16	Saroyo & Tatik (2015)	Analysis of prospect of agro-tourism attractiveness based on location characteristics	They analyzed the relevance of spatial features such as natural attractions, nature, hospitality, providers, tourism services, support facilities, and safety factor against the attractiveness of the beach using nonlinear regression. Based on this, the relative attractiveness of Goa beach was investigated by Markov chain method and showed that 69.9% of the tourist attraction in coastal areas is influenced by spatial features. 68.9% of it is dedicated to natural attractions
17	Mikulić & Kožić (2011)	Exploratory assessment of tourism sustainability in Croatian destinations	This article assesses the sustainability of tourism in Croatian tourist destinations using economic, social and environmental indicators based on the indicators of the World Tourism Organization. Data analysis indicates different levels of stability in different regions. Finally, planning in different time periods, according to the type of instability in each region was recommended.
18	Nepal (2007)	Tourism and rural settlements Nepal's Annapurna region	Tourism had historical, social, and economic influences on the transformation of rural settlements.
19	Marcouiller et al (2004)	Analytical effects of tourism in coastal areas of the United States	They showed that most of the effects of tourism is on the amount of employment and income. And the key components of the rural development structure have been neglected

3. Research Methodology

3.1 Geographical Scope of the Research

Rahmatabad and Bluckat District is one of the four sections of Rudbar County, which is located between 36 degrees and 43 minutes to 37 degree and 5 minute north latitude and 49 degree and 27 minuts to 49 degres and 42 minute east longitude of the meridian. The settlements height in this area oscillates between 145 meters above sea level in Tutkabon (center of the district) and 740 meters in Hajideh village of Dasht-e Veyl District. These altitudes in Bluckat Rural District varies virtually the same. The height of Bijar city, the center of Bluckat Rural District, is 140 meters above sea level. Study area is limited from northwest to Saravan Rural District of Rasht County, from north and northeast to Khararoud Rural District of Lahijan County, from west and southwest to Rostamabad Rural District, from south to Central District of Rudbar County, (Kolshtar Rural District), from the southeast, it is limited to Amarloo District (Khorgam Rural District) of Rudbar County and from the east to Deilman Rural District of Lahijan County. According to the 1991 division, the study area is 562 square kilometers, which covers 21.8% of the county. Rahmatabad and Bluckat is one of the three districts of Rudbar County which has three rural districts of Rahmatabad, Dashtvil and Bluckat and 68 villages (figure 1) (Salimi Sabhan ، Hojjat Shamami, 2019, as cited in Governorate of Rudbar County, 2016).

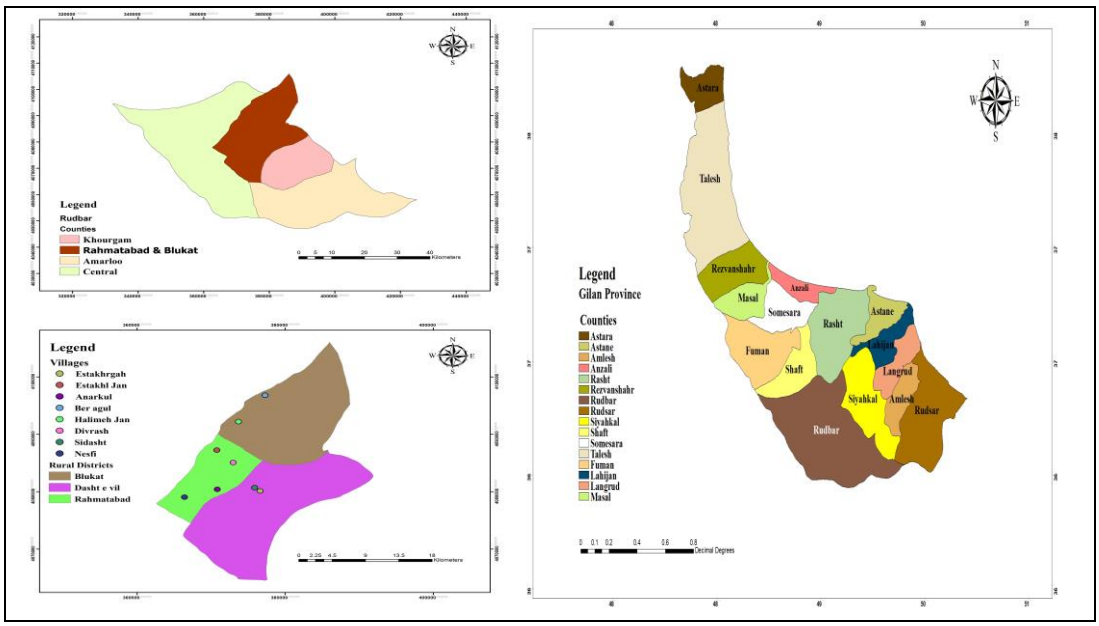

Figure 1. Political divisions of Guilan province and Rudbar County in Districts and studied villages.

3.2. Methodology

In this study, in order to provide a deep and clear image of rural tourism development in Rahmatabad and Blukat District in the form of a model, grounded theory method was used. Thus, this study, in terms of goal is applied-developmental, in terms of paradigm is qualitative, and in terms of method is the grounded theory which is based on an inductive approach. This qualitative method, in a systematic way and in the form of regular steps, examines the phenomena in their natural situation (Moradi & Agahi, 2015, as cited in Haj Bagheri et al., 2010). In this method, generalization is not the purpose. Instead, the goal is to understand the phenomenon and its various dimensions (Giddens, 1997). The statistical population included two groups of key informants of the tourist destination villages of Rahmatabad and Blukat of Rudbar County (Estakhrgah, Sidasht, Halimehjan, Estalakh Jan, Anarkul, Nesfi, Divrash, Halimehjan and Ber Agur) and tourists of this region from Rudbar County (table 2). The statistical population and the method of sample selection were purposive sampling using in-depth and semi-structured interviews in sessions lasting at least one and half hour. The sample was determined by the snowball method and their selection was continued until the stage of theoretical saturation (reaching a stage where no new opinion or case is mentioned in the questions asked by individuals). In total, theoretical saturation was obtained from interviews with 18 key informants in the tourist villages and tourists of the region.

Table 2. The statistical population studied in the research

County	District	Center	Rural district	Tourist destination villages	Attractions and tourism capabilities	Deployment status
Rudbar	Rahmatabad and Blukat	Dasht-e Veyl village	Dasht-e Veyl	Estakhrgah	Adventure tourism, ecotourism and mountaineering, having a beautiful waterfall, scenic byways	Through the forest and at the Darfak mountain
				Sidasht	Agrotourism (strawberry), adventure tourism, nature tourism and mountaineering,	On the way to Darfak mountain,
		Tutkabon	Rahmatabad	Estalakh Jan	Adventure tourism, nature tourism and mountaineering, having pools and ponds	Mountains and ridges, the western side of Darfak
				Anarkul	Adventure tourism, nature	On the way of

County	District	Center	Rural district	Tourist destination villages	Attractions and tourism capabilities	Deployment status
					tourism and the beautiful river of Siahroud	Darfak and along side the Siahroud River
				Nesfi	Historical tourism and the ancient hills of Marlik and Peel Ghaleh, dating back to three thousand years	Mountainous, Zarbin and Zeytoon forests
				Divrash	Adventure tourism, nature tourism, Sefidab spring, Noor Cheshmeh cave and Larneh summer highland pasture.	Foothills, on the way of Darfak
		Bijar village	Blukat	Halimeh Jan	Adventure tourism, nature tourism, Aroos Lake	Along the freeway of Qazvin-Rasht, Aroos Lake
				Ber Agur	Adventure tourism, pilgrimage, nature tourism, Gosal Gashar Waterfall, in the center of Hyrcanian forest, Bijar City Lake, Kord-e-Mir plain, with two holy shrines of Imamzadeh Saleh and Ebrahim, a perspective on Darfak Mountain	In front of Hashem Imamzadeh village, along Qazvin-Rasht road

Regarding methodology, grounded theory is referred to the practical stages of constructing a theory or model in five stages (Papzan et al., 2010):

First stage is designing the research that consists of two steps of reviewing previous studies and selecting cases (research question and problem).

Second stage is data collection, which is in consistent with visiting the field study. In this study, in addition to using in-depth and semi-structured interviews, direct and non-participatory observation, field notes and group discussion, methods such as take photographs and videos, examining library and Internet documents were also used as complementary methods.

Third stage is rganizing data and writing items and concepts. At this stage, audio and video information, notes obtained from field studies were arranged, and while listening and looking at the images, considering items such as tone of voice and respondent gesture according to their location and position. Re-interpretations and re-perceptions were made in order to record the main points.

Fourth stage is data analysis, which is the main process in grounded theory and is the core of qualitative analyses. In this stage, three forms of coding were performed: Open, axial and selective coding. In this three-step and nonlinear process, titles are given to the initial themes of the data, and then concepts and categories are extracted from them, and through this, conceptual clusters are formed, each belongs to a category.

Fifth stage is the design and validation of the model. At this stage, the data becomes a theory or model. The first step is to design a central classification model that demonstrates the research themes. Each class connects different data, but is not among the data itself. Given that at this stage, the findings from analysis are around the aim of research and by linking the codes (open coding), concepts (axial coding), categories (selective coding), a paradigmatic and conceptual model of research to explain a phenomenon (development Guilan Rural Tourism) was drawn, and then approved by the respondents.

During the study, it was tried to ensure the accuracy and reliability of the research. The researchers' long-term contact and communication with the research sites, relevant officials and participants, helped to gain the participants' trust and also improved the researchers' understanding of the research environment. Participants'' review was used to verify the data and codes. After coding, the transcript of the

interview was returned to the participants to ensure the accuracy of the codes and interpretations. Codes that did not reflect the views of the participants were modified. This is one of the aspects of triangulation that leads to the internal validity of the research.

4. Research Findings

In grounded theory method, about understanding of rural tourism development in Guilan, interviews were conducted with 18 key informants in tourist destination villages in Rahmatabad and Blukat District of Rudbar County (Estakhrgah, Sidasht, Halimehjan, Estalakh Jan, Anarkul, Nesfi, Divrash, Halimehjan and Ber Agur) and the tourists inside and outside of Guilan Province and a total of theoretical saturation was obtained. Table 3 is the summary of demographic information (gender, age, level of education, purpose of visit, type of vehicle, travel history, residence status, revisting intention). The distribution of individuals of villages was as follows: 3 individuals from Estakhrgah, 3 from Sidasht, 2 from Estalakh Jan, 2 from Anarkul, 2 from Nasfi, 2 from Divrash, 2 from Halimehjan and 2 from Ber Agur village. 7 of them were female and 11 were male. The age range was from 23 to 55 years old and their average age was 37. Regarding to Education level one of them is a doctorate; There were 2 postgraduates, 4 undergraduates, 3 with diploma and 5 had some level of education. Sixteen participantsstated that the purpose of visiting Rudbar tourist villages was the existence of natural attractions in the region, such as waterfalls, lakes and rivers, going to Darfak mountain, visiting beautiful forests and mild climate. Two individuals also mentioned build-up attractions (local and traditional food and eco-resorts). The type of vehicle they all used was a private vehicle. Eighty-nine percent of respondents stated that tourists have visited these villages more than 3 times. About 40% of them asserted that travelers use eco-resorts. And 84% expressed their interest in revisiting these rural tourism destinations.

Table 3. Summary of descriptive research statistics

Row	Variable	Level	Frequency	Percent	Mean	Minimum	Maximum
1	Gender	Male	11	61	.	.	.
		Female	7	39			
2	Age	Young (less than 30)	6	33	37	23	55
		Middle-aged (30-50)	10	56			
		Elderly (more than 50)	2	11			
3	Level of education	Bleow diploma	5	28	.	.	.
		Diploma	4	23			
		Bachelor degree	5	28			
		Master degree	3	16			
		Doctoral	1	5			
4	Purpose of the visit	Natural attractions of the area	16	89	.	.	.
		Built-up attractions of the area	2	11			
5	Type of vehicle	Private vehicle	18	100	.	.	.
		Public transportation	0	0			
6	Travel history	Once	2	11	.	.	.
		More than three times	16	89			
7	Residency status	Daily tourist with no overnight stay	0	0	.	.	.
		Second home	1	5			
		Relatives or friends' house	4	23			
		Eco-resorts	7	39			
		Rental Garden House (Villa)	6	33			
		Guest house	0	0			
8	Revisiting intention	Positive	15	84	.	.	.
		Negative	3	16			

4.1. Process of doing grounded theory (Understanding the meaning of rural tourism development in Guilan)

Grounded theory is derived from data that have been systematically collected and analyzed during the research process. In this method, generalization is not

the purpose. Instead, the goal is to understand the phenomenon. The main difference between grounded theory and other methods of qualitative approaches is the emphasis of this strategy on the development of theory (Papzan et al., 2010, cited in Giddens, 1997).

In this method, after collecting interview and contextual data through interviews with informants and incoming tourists, in an open coding, the data was reviewed line by line, and after identifying its processes, sentences related to the research topic were extracted and a code for each sentence was given. The result of this stage was 45 key concepts in the field of rural tourism development and tourism product supply of the studied community. Then, according to the key given concepts and the relationships between them, a primary classification was made and a code was given to each of the concepts proposed by key informants and tourists. The related items were placed in a cluster. Then, a code from A to I was assigned to each one of them (table 4). At the end of this stage, it seemed that these concepts have covered all the factors and components of rural tourism development in different dimensions and there is no need to re-refer to the studied samples. Therefore, the internal validity of the data was confirmed.

Table 4. Conceptualization of research data (open coding)

Row	concepts	Code
1	Village population	F1
2	Village literacy rate	F2
3	The youth rate of the village population	F3
4	Participation of residents in decisions	B1
5	Investment of local residents in the tourism sector	B2
6	Awareness of tourism industry	B3
7	Involvement of residents in tourism entrepreneurship	B4
8	Acceptance of tourist's presence	C1
9	Interest in interacting with tourists	C2
10	Believe in the importance and role of tourism in the economy and development of the village	A1
11	Expressing satisfaction with the arrival of tourists	A2
12	Support the creation of new tourism facilities	A3
13	Programs to monitor the quality of the visitor experience	G1
14	Training programs support	G2
15	Establishment and application of quality standards of tourism infrastructure	G3
16	Amenities and services (water, electricity and gas)	G4
17	Financial and banking services	G5
18	Security and law enforcement services	G6
19	Health Services	G7
20	Retail services	G8
21	Communication services (telecommunications, post, Internet)	G9
22	Gas station and CNG	G10
23	Marketing communications of the destination	E1
24	Management of the destination product development	E2
25	Branding and brand management (destination positioning)	E3
26	Develop a strong environmental image of the destination	E4
27	Installation of boards in a suitable place (roads toward the village)	E5
28	Holding tours to visit the natural and pristine attractions of the region	E6
29	Advertisements to introduce the region (media, distribution of brochures and tourist attraction map guide, etc.)	E7
30	Climate of destination villages	H1
31	Accommodation opportunities	H2
32	Catering opportunities	H3
33	The cultural, historical and ancient significance of the destination	H4
34	Mixed activities	H5
35	Destination relations	H6

Row	concepts	Code
36	Special events (such as various festivals, the strawberry fair, etc.)	H7
37	Job creation for the available labor of the region (15-64 years)	D1
38	The effect of tourism on job security in the region	D2
39	Effect on creating side jobs in the village (residences, restaurants, etc.)	D3
40	Distance and proximity to other tourist areas (average distance to other destinations)	I1
41	Distance and proximity to centers of population such as Rasht and Rudbar	I2
42	Distance to formal accommodation facilities	I3
43	Being next to the attraction	I4
44	Being on the way to the attraction	I5
45	Being along the main road	I6

In axial coding, the formed categories are developed and each category will include subcategories and the relationship of each of them will be determined. The requirement of the axial coding stage is constant comparison of data (Papzan et al., 2010). By constantly comparing the coded data with each other, the subcategories were organized into clusters appropriate to the categories (table 5). Finally, nine comprehensive categories and constraints to the concepts of rural tourism development of the targeted community (Rahmatabad and Blukat of Rudbar County of Guilan Province) were formed and each was named according to the conceptual vigor, which are in order of importance as follows: 1. Products of the destination (H), 2. Space opportunities of the destination (I), 3. Infrastructure of the destination (G), 4. Cultural support and beliefs of the destination(A), 5. Responsible participation of the destination (B), 6. Cultural acceptance of the destination (C), 7. Marketing for the destination (E), 8. Human capital of the destination (F), 9. Employment in destination (D). In Table 5, the primary codes and segments that were created in the open coding step were merged with their similar ones to determine the relationship between the subcategories and a category was formed with new concepts.

Table 5. Extensive categories and subcategories derived from concepts (axial coding)
(Source: Research finding, 2020)

Row	Extensive category	Subcategory
1	Products of the destination	Climate of destination villages
		Accommodation diversity
		Catering diversity
		The cultural, historical and ancient significance of the destination
		Variety of tourism activities in the region
		Relationships of rural tourism destinations in the region
		Special events (such as various festivals, the strawberry fair, etc.)
2	Space opportunities of the destination	Distance and proximity to other tourist areas (average distance to other destinations)
		Distance and proximity to centers of population such as Rasht and Rudbar
		Distance to formal accommodation facilities
		Being next to the attraction
		Being on the way to the attraction
		Being along the main road
3	Infrastructure of the destination	Programs to monitor the quality of the visitor experience
		Training programs support
		Establishment and application of quality standards of tourism infrastructure
		Amenities and services (water, electricity and gas)
		Financial and banking services
		Security and law enforcement services

Row	Extensive category	Subcategory
		Health Services
		Retail services
		Communication services (telecommunications, post, Internet)
		Gas station and CNG
4	Cultural support and beliefs of the destination	Believe in the importance and role of tourism in the economy and development of the village
		Expressing satisfaction with the arrival of tourists
		Support the creation of new tourism facilities
5	Responsible participation of the destination	Participation of residents in decisions
		Investment of local residents in the tourism sector
		Awareness of tourism industry
		Involvement of residents in tourism entrepreneurship
6	Cultural acceptance of the destination	Acceptance of tourist's presence
		Interest in interacting with tourists
7	Marketing for the destination	Marketing communications of the destination
		Management of the destination product development
		Branding and brand management
		Develop a strong environmental image of the destination
		Installation of boards in a suitable place (roads toward the village)
		Holding tours to visit the natural and pristine attractions of the region
		Advertisements to introduce the region (media, distribution of brochures and tourist attraction map guide, etc.)
8	Human capital of the destination	Village population
		Village literacy rate
		The youth rate of the village population
9	Employment in destination	Job creation for the available labor of the region (15-64 years)
		The effect of tourism on job security in the region
		Effect on creating side jobs in the village (residences, restaurants, etc.)

In the final stage, or selective coding, the initial framework of the study was formed by reviewing the narrative, combining the categories and understanding the relationship between them around an axial concept, in a back and forth with the study population (figure 2). In other words, at this stage, the researcher turns his attention to determining the core category (the variable that is most often repeated in the data and is able to relate other variables to each other) while focusing on the process that lay in the data. Among these, "rural tourism product supply" was a core category (main variable) that directly and indirectly affected other variables and was distinctly stated in all data. After determining the pivotal or core category, other categories around the core category were designed in a paradigmatic model. This model, which is in fact the data-based ground theory, has three dimensions of conditions, interactions and consequences (figure 3).

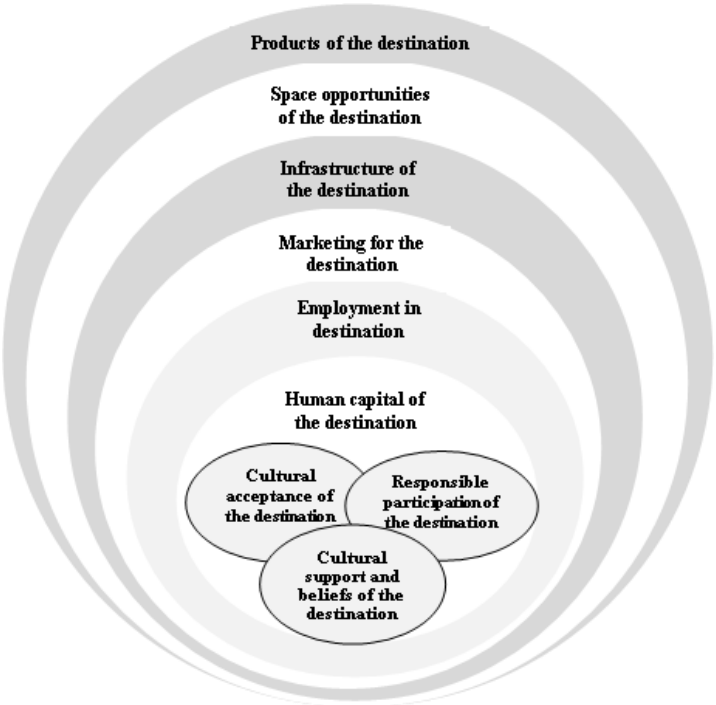

Figure 2. The initial framework for the development of tourist destination villages in Rahmatabad and Blukat, Rudbar, Guilan

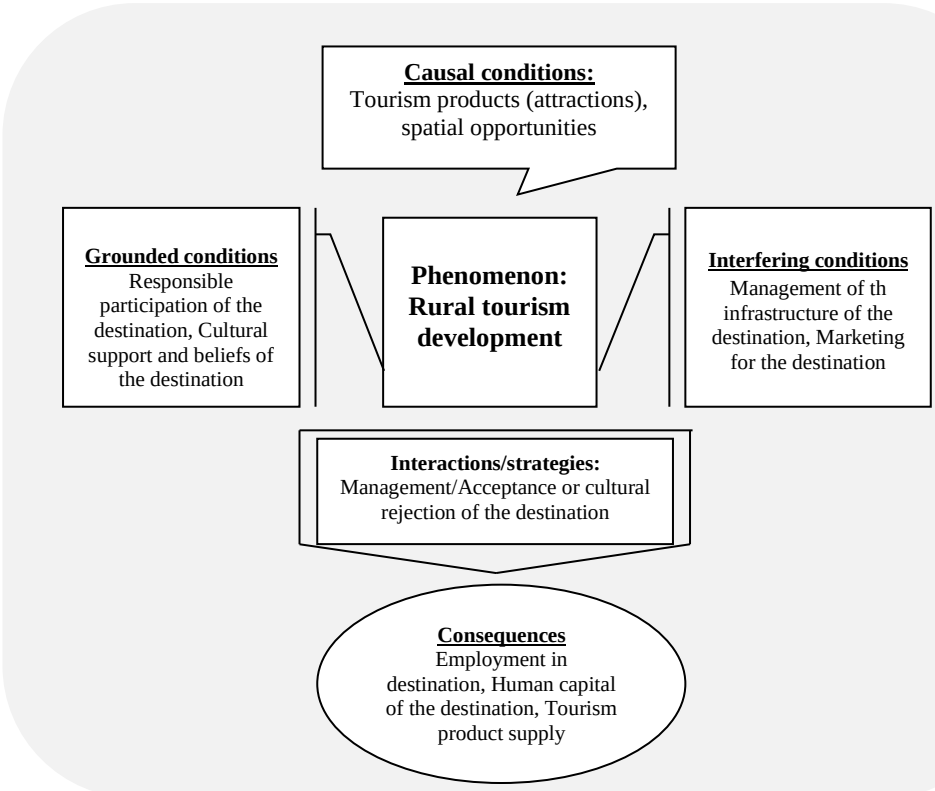

Figure 3 - Paradigmatic model/rural tourism development model of Rahmatabad and Blukat district, Rudbar, Guilan

5. Discussion and Conclusion

The findings of the semantic understanding of rural tourism development clearly show that the development of tourism in a geographical context (village) as an important asset can lead to growth and economic-spatial reconstruction in rural, regional and national areas. The presented arguments have been reconstructed based on the intended semantic process of key rural informants and tourists in the studied rural areas. This process showed the conditions/contexts, interactions/strategies of social acceptance of rural tourism, and also the role of the arrival of spatial elements of rural tourism from the tourists and key informants viewpoint in that area.

The consequences of tourism development in these areas are multiple. In other words, semantic understanding regarding to the grounded theory of tourism development in rural areas of Rahmatabad and Blukat of Rudbar County mainly included: Products (attractions) of the destination, space opportunities of the destination, infrastructure of the destination, cultural support and beliefs of the destination, responsible participation of the destination, cultural acceptance of the destination, marketing for the destination, human capital of the destination, employment in destination.

According to the core category, which is provided from other major categories, key informants and rural tourists in Rahmatabad and Blukat District of Rudbar County realize the development of rural tourism as a social acceptance of tourism. In other words, they believe that spatial changes, which have occurred in the village space system have taken place, are in line with developing and increasing their socio-economic standard of living (e.g. the villages of Estakhrgah and Halimeh Jan have become entrepreneurship villages and almost without unemployment, in the villages of Sidasht and Estalakh Jan the phenomenon of youth reverse migration (from city to village)). The above central item clearly indicates that the villagers of Rahmatabad and Blukat District of Rudbar County of Guilan reckon the created spatial changes as a positive and functional transformation. Recognizing the consequences of spatial change as the acceptance and social participation of village residents, is affected by a number of conditions and contexts. Therefore, special interactions and processes have been achieved. In addition, the mentioned recognition itself has special results that will be considered in the following.

As shown in the paradigmatic model (figure 3), there are a number of tourism conditions and contexts in the rural areas of Rahmatabad and Blukat in Rudbar County which have led to the creation of various tourism spaces specific to that region. According to key informants of the village and tourists in the area, these conditions are in three main groups, which are: Causal conditions, grounded conditions, interfering conditions

In this investigation causal conditions are "tourism product supply policies". They are significant for the competitiveness of tourist attractions (products), due to either the nature of tourism products and services or the delivery and presentation process. The climate of the region, superstructures, accommodation and catering opportunities for tourists, existing cultural and historical attractions, a combination of cultural and indigenous activities, relations of the destination, etc. can have a significant impact on policies to develop rural tourist attractions in Rahmatabad and Blukat District in Rudbar County. That is to say, the development of tourism products creates cultural dialogs and promotes strategic ties, as well as regional security, sustainable development and the introduction of regional identity. On the other hand, having special local and spatial opportunities in these villages, such as being next to or on the way of attraction (Darfak Mountain, Sefidrood River, being in the forests, waterfalls, historical and archaeological sites and shrines), their short distance to the center of the province (Rasht) and the county (Rudbar) are also the reasons of the phenomenon of rural tourism development in this region. These results are consistent with the findings of Salehi & Shariat Panahi (2019).

The intervening conditions are in the category of "tourism product supply policies" as well, which can play a significant role in the competitiveness of rural tourism destinations in Rahmatabad and Blukat District in Rudbar County through branding and achieving the marketing goals. Destinations as a tourism product are the result of marketing relations andbranding and positioning. The development of the destinations can frame a strong symbolic-social image of that place in the tourists' minds (Estakhrgah with famous pools, scenic byways and a beautiful waterfall), Sidasht (Strawberry and summer highland pasture festival brand), Astalakh Jan (pools and ponds), Anarkul (one of the longest villages in Iran, next to Siahrood River), Nesfi (ancient Marlik hill and Peel Ghaleh), Divrash (Springs, caves and summer houses), Halimeh Jan (Aroos Lake), and Ber

Agur (religious tourism brand of Imamzadeh Hashem, Saleh and Ibrahim and Shahr-e Bijar Lake). The development of tourism product management, that is, local businesses in consistence with the geography of tourism is of particular importance in the competitiveness of tourist destinations. The marketing activities have become competitive in the world today and to stay competitive they must be innovative and creative. Innovative activities will differentiate product of the destination from others and will attract well-informed customers to the place. Moreover, the major category of "tourism policies for capital access" can be researched through programs to monitor the quality of the experience, support educational schemes, and establish and apply quality standards for tourism infrastructure (accommodation, public, security, transportation, communication, etc.), which promote competitiveness and development of the places in Rahmatabad and Blukat District in Rudbar County.

In addition, the category of "the policy of support and cultural and social participation in tourism" is a component that is classified in terms of context, which is implemented through the support and cultural beliefs of residents, that is, believe in the importance and role of tourism in the economy and development of the destination, the satisfaction of local people with the arrival of tourists, and the cultural and social support of the residents for the creation of new tourism facilities are the factors that have a significant impact on the process of competitiveness and development of tourist destinations. To achieve this, it is suggested that special attention be paid to the development and expansion of local community civil associations. The category of responsible participation of destination residents in the major category of "social participation policy" is a component that emphasizes the participation of local people. That is, the residents' participation in decision-making and selection of priorities, their investment in tourism, awareness of local people from the economic benefits and capabilities of the tourism industry, having an entrepreneurial spirit, and creating a sense of competition among indigenous peoples in creating jobs, and thus socio-economic development. They can have a profound impact on the development and competitiveness of the destinations in Rahmatabad and Blukat District in Rudbar County. Tourism destinations in today's world must be innovative and creative and provide compatible products through the participation of the local community. These results are in line with the findings of Rostami Ghobadi and Ehsanifar (2018), Bayat & Badri (2017) and Papzan et al. (2009).

The mentioned conditions in general and along with each other have caused the initiation of the phenomenon of rural tourism development, and consequently, its spatial elements to the rural areas of Rahmatabad and Blukat District in Rudbar County. With the arrival of spatial elements of tourism in Rudbar, the villagers of the tourist destination interacted with it in two different ways, or say, they used two kinds of strategies against it. These two modes of interaction or strategy range from positive and practical acceptance to negative evaluation and resistance. This means that the major category of "tourism social acceptance policy" is a component that occurs through the acceptance of local people at the tourist arrival at the destination. The hospitality and acceptance of the tourist's presence and being interested in the interaction with tourists can have reults such as more employment, diversification in production, improvement of the quality of life and public culture, foreign exchange earnings and it can be a tool for advertising the destination which benefits competitiveness of tourist destinations in this district. These results are in line with some of the findings of Rostami Ghobadi and Ehsanifar (2015) and Einali et al. (2015).

The phenomenon of rural tourism development in Rahmatabad and Blukat District in Rudbar County has had spatial results and consequences, which can be categorized (as shown in the model (Figure 2)) into several categories, which are employment in destination, human capital of the destination and tourism product supply. This means that with the development of tourism, job opportunities have been created for the active labour of the region (15-64 years) (villages without unemployment of Estakhrgah and Halimeh Jan). In other words, tourism has affected the job security of the region, side jobs for the village (such as residences, traditional restaurants), decrease in youth migration from the village, and accordingly the increase of population, literacy rate. Reverse migration can also be seen in Sidasht village. These results are in line with the findings of Gholizadeh et al. (2019) and a part of the findings of Salimi Sobhan and Hojat Shamami (2019), Eynali et al. (2018), Rezvani et al. (2012) and Oroji et al. (2016).

Findings showed that the vital commodities of rural tourism in Rudbar are the supply of a mixture of tourism approaches such as ecotourism, agrotourism

and participatory approaches such as the view of scenic byways. In the elevated villages near Darfak peak, the commodities are long hiking or cycling alongside Sefidrood River as well as heritage areas. Moreover, in the development of rural tourism in the study area, the categories of destination tourism products, destination space opportunities, destination infrastructure, cultural support and beliefs, responsible participation, destination cultural acceptance, destination marketing, destination human capital, destination employment were important. The most important categories (Core category) was "tourism product development policy". Lack of proper access to infrastructure such as mobile coverage accessibility, Internet and accommodation opportunities, frequent cut-offs of water in some villages for some hours, have limited the development of tourism in some areas.

In order to achieve the development of rural tourism, it is suggested that special attention be paid to the development policy of Guilan tourism product supply. In order to implement the "the policy of support and cultural and social participation in tourism" and "tourism social acceptance policy", it is suggested that the development and expansion of local community civil associations be taken into consideration. Tourism destinations in today's world must be innovative and creative and provide compatible products through the participation of the local community.

In order to implement "tourism product supply policies", branding and positioning of tourism destinations should be considered to make the destination product distinctive and unique and to attract well-informed and interested customers. In this study, the important brands of the villages were: Sidasht village, brand of agrotroism and strawberry festival; Astalakh Jan, Estakhrgah and Halima Jan brands of tourism enrepreneurship and ecotourism landscapes (lakes, ponds and forest); Ber Agur brand of religious tourism (shrines) and ecotourism of landscapes; Anarkul, Divrash (beautiful natural scenery of rivers, caves, springs and summer houses); Nesfi (historical and ancient tourism and nature-oriented).

In order to achieve the development of rural tourism, it is suggested that special attention be paid to the development policy of Guilan tourism product supply. Special attention should be paid to the development of infrastructure and services and the development of social capital in the region. Since most of the incoming tourists to Guilan are nature-based tourists, increasing the village's service such as improving mobile and Internet access, improving the village's water and electricity quality, travel agency offices and active tour operators in the villages, automobile repair shops, local food restaurants and eco-resorts are vital.

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Original Article

تئوری بنیانی توسعه گردشگری روستایی گیلان
(مطالعه موردی: بخش رحمت‌آباد و بلوکات شهرستان رودبار)

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چکیده مبسوط

۱. مقدمه

متأثر از دیدگاه‌های غالب پسامدرن و به علت اهمیت بازتاب سنت در مدرنیته، یکی از عرصه‌های مهم پیش‌برنده توسعه و رشد تقاضای گردشگری، توجه به نواحی روستایی است. در چشم‌انداز اقتصادهای توسعه‌یافته، گردشگری روستایی را می‌توان تجربه‌ای مبتنی بر کشور تلقی کرد که طیف گسترده‌ای از جاذبه‌ها و فعالیت‌هایی را شامل می‌شود که می‌تواند فرصت‌های ارائه خدمات به جوامع محلی را افزایش دهد، این اهمیت تا آنجایی است که فضاهای جغرافیایی یا مناظر، کالاهای اساسی در گردشگری هستند و نگهداری از آنها تبدیل به جزئی جدایی‌ناپذیر در اقتصاد روستایی شده است، بدین‌سان، این مقاله به مطالعه زمینه‌ای درک معنایی توسعه گردشگری روستایی شهرستان رودبار استان گیلان پرداخت.

۲. مبانی نظری تحقیق

جاذبه‌های گردشگری عمده‌ترین دلیل مراجعه گردشگران به مقاصد روستایی و به عنوان کلیدی‌ترین عنصر در مکان‌یابی فضاهای گردشگری به حساب می‌آیند. گردشگری توسط لیپر (۱۹۹۰) به عنوان حرکت مردم از یک منطقه مولّد توریست به یک منطقه مقصد گردشگری، جایی‌که در آنجا برای مدت زمانی می‌مانند تعریف شده است. همچنین کیلون (۲۰۰۱) گردشگری روستایی را یک فعالیت چندوجهی که در محیطی خارج از مناطق شهری انجام می‌شود تعریف می‌کند. این فعالیت بخشی از صنعتی است که توسط کسب و کارهای گردشگری در مقیاس کوچک صورت گرفته و در مناطقی که اراضی به وسیله مشاغل کشاورزی مورد استفاده قرار می‌گیرند قابل اجرا می‌باشد. این فعالیت باید به عنوان پیشنهادی در غالب طیف مختلفی از تجارب که در آن تأکید بر تجربه استفاده گردشگران از محصولات و فعالیت‌های مناطق روستایی است صورت گیرد. گردشگری روستایی در برگیرنده موارد مختلفی از قبیل گذران تعطیلات در مزارع، گردشگری کشاورزی، اکوتوریسم، پیاده‌روی، دوچرخه‌سواری، سوارکاری، کوهنوردی و جهانگردی ماجراجویی، گردشگری ورزشی، پزشکی، شکار، ماهیگیری، گردشگری غذایی، مذهبی و تقریباً همه اشکال ممکن دیگر از گردشگری همراه با رویداد، جشنواره‌ها و حتی بازدید دوستان و بستگان را در بر می‌گیرد. در ایجاد طیف گسترده‌ای از این قبیل فعالیت‌ها، در نظر گرفتن ماهیت و شرایط عرضه در مناطق روستایی از اهمیت ویژه‌ای برخوردار است.

۳. روش تحقیق

این پژوهش به لحاظ هدف توسعه‌ای ـ کاربردی، از نظر پارادایم کیفی و از حیث روش از نظریه بنیانی مبتنی بر رویکرد استقرایی بهره برده است. جامعه آماری شامل دو دسته مطلعان کلیدی روستایی و گردشگران شهرستان رودبار بودند که به روش نمونه‌گیری هدفمند، ۱۸ نفر با روش گلوله برفی انتخاب شدند و با استفاده از مصاحبه‌های عمیق و نیمه‌ساختارمند و در نهایت رسیدن به اشباع نظری داده‌ها جمع‌آوری گردید. برای تحلیل روایت‌ها از روش کدگذاری سه مرحله‌ای باز، محوری و انتخابی استفاده گردید.

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۴. یافته‌های تحقیق

یافته‌ها نشان داد کالاهای اساسی گردشگری روستایی در شهرستان رودبار مبتنی بر عرضه آمیخته‌ای از محصول گردشگری همچون اکوتوریسم، آگروتریسم و رویکردهای مبتنی بر مشارکت مانند منظره جاده‌های کم‌تردد و دور افتاده و پر پیچ جنگلی، و روستاهای با ارتفاع بالا در نزدیکی قله درفک، مسیرهای پیاده‌روی یا دوچرخه‌سواری طولانی در مسیر سفیدرود و مناطق میراثی هستند. همچنین، در توسعه گردشگری روستایی محدوده مورد مطالعه به ترتیب مقوله‌های محصولات گردشگری مقصد، فرصت‌های فضایی مقصد، زیرساخت‌های مقصد، حمایت و باورهای فرهنگی، مشارکت مسئولانه، پذیرش فرهنگی مقصد، بازاریابی مقصد، سرمایه‌های انسانی مقصد، اشتغال مقصد با اهمیت بوده‌اند و مهمترین مقوله (مقوله هسته) "سیاست توسعه عرضه محصول گردشگری" شناخته شد.

۵. بحث و نتیجه‌گیری

یافته‌ها به وضوح نشان می‌دهد، بسط و گسترش گردشگری در یک بستر جغرافیایی (روستا) بسان یک سرمایه مهم می‌تواند منجر به رشد و بازساخت اقتصادی ـ فضایی در نواحی روستایی، منطقه‌ای و ملی گردد. مباحث ارائه شده، بر اساس فرآیند معنایی مورد نظر مطلعین کلیدی روستایی و گردشگران در نواحی روستایی مورد مطالعه بازسازی شده است. این فرآیند نشان داد که پذیرش اجتماعی گردشگری روستایی تحت چه شرایط/ بسترها، تعاملات/ استراتژی‌ها عمل کرده و همچنین نقش ورود عناصر فضایی توسعه گردشگری روستایی را از نقطه نظر گردشگران و مطلعین کلیدی پژوهش آن منطقه به تصویر کشیده است.

پدیده توسعه گردشگری روستایی شهرستان بخش رحمت‌آباد و بلوکات شهرستان رودبار نتایج و پیامدهای فضایی را بدنبال داشته است که می‌توان پیامدهای مذکور را در چند مقوله دسته‌بندی کرد؛ ماهیت این مقوله‌ها بدین معنی است که با توسعه گردشگری و ورود و خروج گردشگران فرصت‌های شغلی برای نیروهای فعال اقتصادی منطقه (۶۴ـ۱۵ سال) بوجود آمده است (روستاهای بدون بیکار استخرگاه و حلیمه جان)، به عبارتی گردشگری بر امنیت شغلی منطقه اثر گذار بوده است، توسعه مشاغل جانبی روستا (همچون اقامتگاه‌ها، رستوران‌های سنتی، کاهش مهاجرت جوانان از روستا به تبعه آن افزایش جمعیت روستا، نرخ باسوادی و جوانی جمعیت در این اکثر محدوده مورد مطالعه دیده می‌شود (روستای سی‌دشت (مهاجرت معکوس)).

برای رسیدن به توسعه گردشگری روستایی پیشنهاد می‌گردد:

- ✓ در جهت پیاده‌سازی"سیاست حمایت فرهنگی و اجتماعی گردشگری" و "سیاست پذیرش اجتماعی گردشگری" پیشنهاد می‌گردد توسعه و گسترش انجمن‌های مدنی جامعه محلی مورد توجه ویژه قرار گیرد. از آنجایی‌که اغلب گردشگران ورودی به گیلان از نوع گردشگران مبتنی بر طبیعت‌گردی هستند، افزایش بسترهای خدماتی روستا همچون بهبود آنتن‌دهی تلفن همراه و اینترنت، بهبود وضعیت آب و برق روستاها، دفاتر آژانس‌های مسافرتی و تورگردانی فعال در روستا، تعمیرگاه خودرو، دفاتر بیمه، رستوران‌های غذاهای محلی و اقامتگاه‌های بوم‌گردی ضروری می‌نماید.
- ✓ به منظور پیاده‌سازی "سیاست‌های توسعه عرضه محصولات گردشگری" برندگذاری و جایگاه‌یابی مقاصد گردشگری مورد توجه قرار گیرد؛ تا محصول مقصد را متمایز و منحصر به فرد ساخته و مشتریان آگاه و علاقمند را به سوی خود جلب نمایند.

کلیدواژه‌ها: تئوری بنیانی، گردشگری روستایی، گیلان، شهرستان رودبار.

تشکر و قدرانی

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Original Article

Environmental Responsibility in Rural Areas (Case Study: Rural Areas of Mazandaran Province)

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Abstract

Purpose- Social responsibility for environmental protection at all levels and strata of society is an issue that is explicitly emphasized in paragraph 14 of the General Environmental Policy of the Islamic Republic of Iran and the villagers as the main users of environmental resources are expected to take environmental responsibility without exception. The purpose of this study was to investigate and identify level of responsibility of environmental behaviors of villagers and determine social factors affecting it.

Design/methodology/approach- In this research, the framework of social psychology was used and the research method was survey and cross-sectional. The unit of analysis is the rural individuals. The statistical population of the study is all residents of rural areas of Mazandaran province in 1398/2019. The sampling method of multi-stage cluster sampling was used. The number of study villages surveyed was 30 villages and the sample size was 536 people. The data required for the research were collected through a researcher-made questionnaire.

Finding- The results showed that the level of responsible environmental behavior of villagers is at a moderate level. In addition, the results of multivariate analyzes indicate that there is a significant relationship between social psychological factors (religious beliefs, environmental values and environmental knowledge) and responsible behaviors towards the environment. In the final evaluation, it can be said that the modified model of social psychological factors seems a suitable model for studying factors affecting environmental behaviors in rural communities and can be useful as a model for conducting similar research in other rural areas of the country.

Keywords- Social psychology factors, Environmentally responsible behavior, Villagers, Mazandaran Province.

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1. Introduction

The world today faces a plethora of environmental problems such as global warming, air pollution and water scarcity. As expected, the health and security of the planet Earth is at risk. The environmental situation in Iran, like many other countries in the world, is at critical situation. According to the Environmental Performance Index (EPI), Iran is ranked 83rd among 173 countries in the world, which indicates the unfavorable status of measures taken to maintain and improve the environment. Hence, the way man interacts with the environment in today's world has gained new dimensions, extending from mere technical relationships to social spheres (Dunlap, 2016). Erratic and even destructive behaviors and attitudes of human beings towards the environment have aggravated environmental situation in Iran. These adverse environmental behaviors can be observed in various domains such as waste production, water pollution, excessive energy consumption, deforestation, etc. Developed countries have taken actions to address environmental problems caused by development plans, seeking to mitigate consequences of technical problems in this field by cultivating environmentally responsible behaviors in the community. Studies show that people are not adequately aware of the current status of responsible environmental behaviors and associated factors. With regard to macro-policies, the issue of environmentally responsible behavior is so important that it was addressed at The First Regional Conference on Environmental Rights in 1972, which came to be known as Stockholm Conference, and also at Rio International Declaration in 1992. Moreover, in the general environmental policies of the Islamic Republic of Iran, this has been explicitly stipulated in paragraph 14 of the general environmental policy of the Islamic Republic of Iran. Despite the strategic emphasis and macro-policies of the country on responsible behaviors towards the environment, in reality, we are witnessing a proliferation of neglectful behavior by individuals regarding the country's environment. In fact, the issue of the environment has gained prominence as a national, public and social issue, and we struggle with environmental problems across the country. Hence, the environmental protection and responsible behavior constitute a main concern in different parts of the country, such as the northern provinces, especially Mazandaran. Rural areas also account for a large part of the social and demographic system of the country where a great share of productive labor forces reside. In the villages, there are a wide array of valuable factors and resources including humans and natural and economic resources as strategic reserves of the country, which play a pivotal role in the development of society. Given that village is symbol of the connection between nature and human culture and the interaction of these two is manifested in rural nature, environmental protection has been recognized not only as an integral part of sustainable rural development but also as a fundamental value demanded by today's generation. Therefore, fostering environmentally responsible behaviors in villagers and underlining the importance of the environment in maintaining the natural balance and the future of human life are key issues in the sustainable development. In this regard, various theories have been proposed in environmental sociology to explain responsible environmental behavior. The New Ecological Paradigm (Dunlap, 2016), the theory of planned behavior (Azjen & Fishbein, 1980), the model of environmentally responsible behavior (Hines et Al., 1987), the norm activation model (Schwartz, 1977), the value-belief-norm theory (Stern et Al., 1999) and the protection motivation theory (Rogers, 1975) are among the theories that seek to explain the underlying conditions that bolster responsible environment behavior in individuals. In this research, we have adopted theories that can be helpful in providing educational and policy solutions to environmental protection. In light of this, it can be acknowledged that a fundamental way to alleviate environmental damage and destruction is to modify the attitude of the agents responsible for such harms. Among the factors associated with the environmental behavior, psychological concepts such as knowledge, attitudes and perceptions of individuals have drawn increasing attention of experts (Onel & Mukherjee, 2015). One of the important variables that predict people's responsible behavior is their attitude towards the environment. It is generally believed that in order to trigger behavioral changes in the environment, one must first change people's attitudes toward the environment. In other words, people who hold a positive environmental attitude

are more likely to exhibit environmentally friendly behaviors (Halpenny, 2010). One way modifying the attitude and behavior of people in the community is inclusive and effective education. In addition to raising awareness, education can modify attitudes. Therefore, as noted above, by surveying the public attitudes in the society, it is possible to foresee a society's behavior to some extent, and when there is a radical change in people's attitudes, new behaviors and developments consistent with those changes can be expected in the society. Finally, the main questions presented in this research are: What is the attitude of people towards the environment? and What are the responsible environmental behaviors in the eye of the villagers? This calls for recognizing the status quo of environmental behaviors among people to develop appropriate policies and strategies for responsible environmental behaviors among people by scientifically and socially identifying the determinants of this type of behavior.

2. Research Theoretical Literature

Pro-environmental behavior, also known as environmentally behavior, and environmentally responsible behavior, is a behavior that seeks to minimize the negative impact of one's actions on the natural world and even contribute to the environment (Steg & Vlek, 2009). In other words, this type of behavior represents an attempt by individuals to mitigate and limit destructive actions that can harm the built and natural environment (Albayrak et al., 2011). In order to inspire people to engage in environmentally friendly behaviors such as reducing the use of resource and energy, utilizing non-toxic substances, decreasing waste production and educating people about this issue, we must first identify the factors that have a bearing on this type of behavior. This has received growing attention of scholars in various scientific disciplines such as economics, sociology, ecology and psychology. Over the past four decades, a host of studies have sought to answer a fundamental question: Why do people engage in pro-environmental behaviors, and what are the main barriers to adopting pro-environmental behaviors? (Kollmuss & Agyeman, 2002). To answer this question, an array of theories such as value-belief-norm theory (VBN) (Stern et al., 1999) and norm activation theory (NAT) (Schwartz, 1973 & 1977) have been proposed. However, another sociopsychological theory adopted in most studies to explain pro-environmental behavior is the theory of reasoned action (TRA) (Azjen & Fishbein, 1980) or its modified version known as the theory of planned behavior (TPB) (Ajzen, 1991). In general, these models presume that one's knowledge of a subject is a precondition to cultivating an attitude (Flamm, 2009; Kaiser et al., 1999). Moreover, behavior is a function of intention, which in turn is a variable of attitudes and mental norms. In the original model, researchers primarily seek to predict behavioral intentions rather than behavior itself. Some researchers (e.g., Davies et al., 2002) have suggested that the relationship between intention and behavior may not be as strong as claimed in the model. Thus, the reasonable approach is to integrate real self-reported behavior into the model because at the end of the day what matters is the actual behavior not the intention to do so (Rokka & Uusitalo, 2008). Hines et al., (1987) did a meta-analyzes of 128 studies on responsible environmental behavior, concluding that the variables of environmental knowledge, knowledge of action strategies, locus of control, attitude, relationship commitment, and individual perception of responsibility are linked to environmentally responsible behaviors. In the ecological model, the environmentally friendly behavior was proposed by Fietkau and Kessel. Kollmuss & Agyeman (2002) argue that in this model, sociological factors are used together with psychological factors to explain the responsible environment behavior or its absence for that matter. This model consists of five variables that directly and indirectly affect the responsible behavior of the environment. These variables, though independent of each other, can affect one another and undergo changes. These variables include attitudes and values, facilities to engage in environmentally responsible behavior, behavioral incentives, and perceived outcomes of responsible environmental behavior and knowledge (Kollmuss & Agyeman, 2002). The protection motivation theory is a theoretical model that seeks to explain the factors influencing the decision-making processes of individuals who adopt/avoid certain behaviors to for protection against potential hazards. In this model, attitudinal change is not simply the result of an emotional state induced by fear, but rather the degree of protection motivation resulting from the cognitive assessment process.

Contrary to the general assumption that the use of protective measures is directly controlled by fear of a threat, protection motivation theory addresses a more complex model of reasoned and psychological decision-making in the adoption of such measures (Clubb, 2012). This theory has three main components: threat assessment, the cognitive mediation process, and attitude change. Threat assessment contains three types of information about potential threats: 1. the potential impacts of the threat, 2. the possibility of the threat affecting an individual, and 3. the effectiveness of a recommended response in protecting an individual against a potential threat. The cognitive mediation proposed by Rogers (1993) involves two assessment processes utilized by an individual to exploit information resources in order to determine whether or not to engage in a protective behavior: threat assessment and coping assessment. Gardner and Stern (2005) argue that protection motivation theory has a broader application, including natural and technological hazards and environmental threats. It can explain the reasons people fail to take environmental actions or how they encourage or facilitate environmental protection behaviors. On this subject, divergent theories have been proposed that try to explain various environmental behaviors. As Stern et al., (1999) points out, despite scientific advances and the development of scientific theories, and with escalated theoretical complexity of the models, their experimental applicability diminishes. Therefore, these highly complex and rational models, as theoretical models of responsible environmental behavior, provides a relatively clear picture of the factors that shape and limit the choice of responsible behavior for policymakers. They also point to some key areas that need to be further explored to promote environmentally friendly behavioral changes. Accordingly, behavioral models have gradually grown more complex and multilevel to address variables at diverse levels. One of the problems associated with these behavioral models is that the abstract nature of the models hampers their testability. In general, as the overview of theories affecting environmental behavior suggests, these theories began with an emphasis on individual and psychological factors and eventually shifted to social and institutional factors. In fact, newer models run the gamut from cognitive levels, attitudes, personal characteristics and abilities to social, contextual, structural and institutional dimensions. Thus, by drawing on theories and results of previous research and merging diverse factors at different levels, this study aims to develop a theoretical model to explain responsible environmental behavior at the community level.

Marzban et al. (2017) conducted a study to assess the level of awareness and environmental behaviors of people in Yazd province, Iran. They reported that the mean score of environmental awareness and attitude was at the medium level and the mean score of environmental behavior was weak. There was a significant difference between environmental awareness and behavior of men and women, so that women displayed a higher level of environmental awareness. Shaterian et al. (2019) modeled the role of knowledge, attitude and environmental values of tourists in environmentally friendly behaviors of Iranian and foreign tourists in Qom. The results of their study revealed that there was no significant relationship between the tourists' length of stay and their environmental behavior. Moreover, the variables of environmental knowledge, attitude and value affected the adoption of environmental behaviors of tourists. Naimi et al. (2015) analyzed environmental structures affecting the environmental protection behavior of villagers in Baghmalek County, Khuzestan Province. They found that among the six variables studied, three variables (ethics, value and attitude towards the environment) were at a medium level and other three variables (concern, intention and environmental behaviors) were at a high level. Moreover, the variables of ethics, value, attitude, concern and environmental behavioral intention explained approximately 76% of the variance in environmental protection behavior of villagers. Naderi (2015) employed the protection motivation theory to explore environmental pollution in Tehran. The results also indicated that the protective behaviors can influence the validity of the source. That is, people are more likely to believe in information and messages received from reputable channels and sources, and therefore engage in protective behaviors to safeguard the environment and reduce air pollution. Sojasi Gheidari & Arab Teymouri (2018) conducted a study to analyze the social responsibility of villagers towards environmental sustainability. The findings suggest the weak responsibility of rural households for environmental, moral and social components, the moderate responsibility for

the economic component and a high responsibility for legal dimension. Sojasi Gheidari & Fa'al Jalali (2018) conducted a study to explore environmental knowledge and awareness of the villagers in Zanglanlu district. According to them, the mean value of most indices except for three indices of knowledge of the benefits of clean energy, the dangers of pesticides and product packaging, was higher than average (based on a 5-point Likert scale). The analysis of the correlation between research variables (level of education and level of involvement in environmental education courses) also manifested a positive and significant relationship. In addition, the results of their analysis demonstrated a significant relationship between these two variables. Rosa & Collado (2019) studied experiences in nature and environmental behaviors and attitudes, concluding that there was a significant relationship between direct experiences of contact with nature and the attitudes of respondents. A positive and significant association was also reported between the experience in nature and the type of environmental behavior. This finding prompted researchers to foster the support and protection of the environment in individuals through the experience of nature and frequent environmental contacts - especially from childhood. Chen (2017) conducted a study on environmentally friendly behaviors in rural China driven by economic achievements and environmental considerations. The results suggested that major environmental behaviors are widely practiced in rural areas. However, these behaviors are largely influenced by economic gains rather than environmental considerations. Choudri et al. (2016) in a study on citizen's perception of corporate responsibility in rural areas examined this issue in Al-Wusta, Oman. The results of the survey illustrated that citizens are aware of the potential impact of projects implemented by various companies in those areas. Citizens also called for companies to be more concerned about managing and monitoring local resources such as biodiversity, fisheries, livestock and air quality and, in general, regional environmental challenges. Janmaimool & Denpaiboon (2016) evaluated the factors affecting the adoption of environmental behaviors by rural residents with an emphasis on ecological conservation and waste management behavior. Their integrated exploratory model indicated the association of ecological conservation behavior and waste management with variables such as PBT, value-belief-norm theory, environmental education and psychological characteristics. Possible predictors also cover a raft of variables such as social norm, environmental knowledge, sense of commitment and self-efficacy, life satisfaction, spatial stickiness, environmental perspective, and psychological characteristics. Piapong & Denpaiboon (2016) explored factors affecting the engagement of villagers in environmental protection and waste management based on the conceptual framework of environmental protection behavior. They looked into the factors that determine the behavior of villagers in relation to the environment in Thailand. The results of regression analysis revealed that environmentally responsible behaviors can be predicted by a diversity of factors. These predictors were self-efficacy, environmental identity, and perceived environmental values.

According to the theoretical foundations and research background, the conceptual model of the research can be plotted as follows.

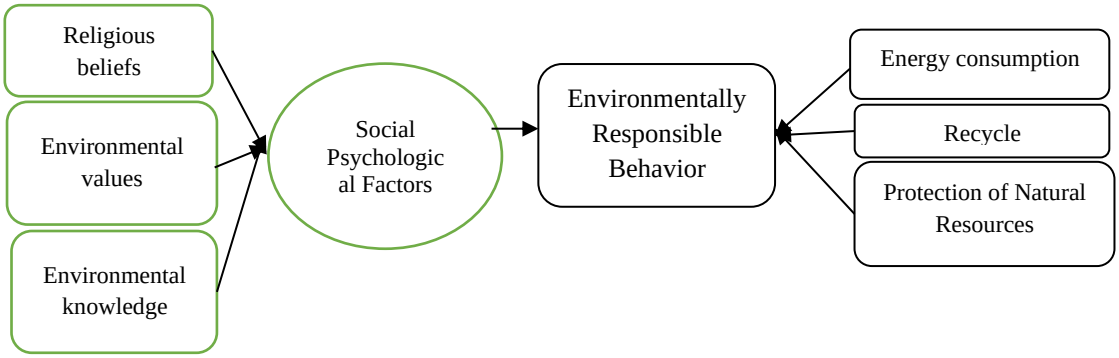

Figure 1. Conceptual Model of Research

3. Research Methodology

The present study is a descriptive-correlational research. Data collection was performed using a survey method through a researcher-made questionnaire. The statistical population of the present study consisted of the residents of rural areas in Mazandaran province in 2019. Using multi-stage cluster sampling method, the province was divided into three clusters: eastern, central and western. Three cities were selected from each cluster, two districts from each city and one sample from each district. The multi-stage cluster sampling method was performed as follows. In the first stage, the cities of Mazandaran province were classified into three groups based on socio-cultural and spatial characteristics, which served as a cluster: A. Eastern Cluster (including the cities of Sari, Neka, Behshahr, Galugah and Miandorod); B. Central cluster (including the cities of Mahmudabad, Fereydunkenar, Amol, Babol, Simorgh, Savadkuh Shomali, Ghaemshahr, Savadkuh, Babolsar and Joybar); C. Western cluster (including the cities of Tonekabon, Ramsar, Noor, Nowshahr, Abbasabad, Chalus and Kelardasht). In the second stage, due to the similarity of the cluster samples, three cities were randomly selected from each cluster. The cities of Noor and Chalus were selected from the western cluster, the cities of Amol and Ghaemshahr from the central cluster and the cities of Sari and Galugah from the eastern cluster. In the third stage, from each city, two districts were randomly selected, which comprised Chamestan district in Noor city, Marzanabad district in Chalous city, Dabudasht district in Amol city and Nokandeh Ka district in Ghaemshahr city, Chahardangeh district in Sari, and Kolbad district in Galugah; In the fourth stage, one rural county from each district (selected in the third stage) was randomly selected, which included Lavij in Chamestan district (Noor) and Birun Bashm in Marzanabad district (Chalus), Dabu Miyani in Dabudasht district (Amol) and Nokandeh Ka in central district (Ghaemshahr), Poshtkuh in Chahardangeh district (Sari), and Kolbad Gharbi in Kalbad district (Galugah). In the fifth stage, five villages were chosen from each rural county. Thus, the sample consisted of 30 villages. The sixth step involved selecting households from the secleted villages. To determine the sample size, Cochran sampling formula was used. Since the first cluster (Eastern, Central, Western regions) was considered in ours study, and each cluster comprises more than 100,000 people, a sample size of n=384 was determined by the Cochran's formula. According to Cochran's formula, a confidence interval (CI) of 0.95 was considered for this study. Therefore, the probability level (d) was estimated at 0.05 and the variable size under normal distribution or CI (t) was estimated at 1.96. However, to improve reliability and account for possible incomplete questionnaires, the sample size was increased to n= 500. Given that there were three clusters in this study, the samples were divided between three clusters. Subjects were also selected using simple random sampling.

Environmentally Responsible Behavior: Conceptually, environmental responsibility is the recognition and performance of behaviors that directly or indirectly exert a positive or negative impact on the environment. In this research, environmentally responsible behavior was proposed in three dimensions (energy consumption, recycling and protection of natural resources). This concept was defined and implemented with a total of 16 items in the form of 5–point Likert scale (from strongly disagree (1) to strongly agree (5)).

Sociopsychology Factors: These factors reflect the general belief of people about the environment. The concern about the growing environmental crisis will have important implications not only for the natural world, but also for human society (Dunlap & Van Liere, 1978). In this research, attitude factors were presented in three categories of religious beliefs, environmental values and environmental knowledge. Religious beliefs describe beliefs that are based on value judgments and religious behaviors embrace external manifestations of religion. This concept was defined and implemented by 4 items in the form of a 5-point Likert scale (from strongly disagree (1) to strongly agree (5)). Environmental values encompass a person's basic attitude towards the environment and reflects one's worldview of the natural world (Barr, 2003). This concept was defined and implemented with 6 items in the form of a 5-point Likert scale (from strongly disagree (1) to strongly agree (5)). Environmental knowledge is the practical information that people have about the environment, the ecology of the planet Earth, and the impact of human actions on the environment/ecosystem (Arcury, 1990). This concept was defined and implemented with 5 items in the form of a 5-point Likert scale (from strongly

disagree (1) to strongly agree (5)). Also in this research, face and structural validity were evaluated. For this purpose, the measurement tool (questionnaire) was assessed by 5 professors and experts in the fields of sociology, environment (University of Mazandaran) and natural resources (Faculty of Agricultural Sciences and Natural Resources of Sari), and after ironing out the problems, the final questionnaire was prepared. The Cronbach's alpha coefficient was used to measure the reliability of the questionnaire to ensure that the respondents' perceptions of the questions were identical. Thus, Cronbach's alpha values of social psychology factors were obtained with 15 items (α= 0.79) and environmentally responsible behaviors with 16 items (α=0.78). Data were collected and analyzed in SPSS software using both descriptive and inferential statistics. The former consisted of mean, standard deviation, frequency and percentage and the latter include parametric correlation tests such as mean comparison, Pearson.

4. Research Findings

The results of the research are presented in two sections called descriptive findings and analytical findings.

4.1. Descriptive Findings

The mean age of the respondents was 29.43 years. Of a total of 536 subjects, 245 (45.7%) were men and 271 (50.6%) were female. Most respondents (35%) came from a family of four. We surveyed 119 (30%) people from among respondents in the age spectrum of 11 and 20 years in the study villages. As for marital status, 27 (56%) of the respondents were married and 158 (32%) were single. In terms of income status, 189 (40.4%) had a monthly income of one to two million Tomans and 113 (24.1%) had a monthly income of two to three million Tomans. As for employment, 147 (31.2%) were self-employed, 87 (18.5%) were farmers and 65 (12.1%) did not specify their type of job.

Table 1. Relative distribution of research variables

Variables	Mean	Standard deviation
Environmentally Responsible Behaviors	3.98	1.17
Religious Beliefs	3.73	1.22
Environmental Values	3.68	1.11
Environmental Knowledge	1.81	0.38

As shown in the table above, the mean value of environmentally responsible behavior (central tendency index) was in the medium level (3.98 out of 5) and the standard deviation (dispersion) was 1.17. The mean of sociopsychology factors such as religious beliefs was 3.73 (out of 5), which indicates the role of religious beliefs in environmental protection. The mean value of this component was in a relatively desirable level. The mean of environmental values (3.68) was in the medium level. The environmental knowledge of the respondents (1.81 out of 2) was also in a desirable level.

Table 2. Pearson correlation coefficient test to measure research variables

Independent variable	The dependent variable	Test value	Sig level
Age	Energy Consumption	0.075	0.10
	Recycle	-0.04	0.93
	Protection of Natural Resources	0.44	0.000
Number of Family Members	Energy Consumption	-0.11	0.01
	Recycle	0.31	0.52
	Protection of Natural Resources	0.034	0.47
Duration of Stay in the Village	Energy Consumption	0.052	0.30
	Recycle	-0.023	0.65
	Protection of natural resources	0.10	0.05
Income	Energy consumption	-0.031	0.51
	Recycle	-0.021	0.000
	Protection of Natural Resources	-0.14	0.000

5.2. Analytical Findings

As depicted in the table 2, there is a positive and moderate correlation between natural resource protection and age - the test value of 0.44 and the significance level of 0.000. Based on this, it can be asserted that the significant relationship between age and environmental protection is confirmed at 95% CI with 5% probability of error. This means that as people grow older, they develop a propensity for an environmentally responsible behavior for the protection of natural resources. There is also a negative but weak relationship between energy consumption and the number of family members at 99% CI and 1% probability of error. In other words, the consumption rate per person decreases. Also, considering the significant association between the length of stay in the village and the protection of natural resources – a weak and positive correlation at 99% CI with a probability of error of 1% - it can be concluded that with prolonged stay in the village, the tendency to protect natural resources also amplifies. It stresses the importance of the sense of spatial belonging. In addition, there is a significant negative correlation between the income and recycling and protection of natural resources at 95% CI and 5% probability of error. This means that as income levels elevates, so does the recycling and conservation behavior of individuals from natural resources.

Table 3. Comparison of the difference of the dependent variable in terms of the independent variable

Environmentally responsible behaviors	Gender	Number	Mean	T Value	Sig Level
energy consumption	Male	237	14.49	-0.190	0.91
	Female	358	14.55		
Recycle	Male	236	6.33	-0.122	0.98
	Female	258	6.54		
Protection of natural resources	Male	225	10.26	-0.903	0.91
	Female	248	10.45		

T-test was used to evaluate the relationship between gender variables. Given the difference between the means and significance listed in the table 3, it can be contended that the environmentally responsible behavior of the respondents and the dimensions of energy consumption, recycling and protection of natural resources are not significantly different in terms of gender. Comparison of the mean of the two groups also suggests lack of a difference in the level of environmentally responsible behavior of men and women.

Table 4. Comparison of the difference of the dependent variable in terms of the independent variable

Environmentally responsible behaviors	marital status	Number	Mean	F Value	Sig Level
Energy consumption	Single	145	14.65	1.45	0.23
	Married	267	14.70		
	No spouse	60	13.85		
Recycle	Single	150	6.46	0.091	0.91
	Married	265	6.45		
	No spouse due	56	6.57		
Protection of natural resources	Single	143	10.42	0.692	0.50
	Married	252	10.52		
	No spouse due	55	10.12		

One-way analysis of variance (ANOVA) was used to assess the relationship between the independent variable of marital status and responsible environmental behavior and its three dimensions. Informed by the test results and the significance presented in the table 4, it can be asserted that the environmentally responsible behavior of the respondents was not significantly different in any of dimensions. The comparison of the mean in the two groups also indicates no difference with respect to environmentally responsible behavior.

Table 5. Comparison of the difference of the dependent variable in terms of the independent variable

Environmentally responsible behaviors	Employment status	Number	Mean	F Value	Sig Level
Energy consumption	Private sector	37	14.97	1.06	0.38
	Governmental	78	14.58		
	Free	141	14.89		
	Farmer	83	14.84		
	Livestock	24	13.20		
	housewife	40	14.67		
Recycle	Private sector	36	6.58	2.90	0.000
	Governmental	74	6.36		
	Free	143	6.12		
	Farmer	86	6.37		
	Livestock	22	6.13		
	housewife	40	7.42		
Protection of natural resources	Private sector	34	10.11	2.10	0.01
	Governmental	74	10.37		
	Free	143	10.12		
	Farmer	74	10.33		
	Livestock	19	10.10		
	housewife	39	11.48		

The findings of table 5 indicate a difference between the components of environmentally responsible behavior and employment status, which is and significant at 99% CI and 1% probability of error. According to the results, in terms of recycling and protection of natural resources, housewives and housekeepers gained the highest average.

Table 6. Pearson correlation coefficient test to measure research variables

independent variable	The dependent variable	T Value	Sig Level
religious beliefs	energy consumption	0.04	0.38
	Recycle	0.06	0.15
	Protection of natural resources	0.12	0.005
Environmental values	energy consumption	0.08	0.06
	Recycle	-0.02	0.66
	Protection of natural resources	0.10	0.02
Environmental knowledge	energy consumption	0.16	0.000
	Recycle	-0.006	0.94
	Protection of natural resources	0.12	0.000

As can be seen in the table above, there is a positive and weak correlation between natural resource protection and religious beliefs - a test value of 0.12 and a significance level of 0.005. Accordingly, the significant relationship between religious beliefs and environmental protection is confirmed at 95% CI and 5% margin of error. This shows that religious beliefs contribute to environmentally responsible behaviors in relation to the protection of natural resources. There is also a relationship between the protection of natural resources and environmental values at 99% CI and a 1% margin of error. Hence, given the significance of the relationship between environmental knowledge and protection of natural resources, which was obtained at 95% CI and 5% margin of error, it can be concluded that by promoting environmental knowledge in individuals, they may adopt a more responsible attitude towards the environment and its protection. Finally, partial regression analysis was used to identify the variables that affect environmentally responsible behaviors. table 7 shows the most important variables.

Table 7. Simple regression coefficients of environmentally responsible behaviors

Variables	R	R Square	β	Constant	Sig Level	Durbin Watson
religious beliefs	0.11	0.01	0.11	28.52	0.01	1.49
Environmental values	0.14	0.01	0.14	27.35	0.003	1.46
Environmental knowledge	0.14	0.019	0.14	24.61	0.002	1.39
Age	0.080	0.004	0.080	30.36	0.09	1.42
Number of family members	0.11	0.010	-0.11	34.04	0.022	1.55
Duration of stay in the village	0.076	0.003	0.076	31.28	0.14	1.41
Income	0.067	0.002	-0.067	32.79	0.16	1.46

Based on the results of the table 7, four independent variables were able to predict changes in environmentally responsible behaviors. Environmental values and knowledge, religious beliefs and the number of family members are the main variables explaining variations in responsible environmental behaviors. Now, by removing variables with a slight effect, the stepwise regression analysis was used to find the most accurate explanatory variable. Table 8 shows the stepwise model regression analysis.

Table 8. Stepwise regression model of independent variables to explain responsible behaviors

Model	R	R Square	F Value	Sig Level	Constant
Step by step	0.13	0.015	5.80	0.000	1.48

The correlation coefficient of the stepwise regression model of independent variables for explaining responsible environmental behaviors was 0.13. According to the coefficient of determination, 0.015% of changes in environmentally responsible behaviors can be justified by environmental values. According to F ratio, the regression model is able to explain the dependent variable. If the effects of independent variables are controlled, the basic value of natural resource protection will be 1.48. Table 9 shows the impact coefficients of the final regression model that explain independent variables of responsible behaviors.

Table 9. Impact coefficients of the final regression model of independent variables explaining environmentally responsible behaviors

Variables	β	T Value	Sig Level	Tolerance	VIF
Constant	-	18.79	0.000	-	
Environmental values	0.13	2.41	0.016	1	1

As table 9 shows, environmental values have the greatest impact on environmentally responsible behaviors. T-test values are also greater than 2, indicating the fitness of the model for testing. Tolerance and VIF values also corroborate the minimum co-linearity between these variables.

5. Discussion and Conclusion

Today, with the aggravation of environmental issues such as energy crisis, climate change, destruction of natural resources and increased waste production caused by urban development, the environmental challenges facing humans have drawn the attention of scholarly circles. The present study aimed to identify socio-psychological factors affecting the behavior of respondents. In this context, an environmentally responsible behavior is the type of behavior that consciously seeks to minimize the negative effects of individual actions on the natural world. Such behavior is influenced by motivation, empowerment, and evaluation of the impact of individual actions. The main question that arises is whether sociopsychological factors studied here including religious beliefs, environmental value and environmental knowledge have a bearing on the environmentally responsible behavior of the respondents. In this paper, the conceptual model of sociopsychology was adopted as a theoretical framework to explain the research subject. Based on the research findings, the environmentally responsible behavior of the respondents was calculated to be in the medium level (mean = 3.98 out of 5). Moreover, the results of the hypothesis

testing indicated a significant and positive relationship between attitudes and responsible environmental behaviors. Responsible behavior was also positively correlated with age - a test value of 0.44 and a significance level of 0.000. The consumption rate per person. A weak and positive association was found between the length of stay in rural areas and the protection of natural resources. In addition, there was a significant negative correlation between income, recycling and protection of natural resources. Moreover, a statistically significant difference was observed between the mean value of responsible environmental behavior and employment status. These differences were evident in the dimensions of recycling and conservation of natural resources. The correlation coefficient of the stepwise regression model of independent variables that justify responsible environmental behaviors is 0.13. According to the coefficient of determination, 0.015% of changes in environmentally responsible behaviors could be explained by the variable of environmental values. The results of the present study are in line with the findings reported in previous reaserches including Marzban et al. (2019), Naimi et al. (2018), Naderi (2018), Sojasi Gheidari & Arab Teymouri (2018), Jalali (2018), Rosa & Collado (2019), Chen (2017), Choudri et al. (2016), Janmaimool & Denpaiboon (2016) and Piapong & Denpaiboon (2016). In short, the results suggested that the conceptual sociopsychology model is well suited for examining the responsible behavior of individuals and determinants of environmental behaviors at rural communities. According to the present research model, the conceptual model of social psychology was modified by adding other factors presented in previous research. In any case, the results manifested that the modified model of sociopsychology could explain an environmental problem at an acceptable level. Thus, this model can be adopted in similar research carried out in other rural areas of the country.

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Original Article

مسئولیت محیط زیستی در مناطق روستایی (مورد مطالعه: مناطق روستایی استان مازندران)

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چکیده مبسوط

۱. مقدمه

جهان امروز با مشکلات زیست محیطی متعددی مانند گرمایش زمین، آلودگی هوا و کمبود آب رو برو است. آنچنان که پیش‌بینی می‌شود، رفاه و امنیت سیاره زمین در خطر است. متأسفانه وضعیت محیط زیست در کشور، مانند بسیاری ازکشورهای جهان بحرانی است. محققان بر این باورند که که برای دستیابی به تغییرات رفتاری در ارتباط با محیط زیست، نخست باید در نگرش افراد نسبت به محیط زیست تغییر ایجاد کرد. به عبارتی‌افرادی که نگرش مثبت زیست‌محیطی بیشتری دارند، احتمالاً رفتارهای زیست‌محیط‌گرایانه بیشتری ازخود نشان می‌دهند. یکی از ابزارهایی که باعث تغییر در نگرش و رفتار افراد در سطح جامعه می‌شود، آموزش فراگیر و مؤثر است. آموزش علاوه بر آگاهی، باعث تغییر در نگرش خواهد شد. بنابراین با استنباط از مباحث پیشین می‌توان گفت که با بررسی نگرش‌های موجود در جامعه و شناخت آن تا حدودی می‌توان سمت و سوی رفتار یک جامعه را پیش بینی نمود و چنانچه تغییر اساسی در نگرش‌های افراد مشاهده شود باید منتظر وقوع رفتارها و تحولات جدید متناسب با آن تغییرات در جامعه بود. در نهایت سؤال اساسی که در این تحقیق مطرح می‌شود این است که نوع نگرش مردم نسبت به محیط زیست به چه صورت است؟ و رفتارهای مسؤولانه محیط زیستی در بین روستاییان چگونه است؟ این امر، نیازمند شناخت وضعیت موجود رفتارهای محیطی زیستی در بین مردم است تا با شناخت علمی و نیز شناسایی عوامل اجتماعی مؤثر بر این نوع رفتارها، سیاست‌های علمی مناسب و راهکارهای لازم برای توسعه رفتارهای مسؤولانه محیط زیستی در بین مردم را ارائه داد.

۲. روش تحقیق

روش تحقیق پژوهش حاضر از نوع توصیفی- همبستگی بوده و برای جمع‌آوری داده‌ها از روش پیمایش با استفاده از ابزار پرسشنامه محقق ساخته بسته پاسخ استفاده شده است. واحد تحلیل در این پژوهش، فرد ساکن روستایی است. جامعه آماری پژوهش حاضر ساکنان مناطق روستایی استان مازندران در سال ۱۳۹۸ هستند. با استفاده از روش نمونه گیری خوشه‌ای چند مرحله‌ای، استان به سه خوشه شرق، مرکزی و غرب تقسیم شد. از هر خوشه سه شهرستان انتخاب شد. که با توجه به این که خوشه بندی اول (سه منطقه شرق، مرکزی، غرب) ملاک قرار گرفته است و در هر خوشه بیش از یکصد هزار نفر سکونت دارند، با جای‌گذاری اعداد در فرمول کوکران، حجم نمونه به تعداد ۳۸۴ تعیین شدند.

مع الوصف، برای اطمینان بیشتر و رفع نواقص احتمالی در تکمیل پرسشنامه‌ها، تعداد نمونه به ۵۳۶ مورد افزایش یافت. با توجه به این که در این تحقیق، سه خوشه وجود دارد، این تعداد نمونه، بین سه خوشه تقسیم شد.

افراد نمونه نیز به صورت تصادفی ساده انتخاب شدند. از نظر مفهومی، مسؤولیت‌پذیری محیط زیستی، پذیرش و انجام رفتارهایی است که به طور مستقیم یا غیر مستقیم بر روی محیط زیست اثر مثبت یا منفی می‌گذارند. در این تحقیق رفتار مسئولانه محیط زیستی در قالب سه بعد (مصرف انرژی، بازیافت و حفاظت از منابع طبیعی) مطرح شده است. این مفهوم در مجموع با ۱۶ گویه در قالب طیف لیکرت از کاملاً مخالفم با امتیاز (۱) تا کاملاً موافقم با امتیاز (۵) تعریف و عملیاتی سازی شده است. برای سنجش میزان پایایی پرسشنامه از ضریب آلفا کرونباخ استفاده شد تا از میزان یکسان بودن برداشت پاسخگویان از سؤالات اطمینان حاصل شود.

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بدین ترتیب مقادیر آلفای کرونباخ متغیر عوامل روانشناسی اجتماعی با ۱۵ گویه (مقدار آلفا=۰/۷۹) و رفتارهای مسئولانه محیط زیستی با ۱۶ گویه (مقدار آلفا=۰/۷۸) به دست آمده است.

۳. یافته‌های تحقیق

میانگین رفتار مسئولانه محیط زیستی (مشخصه گرایش به مرکز) پاسخگویان متوسط (۳/۹۸)، باورهای دینی ۳/۷۳، سطح ارزش های محیط زیستی پاسخگویان در سطح متوسط با مقدار میانگین ۳/۶۸ از ۵و سطح دانش محیط زیستی پاسخگویان با توجه به مقدار میانگین ۱/۸۱ از ۲ مطلوب است. بر اساس نتایج به دست آمده بر اساس مقادیر میانگین‌ها می‌توان گفت، میانگین نمرات در هر سه طبقه وضعیت تأهل تفاوتی ندارند. به طور کلی، می‌توان اینچنین عنوان نمود که بین مسؤولیت‌پذیری جامعه روستایی نسبت به محیط زیست و وضعیت تأهل تفاوت میانگین وجود ندارد و این تفاوت به لحاظ آماری معنی‌دار نیست. بین میانگین مؤلفه‌های رفتار مسؤولانه محیط زیستی و وضعیت اشتغال تفاوت وجود دارد و این تفاوت به لحاظ آماری معنی‌دار می‌باشد. این تفاوت‌ها در ابعاد بازیافت و حفاظت از منابع طبیعی آشکار است. مقایسه بین گروه‌ها هم نشان می‌دهد که در سه بعد رفتار محیط زیستی، خانه دارها که زنان هستند، میانگین بیشتری دارند. بین مؤلفه حفاظت از منابع طبیعی و باورهای دینی همبستگی مثبت و قوی به دست آمده است. همچنین بین حفاظت از منابع طبیعی و ارزش‌های محیط زیستی رابطه‌ای معنی‌دار وجود دارد؛ با توجه به سطح معنی داری به دست آمده رابطه بین دانش محیط زیستی و حفاظت از منابع طبیعی نیز معنی‌دار است. در نهایت، در مجموع چهار متغیر مستقل توانستند تغییرات رفتارهای مسئولانه محیط زیستی را پیش بینی کنند. متغیرهای ارزش‌ها و دانش محیط زیستی، باورهای دینی و تعداداعضای خانواده به ترتیب مهم ترین متغیرهای تبیین کننده تغییرات رفتارهای محیط زیستی مسئولانه هستند. ضریب همبستگی مدل گام به گام رگرسیون متغیرهای مستقل برای تبیین رفتارهای محیط زیستی مسئولانه با ۰/۱۳ برابر است. مطابق با ضریب تعیین، ۰/۰۱۵ درصد تغییرات رفتارهای مسئولانه محیط زیستی با متغیر ارزش‌های محیط زیستی قابل تبیین است. در ارزیابی نهایی می‌توان گفت تحقیق حاضر نشان داد که مدل مفهومی روانشناسی اجتماعی، نظریه مناسبی برای بررسی میزان مسؤولیت پذیری افراد و عوامل تأثیر گذار بر رفتارهای محیط زیستی در سطح اجتماعات روستایی است. اساس مدل تحقیقی حاضر، مدل مفهومی روانشناسی اجتماعی بوده است که با افزودن عوامل مؤثر دیگری که در تحقیقات پیشین مطرح شدند و البته در یک قالب منطقی، تعدیل شد.

۴. بحث و نتیجه‌گیری

امروزه با افزایش مسائل زیست محیطی از قبیل بحران انرژی، تغییر آب و هوا، اتلاف و تخریب منابع طبیعی و افزایش مواد زائد ناشی از توسعه شهرنشینی، اثر انسان بر محیط از چالشی‌ترین مسائل مورد توجه مجامع علمی است. پژوهش حاضر با هدف شناخت عوامل روانشناسی و اجتماعی مؤثر بر رفتار پاسخگویان تهیه و تدوین شده است. در این میان، رفتار مسئولانه محیط زیستی رفتاری است که آگاهانه درصدد به حداقل رساندن تأثیرات منفی کنش‌های فردی بر جهان طبیعی می‌باشد. چنین رفتاری از انگیزش، توانمندی، ارزیابی اثر عمل فردی تأثیر می‌پذیرد. سؤال اساسی که مطرح می شود این است که آیا عوامل روانشناسی اجتماعی که در این تحقیق شامل باورهای دینی، ارزش محیط زیستی و دانش محیط زیستی می‌باشد، بر رفتار مسئولانه محیط زیستی پاسخگویان تأثیرگذار است؟ در این پژوهش، از مدل مفهومی روانشناسی اجتماعی به عنوان چارچوب نظری برای تبیین موضوع تحقیق استفاده شده است. براساس یافته‌های تحقیق، میزان رفتار مسئولانه محیط زیستی پاسخ‌گویان در حد متوسط با مقدار (میانگین= ۳/۹۸ از ۵) محاسبه شده است. علاوه بر این نتایج حاصل از آزمون فرضیات نشان داد که بین نگرش و رفتارهای محیط زیستی مسئولانه رابطه معنی دار و مثبت وجود دارد. ضریب همبستگی مدل گام به گام رگرسیون متغیرهای مستقل برای تبیین رفتارهای محیط زیستی مسئولانه با ۰/۱۳ برابر است. مطابق با ضریب تعیین، ۰/۰۱۵ درصد تغییرات رفتارهای مسئولانه محیط زیستی با متغیر ارزش‌های محیط زیستی قابل تبیین است. در ارزیابی نهایی می‌توان گفت تحقیق حاضر نشان داد که مدل مفهومی روانشناسی اجتماعی، نظریه مناسبی برای بررسی میزان مسؤولیت پذیری افراد و عوامل تأثیر گذار بر رفتارهای محیط زیستی در سطح اجتماعات روستایی است. اساس مدل تحقیقی حاضر، مدل مفهومی روانشناسی اجتماعی بوده است که با افزودن عوامل مؤثر دیگری که در تحقیقات پیشین مطرح شدند و البته در یک قالب منطقی، تعدیل شد.

کلیدواژه‌ها: عوامل روانشناسی اجتماعی، رفتار مسؤولانه محیط زیستی، روستائیان، استان مازندران.

تشکر و قدردانی

این مقاله مستخرج از طرح تحقیقاتی با عنوان "سنجش وضع مسئولیت‌پذیری جامعه روستایی نسبت به محیط زیست و ارتقاء آن در استان مازندران"، می‌باشد که با حمایت صندوق حمایت از پژوهشگران و فناوران کشور- معاونت علمی و فنآوری ریاست جمهوری انجام پذیرفته و بدین وسیله از حمایت آن کارفرمای محترم قدردانی می‌شود.

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فهرست مندرجات

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۹. ۳. انواع نقل قول‌ها (مستقیم و غیر مستقیم)، نقل به مضمون و مطالب به دست آمده از منابع و مآخذ، با حروف نازک و استفاده از نشانه‌گذاری‌های مرسوم، مشخص شود و نام صاحبان آثار، تاریخ و شماره صفحات منابع و مآخذ، بلافاصله در میان پرانتز نوشته شود.

۱۰. مقالات برگرفته از رساله و پایان‌نامه دانشجویان با نام استاد راهنما، مشاوران و دانشجو به صورت توأمان و با مسؤولیت استاد راهنما منتشر می‌شود.

۱۱ . چنانچه مخارج تحقیق یا تهیه مقاله توسط مؤسسه‌ای تأمین مالی شده باشد، باید در بخش تشکر و قدردانی مشخص گردد.

۱۲ . شیوه ارزیابی مقالات: مقالات ارسالی که شرایط پذیرش را احراز کنند، برای داوران خبره در آن موضوع ارسال می‌شوند. داوران محترم، جدای از ارزشیابی کیفی مقالات، راهبردهای سازنده‌ای پیشنهاد می‌کنند. پیشنهادهای داوران محترم به طور کامل، اما بدون نام و نشان داور، برای نویسنده مقاله ارسال خواهد شد.

۱۳ . مجله حق رد یا قبول و نیز ویراستاری مقالات را برای خود محفوظ می‌دارد و مقالات مسترد نمی‌گردد. اصل مقالات رد یا انصراف داده شده پس از سه ماه از مجموعه آرشیو مجله خارج خواهد شد و مجله پژوهش و برنامه‌ریزی روستایی هیچ مسئولیتی در این ارتباط نخواهد داشت.

۱۴ . مسؤولیت ارائه صحیح مطالب مقاله بر عهده‌ی نویسندگان مقاله است. از این‌رو، نسخه‌ای از مقاله آماده چاپ برای انجام آخرین تصحیحات احتمالی به نشانی الکترونیکی نویسنده ارسال خواهد شد. چنانچه ظرف مدت یک هفته پاسخی از سوی نویسندگان واصل نگردید به معنای موافقت آنها با اصلاحات انجام شده تلقی و نسبت به چاپ آن اقدام می‌شود.

۱۵. دریافت مقاله صرفاً از طریق سامانه مجله خواهد بود و مجله از پذیرش مقالات دستی یا پستی معذور خواهد بود.

۱۶. نویسندگان گرامی، مقالاتی که مطابق فرمت مجله تهیه نشده باشند به نویسنده بازگردانده شده و در فرآیند ارزیابی قرار نخواهد گرفت.

۱۷. فایل های ضروری برای ارسال از طریق سامانه عبارتند از:

الف) فایل مشخصات نویسندگان: در محیط شامل اسامی و مشخصات نویسندگان به فارسی و انگلیسی.

ب) فایل اصلی مقاله بدون مشخصات: در محیط شامل متن اصلی مقاله بدون اسامی و مشخصات نویسندگان.

ج) فایل چکیده مبسوط (مکمل) مقاله: شامل چکیده مبسوط فارسی در قالب یک فایل در محیط .

۱۸. شرایط جزئی تر و دقیق تر نیز در فایل راهنمای نگارش و ارسال مقاله توسط نویسندگان ارائه شده است.

۱۹. مقاله پس از ارزیابی علمی به زبان انگلیسی برگردانده شده و نویسنده(گان) موظف به ترجمه آن در مراکز ویراستاری معتبر خواهند بود و تا قبل از انجام ترجمه، امکان ارسال گواهی پذیرش مقدور نمی‌باشد. لذا پیشنهاد می‌شود فارسی زبانان مقاله خود را به زبان فارسی تهیه و ارسال نموده و پس از طی فرایند ارزیابی علمی و پذیرش نسبت به ترجمه آن اقدام شود.

آدرس پستی: مشهد- میدان آزادی- پردیس دانشگاه فردوسی مشهد- دانشکده ادبیات و علوم انسانی- دفتر مجلهٔ پژوهش و برنامه‌ریزی روستایی.

کد پستی: ۹۱۷۷۹۴۸۸۸۳ تلفن و نمابر: ۰۵۱-۳۸۷۹۶۸۴۰ پست الکترونیکی

وب سایت:

فرم اشتراک (یک ساله/ دوشماره) **مجلهٔ پژوهش و برنامه‌ریزی روستایی**

این جانب ..... شغل ..... با ارسال فیش بانکی به مبلغ ..... ریال به حساب جاری شماره **۴۲۵۲۹۹۶۳۸** بانک تجارت شعبه دانشگاه مشهد کد ۴۲۵۰ به نام عواید اختصاصی دانشکده ادبیات و علوم انسانی، متقاضی اشتراک فصلنامه از شماره .....هستم. چنانچه صاحبان مقالات منتشر شده متقاضی دریافت مجلّه و تیراژه‌ی آن از طریق پست پیشتاز باشند، باید هزینه‌ی آن را به شماره حساب مذکور واریز و اصل فیش پرداختی را به نشانی دفتر مجلّه ارسال کنند.

نشانی: ..... کدپستی: .....

شرایط پذیرش مقاله

برای سرعت بخشیدن به امر داوری و چاپ مقالات، از همهٔ پژوهشگرانی که مایل به چاپ مقالات علمی خود در این نشریه هستند، درخواست می‌شود به نکات زیر توجه کافی داشته باشند:

۱ . مقالهٔ ارسال شده نباید قبلاً در هیچ نشریهٔ داخلی یا خارجی چاپ شده باشد. هیئت تحریریه انتظار دارد نویسندگان محترم تا هنگامی‌که جواب پذیرش از نشریه نرسیده است، مقالهٔ خود را به مجلهٔ دیگری برای چاپ ارسال نفرمایند.

۲ . مقالات انگلیسی با قلم نازک با نرم افزار تهیه شود. مقالات، روی کاغذ (با حاشیه از بالا ۳ و پایین ۲ و راست ۲ و چپ ۲ سانتی‌متر) تایپ شود. متن به صورت دو ستونی با رعایت فاصله ۱ سانتی‌متر بین دو ستون و فواصل بین خطوط به صورت باشد. ۳ . حجم مقاله نباید ازحدود ۹۵۰۰ کلمه و یا حداکثر ۱۵ صفحهٔ چاپی به قطع نشریه بیشتر باشد (با در نظر گرفتن محل جداول، اشکال، خلاصه فارسی و فهرست منابع).

۴ . عنوان مقاله با در نظرگرفتن فواصل بین کلمات نباید از ۶۰ حرف تجاوز کند و با قلم سیاه تایپ شود.

۵ . نام نویسندهٔ مقاله با قلم سیاه عنوان علمی یا شغلی او با قلم در زیر عنوان مقاله ذکر شود. ضمناً آدرس الکترونیکی و شماره تلفن نویسندهٔ مسؤول در پاورقی آورده شود.

۶ . چکیدهٔ مقاله ساختاریافته با قلم نازک به صورت تک ستونی باشد.

۷ . شکل‌ها و نمودارهای مقاله حتماً اصل و دارای کیفیت مطلوب باشد. فایل اصلی اشکال (تحت ، ،) و با دقت ۳۰۰ ارائه شود. اندازهٔ قلم‌ها خصوصاً در مورد منحنی‌ها ( ) به گونه‌ای انتخاب شوند که پس از کوچک‌شدن مقیاس شکل برای چاپ نیز خوانا باشند.

۸ . ساختار مقاله شامل عناصر زیر است:

۸. ۱ صفحهٔ عنوان: در صفحهٔ شناسنامه باید عنوان مقاله، نام و نام خانوادگی نویسنده (نویسندگان)، درجهٔ علمی، نشانی دقیق (کد پستی، تلفن، دورنگار و پست الکترونیکی)، محل انجام پژوهش، مسؤول مقاله و تاریخ ارسال) درج شود. عهده‌دار مکاتبات باید با علامت ستاره مشخص شود.

۸. ۲ چکیده: شامل چکیده‌های فارسی ساختار یافته (شامل هدف؛ روش؛ یافته‌ها؛ محدودیت‌ها؛ راهکارهای عملی؛ اصالت و ارزش و واژگان کلیدی (۳ تا ۶ کلمه)) است. تا حد امکان چکیدهٔ مقاله از ۳۰۰ کلمه تجاوز نکند . علاوه بر چکیده ساختار یافته، لازم است چکیدهٔ مبسوط فارسی بین ۷۵۰ تا ۱۰۰۰ کلمه نیز حاوی مقدمه، مبانی نظری، روش، نتایج و بحث، نتیجه‌گیری و کلیدواژه‌های مقاله تهیه شود، به طوری که حاوی اطلاعاتی از کل مقاله باشد و بتوان جداگانه آن را چاپ کرد. با توجه به این که مقاله بعدا به صورت کامل به انگلیسی برگردانده خواهد شد، نیازی به ترجمه چکیده مبسوط به انگلیسی نیست.

۸. ۳ مقدمه: شامل ۱-طرح مسئله؛ ۲-اهمیت و ضرورت؛ ۳-اهداف و سوالات اصلی تحقیق.

۸. ۴ ادبیات نظری تحقیق: شامل ۱- تعاریف و مفاهیم؛ ۲- دیدگاه‌ها و مبانی نظری؛ ۳- پیشینه نظری تحقیق و ... .

۸. ۵ روش‌شناسی تحقیق: در برگیرندهٔ ۱- محدوده و قلمرو پژوهش؛ ۲- روش تحقیق و مراحل آن (روش تحقیق، جامعهٔ آماری، روش نمونه‌گیری، حجم نمونه و روش تعیین آن، ابزار گردآوری داده‌ها و اعتبارسنجی آن‌ها)؛ ۳- سؤال‌ها و فرضیه‌ها؛ ۴- معرفی متغیرها و شاخص‌ها؛ ۵- کاربرد روش‌ها و فنون.

۸. ۶ یافته‌های تحقیق: ارائهٔ نتایج دقیق یافته‌های مهم با رعایت اصول علمی و با استفاده از جداول و نمودارهای لازم.

۸. ۷ بحث و نتیجه‌گیری: شامل آثار و اهمیت یافته‌های پژوهش و یافته‌های پژوهش‌های مشابه دیگر با تأکید بر مغایرت‌ها و علل آن، توضیح قابلیت تعمیم‌پذیری و کاربرد علمی یافته‌ها و ارائهٔ رهنمودهای لازم برای ادامهٔ پژوهش در ارتباط با موضوع، نتیجه‌گیری و توصیه‌ها و پیشنهادهای احتمالی.

۸. ۸ تشکر و قدردانی: قبل از منابع مورد استفاده ارائه شود و از ذکر عناوین دکتر و مهندس خودداری شود.

۹. نحوهٔ ارجاعات: منابع و مآخذ باید به صورت درون‌متنی و همچنین در پایان مقاله ذکر شود.

۹. ۱ ارجاعات در متن مقاله باید به شیوهٔ داخل پرانتز ( ) نسخه ۶ باشد؛ به گونه‌ای که ابتدا نام مؤلف یا مؤلفان، سال انتشار و صفحه ذکر شود. شایان ذکر است که ارجاع به کارهای چاپ شده فقط به زبان فارسی بوده و در اسامی لاتین معادل آن در زیر نویس همان صفحه ارائه شود. به عنوان نمونه: (شکوئی، ۱۳۸۷، ص. ۵۰) یا (وودز، ۲۰۰۵، ص. ۲۷).

۹. ۲ در پایان مقاله، منابع مورد استفاده در متن مقاله، به ترتیب الفبایِ نام خانوادگی نویسنده بر اساس الگوی فهرست نویسی تنظیم گردد.

نمونه فارسی:

- رضوانی، م. ر. (۱۳۹۰). *برنامه‌ریزی توسعهٔ روستایی در ایران*. چاپ چهارم. تهران: نشر قومس.

- عنابستانی، ع. ا.، شایان، ح.، و بنیادداشت، ا. (۱۳۹۰). بررسی نقش اعتبارات بر تغییر الگوی مسکن در نواحی روستایی (مطالعهٔ موردی: شهرستان بهمئی). *مجلهٔ برنامه‌ریزی فضایی*، ۱ (۳)، ۸۰-۶۳.

نمونهٔ انگلیسی:

بسم الله الرحمن الرحيم

دانشکده ادبیات و علوم انسانی

مجلّهٔ پژوهش و برنامه‌ریزی روستایی

سال دهم، شمارهٔ ۱، زمستان ۱۳۹۹، شمارهٔ پیاپی ۳۲

صاحب امتیاز: دانشگاه فردوسی مشهد

مدیر مسئول: دکتر حمید شایان

سردبیر: دکتر علی‌اکبر عنابستانی

دستیار سردبیر: مهدی جوانشیری

مدیر اجرایی: زهرا بنی‌اسد

ویراستار انگلیسی: مرکز ویراستاری ادبیات

حروف‌نگاری و صفحه‌آرایی : الهه تجویدی

شمارگان: ۵۰ نسخه

نشانی: مشهد، دانشگاه فردوسی مشهد، دانشکدهٔ ادبیّات و علوم انسانی دکتر علی شریعتی، کد پستی ۹۱۷۷۹۴۸۸۸۳ ، نمابر: ۳۸۷۹۶۸۴۰ (۰۵۱)

بها: داخل کشور: ۲۰۰۰۰۰ ریال (تک‌شماره) خارج کشور: ۲۵ دلار (آمریکا- سالانه)، ۲۰ دلار (سایر کشورها- سالانه)

درگاه الکترونیکی:

*** این مجله در جلسهٔ کمیسیون بررسی نشریات علمی کشور مورخ ۱۳۹۲/۲/۲۵ رتبهٔ علمی- پژوهشی دریافت و طی نامهٔ شمارهٔ ۳/۱۸/۳۵۷۲۸ در تاریخ ۱۳۹۲/۳/۱۳ ابلاغ گردیده است.**

این مجلّه در پایگاه های زیر نمایه می‌شود:

- **پایگاه استنادی علوم جهان اسلام ( )**
- **پایگاه اطلاعات علمی جهاد دانشگاهی ( )**
- **پایگاه بانک اطلاعات نشریات کشور ( )**
- **فهرست دسترسی آزاد مجلات ( )**
-

JRRP

مجله پژوهش و برنامه ریزی روستایی

سال دهم، شماره ۱، زمستان ۱۳۹۹، شماره پیاپی ۳۲