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Investigating the Role of Non-Governmental Organizations in Achieving Sustainable Rural Development (Case Study: Golestan Province)

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Abstract

Purpose- The importance of non-governmental organizations in underdeveloped or developing countries such as Iran is more than anything due to the ability of such organizations in advancing culture in the most basic sectors of society. The purpose of this research is to analyze the role of non-governmental organizations in Golestan province in achieving sustainable rural development.

Design/methodology/approach- This research is descriptive-correlative. The experts of consulting firms of Golestan province constituted the statistical population (n=706) of whom 249 were selected as the sample using stratified random sampling method. The validity of the research instrument was evaluated by faculty members and experts. The pre-test and questionnaire validation were conducted by giving the questionnaires to 30 subjects other than the statistical sample. A Cronbach's alpha of 0.88 was calculated for the reliability coefficient.

Finding- According to the results, collective performance of tasks, the use of information and communication technology in providing services, the promotion of skills in producers and beneficiaries of the agricultural sector, improvement of agricultural knowledge in producers and beneficiaries, agricultural technical-vocational training, teaching of management skills and administration of entrepreneurial business along with group dynamics were the major roles of non-governmental organizations in achieving sustainable rural development. The results showed that the communicative and economic knowledge factor and economy with a specific value of 6.86 had the highest power in explaining variables, followed by the educational-promotional factor with a specific value of 6.38 and the social-facilitating factor with a specific value of 5.97. In total, about 65.2% of the total variance was explained.

Practical implications- In order to achieve sustainable rural development, it is suggested that non-governmental organizations play their roles in raising income and improving the living standards of farmers, accessing resources and facilities for providing services, diversifying agricultural and agricultural activities, reducing costs and establishing contact with farmers. It also promotes the level of knowledge and skills of producers and beneficiaries in the agricultural sector.

Keywords: Non-governmental organizations (NGOs), Sustainable rural development, Experts of consulting firms, Golestan Province.
Paper type- Scientific & Research.

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1. Introduction

Today, the process of development represents one of the major areas of research worldwide, especially in developing countries. The progress and development of the countries requires the exploitation of the potentials and the active participation of people in the stages of development. In this context, development and participation are perceived as closely interwined, and the process of development would lead to stability and success provided that it is accompanied by the participation of people (Moghanizadeh, 2002). Programs undertaken by non-governmental organizations (NGOs) can contribute to sustainable development process at a certain level. (Azizul & Ahmed, 2013). NGOs and other groups in developing countries are called partners in the sense that they receive aids and donations and assume the responsibility of implementing projects for the target population. Accordingly, international organizations such as UN agencies, the World Bank, CIS countries, as well as regional organizations such as the European Union and the African Union will provide the necessary funds for programs and activities of NGOs. These funds are managed by civil society organizations with the aim of promoting, developing and improving the provision of services for the people (Lekorwe & Mpabanga, 2007). NGOs take a variety of forms around the world. In its most general sense, an NGO refers to an organization that is not directly part of the state administrative structure, but plays a major intermediary role between the individuals, ruling system and even community itself. Sustainable development is a type of development that can meet the current human needs without compromising the environmental and biological capabilities of future generations in satisfying their needs. The main goal of sustainable development is to address basic needs, improve the standard of living for all people, maintain and conserve ecosystems and promise a safer and more prosperous future, which is also a function of modern management in rural areas. In general, sustainable development is a strategy for promoting productivity, social and economic, which is aimed at comprehensive development of environmental function for the continuous improvement of human quality of life (APO, 2005). Sustainable rural development is the process of aiding rural people by prioritizing their needs, investing in building infrastructure and providing social services, establishing justice and equity in accordance with local capacities, taking measures to compensate for all previous inequities and ensuring their health and safety, especially women (Van Der Ploeg et al., 2000). Following the UNCED conference in Rio 1992, the concept of sustainable development has turned into a new model of social development, which has been incorporated into a number of international programs and agreements. Consulting firms such as NGOs play an integral role in sustainable rural development. In Iran, these firms operate all across the country, and there are 117 active consulting firms in Golestan province. This research seeks to identify factors that enhance the role of consulting firms in achieving sustainable rural development.

2. Research Theoretical Literature

There is no clear and agreed-upon definition of NGOs, and due to the diversity of their roles and characteristics, various definitions of NGOs have been proposed. In fact, these organizations are accompanied with the phrase non-governmental. Streeten (1997) points out that NGOs often define themselves as institutions that stand opposite the government, which is often censured for being too huge, inflexible, bureaucratic, hierarchical and ineffective in dealing with the problems of the disadvantaged. If these organizations are defined as institutions that operate beyond the authority of the state, they will embrace a wide range of entities. The prefix “non-profit” is also often used with these organizations for greater precision. In fact, the nonprofit sector refers to organizations that work on a voluntary basis to mobilize and coordinate forces with the aim of alleviating the suffering and fostering human development (Streeten, 1997).

The importance of NGOs in underdeveloped or developing countries such as Iran is more than anything due to the ability of such organizations in building culture in the most basic sectors of society. The historical experience of the development process in developed and developing countries has made it clear that rural development is vital to national development and should be prioritized in development plans (Shakori, 2001). If the Third World countries are supposed to develop and obtain sustainable development, they need to commence development from rural areas, in particular from the agricultural sector. The fundamental issues such as widespread poverty, growing inequality, rapid population growth

and rising unemployment are all rooted in stagnation and deteriorating economy of rural life. In the absence of rural development as an integral part of macro development programs in any country, industrial development will also fail, or if succeeds, will give rise to severe internal imbalances that will provoke massive poverty, inequality and unemployment. In general, the following features should be considered in the definition of NGOs (Saeidi, 2002).

2.1. Non-profit

These organizations are not motivated with financial incentives and are established to contribute to the benefits of specific individuals or groups. Although NGOs can enter into business and generate profits and capital, their earnings must be utilized solely for the purpose of implementing the mission of the organization or investment in the organization.

2.2. No state affiliation

NGOs are founded by people and governments usually do not have much part to play in their establishment and management. They encompass associations, assemblies, professional groups, religious organizations and charities, among other things.

2.3. Voluntary

NGOs are established by people on a voluntary basis. On the one hand, these organizations are required to comply with existing laws and regulations, and on the other hand, no state organization is allowed to interfere with their creation, management and dissolution under normal conditions. People's membership in NGOs is voluntary.

2.4. Possession of a legal status

In order to expand the activities of NGOs, certain laws have been introduced and within the framework of these laws, these organizations are registered and granted a legal status. Such a legal status not only helps build people's trust in NGOs but they can also enter into contract with government agencies and use various facilities such as bank facilities.

2.5. Democratic and participatory management

Since NGOs are run by people, the administration process often takes a bottom-up approach and is participatory in nature. This feature allows members to constantly monitor the performance of managers, and managers are held accountable for their performance vis-à-vis the members. Overall, it nurtures dynamism in the organization.

2.6. Self-regulation

NGOs are financially self-governing. Although they receive aids from the government, charities, international organizations, etc., these donations should not make them dependent on donors in a way that NGOs lose sight of their social obligations and missions.

2.7. Non-political

These organizations have a social commitment. Their main goal is to serve the community, the deprived and vulnerable groups and to deal with gender-racial discrimination, environmental problems, etc. The mechanisms for establishing NGOs are also different from political organizations (parties), and they usually pledge an oath at the time of the establishment to refrain from entering political areas. However, this feature should not be construed as a pretext for passivity in organizing campaigns and movements aimed at censuring the governmental and international plans. They can criticize government and international organizations, expose their agenda and coordinate peaceful marches.

Lee (2015) reports that the Asia-Pacific UN has ascertained over the past five decades that, by focusing on politics, a link between natural resource scarcity, security and sustainable development can be established to boost economic growth, and that fear of insufficient physical power can undermine prosperity and economic prosperity. Fowler (2004) argues that the days of individual and solitary activities with the cooperation of other organizations are numbered. With the increasing demands of citizens from governments, it is no longer possible for the government to provide all the goods and services. For this reason, in recent years, the support and interest for NGOs have been on rise due to the failure of governments to provide adequate and appropriate services. Accordingly, in most developed and developing countries, such civil institutions are set up to supplement the development and service efforts of governments.

Ritvo (2014) states that NGOs, to increase their probability of success in providing their intended programs and services, make optimum use of their financial resources and limited staff.

Stein, Ernstson, and Barran (2011), in their study on the relationships between NGOs and private enterprises and other associations founded by people that are active in agriculture, livestock farming, water and soil resources management and forest and environmental protection, concluded that NGOs have a vital role in

determining conservation measures in Tanzania. In this regard, the results of network analysis showed that NGOs play a pivotal role in establishing knowledge networks to protect resources compared to other actors. Stefania (2013) states that NGOs are organizations that are neither part of a government nor a normal for-profit business, and are usually founded by ordinary citizens. NGOs may be funded by governments, foundations, businesses, or individuals. They are primarily governed by volunteers, without utilizing any official budget. NGOs encompass a diverse group of organizations involved in a wide range of activities and fields in diverse parts of the world.

Calado et al. (2012) highlight the key role of NGOs in protecting the environment and management. Nomsa, Marietta and Barnabas (2011) set out to identify rural development sustainability factors based on agricultural development projects implemented by NGOs and concluded that optimal human resource development requires the participation in the project and ownership and leadership of the members in the project in order to foster stability in the projects. Therefore, participation contributes to achieving food security, alleviating poverty and reducing the cost of maintaining the environment.

Rouknedin Eftekhari, Sojasi Qeidari and Sadeghloo (2013) set out to introduce the possibility and the manner of utilizing NGOs at the moment, suggesting the type of new NGOs and community-based organizations (CBOs) that can be founded. To achieve this goal, authors undertook extensive research on social and economic issues in the society with the results suggesting the capability and willingness of NGOs and CBOs to participate in planning.

Varmezyari and Hosseini (2009) concluded that, contrary to their expectation, rural people were especially willing to participate, despite the fact that they were mostly indignant. However, in spite of the strong inclination of the rural population for participation, there are no favorable infrastructures for continuing voluntary cooperation in agriculture and other fields. The main causes of this problem are empowerment of local organizations, including local NGOs and CBOs besides NGOs and the Center for Agricultural Extension and Services. To improve rural livelihoods and access to rural and agricultural development, they proposed that local institutions, especially the Agricultural Development and Service Center, be established and supported. Maurel et al. (2007) describes partnership as the process of engagement in volunteer-groups of NGOs, CBOs and local people to plan or make decisions for affairs that affect their livelihoods or environment, and they need to aid each other to achieve collective goals by assuming responsibility.

Research objectives as follows:

General Objectives:

Examining the role of NGOs in Golestan province in achieving sustainable rural development

Specific Goals:

- Investigating the promotional, social, communicative knowledge and facilitating role of NGOs in achieving sustainable rural development
- Identifying the role of NGOs in achieving sustainable rural development
- Identifying barriers to NGOs in obtaining sustainable rural development
- Identifying solutions to improving the status of NGOs in achieving sustainable rural development.

3. Research Methodology

The research method used in this study, given the above mentioned categorization, is applied in terms of its objective. Also, with respect to its extent and degree of control, it is a field study that utilizes a descriptive and non-experimental research method. Here, a descriptive and correlational research method has been employed to achieve the goals. The applied nature of this research is driven by the fact that its results can be used for appropriate planning and policy making in this field. Further, it is classified as a field study in terms of its extent and degree of control as it examines all variables under normal conditions. The population of this research consisted of all experts working in consulting companies in Golestan province. The stratified random sampling method was used for selecting subjects. The cities of Golestan province constituted the strata of our statistical population. The total number of experts working in consulting services companies was 706. According to Krejcie and Morgan's table, 249 experts were selected as the statistical sample (Table 1). To determine the content and facial validity of the instrument, several versions of the questionnaire were given to the professors and experts of agriculture in Golestan and Mazandaran provinces. After receiving the comments and feedbacks of experts, the revisions were made and the final questionnaire was prepared to determine the reliability. To determine the validity of the research tool, a preliminary test was conducted. In this test, a questionnaire was distributed among 30 experts of consulting

companies in Mazandaran province. After data extraction, the Cronbach's alpha coefficient for each variable was computed by SPSS software. Cronbach's alpha coefficient for all variables was α=0.88.

Table 1. Situation of population and sample Separated County
(Source: Research findings, 2017)

County	Number of consulting companies	Number of experts	Number of sample
Gorgan	36	167	59
Gonbad	25	169	60
Aliabad	11	55	19
Agh ghala	9	64	23
Minodashat	7	46	16
Galish	2	12	4
Moraveh tapeh	2	14	5
Kordkoy	6	39	14
Kalaleh	5	37	13
Azadshahr	3	17	6
Gomishan	2	14	5
Bandar torkaman	3	31	11
Ramian	2	18	6
Banadr gaz	4	23	8
Total	117	706	249

4. Research findings

4.1. Roles of NGOs in achieving sustainable rural development

The roles of NGOs in achieving sustainable rural development were measured with 43 items that were scored on a 6-point Likert scale (none= 0, very low = 1, low = 2, average = 3, high = 4, very high = 5). Table 2 shows the mean, standard deviation, coefficient of variation and rank of each item associated with the role of NGOs in obtaining sustainable rural development. Based on the results, the performance of tasks in groups, the use of information and communication technology in the provision of services, the promotion of the skills of producers and users of the agricultural sector, raising the knowledge of producers and beneficiaries of the agricultural sector, technical-vocational agricultural training, training management skills and fostering entrepreneurial businesses and group dynamics had the highest rankings (Table 2).

Table 2. Prioritization of items related to the roles of NGOs in achieving sustainable rural development
(Source: Research findings, 2017)

Items	Mean	SD	Coefficient of variation (%)	Rank
Performance of tasks in groups	3.41	0.77	22.43	1
Use of information and communication technology in the provision of services	3.31	0.75	22.74	2
Promotion of the skills of producers and users of the agricultural sector	3.55	0.82	22.95	3
Raising the knowledge of producers and beneficiaries of the agricultural sector	3.43	0.80	23.41	4
Technical-vocational agricultural training	3.45	0.83	24.15	5
Training management skills and fostering entrepreneurial businesses	3.23	0.79	24.59	6
Group dynamics	3.65	0.90	24.69	7
Need assessment	3.27	0.83	25.38	8
Contact with agricultural researchers	3.38	0.86	25.56	9
Increasing self-esteem among villagers	3.29	0.85	25.72	10
Contact with farmers	3.65	0.96	26.14	11
Quality improvement of production efficiency in utilization units	3.38	0.89	26.17	12
Quantity improvement of production efficiency in utilization units	3.38	0.89	26.34	13
Creating and employing a part of the graduates of the agricultural sector in the field of production	3.24	0.85	26.36	14
Planning	3.17	0.85	26.86	15

Table 2.

Items	Mean	SD	Coefficient of variation (%)	Rank
Participation in the work	3.39	0.93	27.48	16
Attention and use of indigenous knowledge	3.58	1.01	28.11	17
Reduction of costs	3.24	0.92	28.45	18
Use the experiences of other companies	3.11	0.89	28.63	19
Improve the attitude and insight of producers	3.22	0.93	28.76	20
Understanding the situation of the villagers	3.51	1.02	29.14	21
Creating motivation among villagers	3.35	0.98	29.39	22
Perseverance and earnestness in activities	3.37	0.99	29.72	23
Diversification of agricultural and alternative agricultural practices	3.19	0.95	29.82	24
Accelerating the transfer of scientific and research findings to the agricultural sector	3.15	0.94	29.90	25
Income growth and improved livelihoods of farmers	3.22	0.98	30.42	26
Communication and coalitions with other organizations and offices	2.90	0.89	30.64	27
Training on the setting up of entrepreneurial businesses	3.24	0.99	30.69	28
Evaluation	3.20	1.01	31.45	29
Development of local management and leadership	3.26	1.03	31.50	30
Short-term training programs for different groups of farmers	3.10	0.99	32.08	31
Training standards for the production and supply of products and services	3.14	1.02	32.30	32
Training concepts marketing products	2.92	0.94	32.36	33
Efficient use of loans and credits	2.81	0.91	32.52	34
Familiarize with Facilitating Techniques	3.23	1.06	32.93	35
Access to resources and facilities to provide services	3.12	1.05	33.71	36
Importance of knowledge and information of the villagers	3.26	1.10	33.76	37
Getting cheap government facilities	2.51	0.87	34.51	38
To consider of poor villagers	3.27	1.17	35.72	39
Teaching legal issues for companies	3.14	1.14	36.27	40
Conducting a Seminar	2.92	1.09	37.38	41
Developing and strengthening entrepreneurial skills	2.59	0.98	37.85	42
How to use bank facilities	3.08	1.18	38.26	43

6-point Likert scale (none= 0, very low = 1, low = 2, average = 3, high = 4, very high = 5)

4.2. Barriers facing NGOs in achieving sustainable rural development

Obstacles facing NGOs in obtaining sustainable rural development were measured by 13 items that were scored on a 6-point Likert scale (none = 0, very low = 1, low = 2, average = 3, high = 4, very high = 5). Table 3 shows the mean, standard deviation, coefficient of variation and rank of barriers facing NGOs in achieving sustainable rural development from the perspective of experts. Based on the results, farmers' financial incapacity in paying for services, failure to delegate many business activities, the shortage of experienced staff and subsistence agriculture were among the most important barriers facing NGOs in achieving sustainable rural development (Table 3).

Table 3. Prioritization of obstacles of NGOs in achieving sustainable rural development

(Source: Research findings, 2017)

Obstacles	Mean	SD	Coefficient of variation (%)	Rank
Farmers' financial incapacity in paying for services	4.00	0.77	19.29	1
Failure to delegate many business activities	3.91	0.88	22.58	2
Shortage of experienced staff	3.54	0.83	23.50	3
Subsistence agriculture	3.94	0.94	23.86	4
Lack of financial support of government agencies for NGOs	4.02	1.00	24.79	5
Low level of education of villagers	3.74	0.93	24.96	6
Inadequate educational facilities, transportation and infrastructure	3.96	1.00	25.30	7
Lack of investment capability	3.90	1.10	28.16	8

Table 3.

Obstacles	Mean	SD	Coefficient of variation (%)	Rank
Lack of familiarity with the role and functions of NGOs	3.59	1.10	30.71	9
Low culture of participation and teamwork among villagers	3.24	1.03	31.68	10
Parallel to the work of executive agencies	3.69	1.19	32.37	11
Lack of a comprehensive program	3.53	1.19	33.77	12
Farmers' Dependence on public extension	3.43	1.21	35.34	13

6-point Likert scale (none= 0, very low = 1, low = 2, average = 3, high = 4, very high = 5)

4.3. Factor analysis of the role of NGOs in achieving sustainable rural development

A factor analysis is used for data reduction. That is, the research variables are turned into factors and then the extent to which a factor explains variance is demonstrated. The first step in factor analysis is to show whether or not the data is suitable for factor analysis. For this purpose, we use KMO and Bartlett tests. According to the calculations listed in Table 3, data had desirable internal consistency for the application of factor analysis (KMO = 744.44), and the Bartlett statistic was significant at the level of 1%, which confirms factor analysis (Table 4).

It is worth noting that after varimax rotation and due to low factor load (<0.4) some variables were removed due to weal association with other variables. Finally, from a total of 43 variables, n=42 were investigated. It should be noted that based on theoretical model of research, social, economic, educational-promotional, communicative knowledge and facilitating roles were considered.

Table 4. KMO and Bartlett's Test

(Source: Research findings, 2017)

Bartlett's Test	KMO	Factor analysis
5741.8	0.744	Role of NGOs in achieving sustainable rural development
0.000	Sig	

In order to determine the number of factors, it was first examined whether the extracted variables of each factor had desirable fitness. As such, based on the specific values, the variables with a specific value of more than one, given the consideration of the fitness of the variables of each factor, were divided manually into three factors (communicative and economic knowledge, educational-promotional and social and facilitating roles). Overall, 65.20% of the total variance was explained by these three factors (Table 5).

Table 5. Extracted factors with specific value, percentage of variance and cumulative percentage of variance after rotation

(Source: Research findings, 2017)

Factors	Name of factors	Specific value	Percentage of variance	Cumulative percentage of variance
1	Knowledge-communicative and economic	6.86	22.95	22.95
2	Educational-promotional	6.38	21.83	44.78
3	Social and facilitating	5.97	20.42	65.20

The extracted factors along with the specific value of the percentage of variance and the cumulative percent of variance after rotation are described in Table 5. According to the results of the table, the communicate and economic knowledge factors with a specific value of 6.86 had the highest share in explaining variables, followed by the educational-promotional factor with a specific value of 6.38 and the social and facilitating factor with a specific value of 5.97, which together explained about 65.20% of the total variance. Therefore, a high percent of variance is explained by these factors.

Based on the results of Table 6, the first factor explaining the roles of NGOs in achieving sustainable development in rural areas is communicative and economic knowledge factor. The most important variables of this factor are income growth and improved livelihoods of farmers, access to resources and facilities for providing services, diversification of agricultural and alternative agricultural practices, reduction of costs and contact with farmers.

The second factor explaining the roles of NGOs in achieving sustainable rural development was the

educational-promotional factor. The major variables of this factor included short-term training programs for different groups of farmers, training laws and standards of production and supply of goods and services, teaching legal issues for companies and businesses, developing and strengthening entrepreneurial skills, and teaching how to set up entrepreneurship startups.

The third factor explaining the role of NGOs in achieving sustainable rural development was social and facilitating factor. The major variables of third factor consisted of group dynamics, planning, familiarization with facilitating techniques, participation in activities and evaluation (Table 6).

Table 6. Variables related to each factors and the amount of coefficients obtained
(Source: Research findings, 2017)

Factors	Variables	Coefficients
Knowledge-communicative and economic	income growth and improved livelihoods of farmers	0.776
	access to resources and facilities for providing services	0.758
	diversification of agricultural and alternative agricultural practices	0.710
	reduction of costs	0.709
	contact with farmers	0.707
	Use of information and communication technology in the provision of services	0.590
	Getting cheap government facilities	0.590
	Promotion of the skills of producers and users of the agricultural sector	0.587
	Raising the knowledge of producers and beneficiaries of the agricultural sector	0.556
	Quantity improvement of production efficiency in utilization units	0.523
	Communication and coalitions with other organizations and offices	0.518
	Quality improvement of production efficiency in utilization units	0.495
	Contact with agricultural researchers	0.465
	Accelerating the transfer of scientific and research findings to the agricultural sector	0.436
Educational-promotional	Short-term training programs for different groups of farmers	0.750
	Training standards for the production and supply of products and services	0.692
	Teaching legal issues for companies	0.676
	Developing and strengthening entrepreneurial skills	0.581
	Training on the setting up of entrepreneurial businesses	0.572
	Technical-vocational agricultural training	0.563
	Training management skills and fostering entrepreneurial businesses	0.531
	Conducting a Seminar	0.508
	How to use bank facilities	0.501
	Training concepts marketing products	0.418
Social and facilitating	Group dynamics	0.789
	Planning	0.776
	Familiarize with Facilitating Techniques	0.775
	Participation in the work	0.743
	Evaluation	0.734
	Efficient use of loans and credits	0.727
	Importance of knowledge and information of the villagers	0.700
	Perseverance and earnestness in activities	0.665
	Attention and use of indigenous knowledge	0.651
	To consider of poor villagers	0.641
	Use the experiences of other companies	0.590
	Need assessment	0.583
	Development of local management and leadership	0.557
	Understanding the situation of the villagers	0.540
	Increasing self-esteem among villagers	0.496
	Improve the attitude and insight of producers	0.462
	Performance of tasks in groups	0.461
	Creating motivation among villagers	0.443

5. Discussion and Conclusion

Based on the results found, the first factor explaining the role of NGOs in achieving sustainable rural development was communicative and economic knowledge. The main variables of this factor include income increase and improvement of livelihood (0.776), access to resources and facilities for providing services (0.758), diversification of agricultural activities (0.710), and finally, reduction of costs and contact with farmers (0.709). The results are consistent with those reported by Rouknedin Eftekhari et al. (2013), Nomsa et al. (2011), Ritvo (2014), and Stein et al. (2011).

The second factor explaining the role of NGOs in achieving sustainable rural development was educational-promotional factor, the most important variables of which included short-term training programs for different groups of farmers (0.750), teaching the laws and standards for the production and supply of products and services (0.692), teaching legal issues for companies and enterprises (0.676), developing and strengthening entrepreneurial skills, and teaching how to set up entrepreneurial businesses (0.881). The results are consistent with those reported by Maurel et al. (2007), Varmezyari and Hosseini (2009), Ritvo (2014) and Stein et al. (2011).

The third factor explaining the role of NGOs in achieving sustainable rural development was social and facilitating factor. The most important variables of this factor were group dynamics (0.789), planning (0.776), familiarity with facilitating techniques (0.775), participation in activities (0.742) and evaluation (0.724). The results of this study were in agreement with those reported by Maurel et al. (2007), Varmezyari and Hosseini (2009), Rouknedin Eftekhari et al. (2013), Nomsa et al. (2011), Calado et al. (2012), Ritvo (2014) and Stein et al. (2011).

In order to achieve sustainable rural development, it is suggested that NGOs play their roles in increasing income and improving the livelihoods of farmers, access to resources and facilities for providing services, diversification of agricultural activities and alternative agricultural techniques and reducing costs and contact with farmers. It also increases the level of knowledge and skills of producers and beneficiaries in the agricultural sector.

In order to achieve sustainable rural development, it is recommended that NGOs play their roles in organizing short-term training programs for different groups of farmers, teaching laws and standards for the production and supply of products and services, teaching the legal issues of companies and enterprises, developing and strengthening entrepreneurial skills and training how to set up entrepreneurial businesses.

Furthermore, to achieve sustainable rural development, it is suggested that NGOs enhance their roles in group dynamics, planning, familiarization with facilitating techniques, participation in activities and evaluation, along with strengthening the perseverance and diligence of farmers and paying greater attention to indignant farmers and native knowledge of beneficiaries.

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واکاوی نقش سازمان‌های غیر دولتی جهت دست‌یابی به توسعه پایدار روستایی (مطالعهٔ موردی: استان گلستان)

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چکیده مبسوط

۱. مقدمه

امروزه توسعه به عنوان یک فرآیند، مهم‌ترین بحث کشورها، بویژه کشورهای در حال توسعه است. تحقق پیشرفت و توسعه کشورها نیز مستلزم بهره‌گیری از استعداد و توان و حضور فعالانه مردم و مشارکت آنها در مراحل توسعه است؛ به طوریکه توسعه و مشارکت را اموری در هم تنیده دانسته اند، و فرآیند توسعه وقتی با ثبات و موفقیت همراه می‌دانند که با افزایش مشارکت مردم توأم با شد. برنامه‌های انجام شده توسط سازمان‌های غیر دولتی قادر به داشتن سهم مثبت در فرآیند توسعه پایدار در یک سطح معینی می‌باشد. توسعه پایدار روستایی عبارت است از فرآیند کمک به مردم روستایی از طریق اولویت‌بندی نیازهایشان، فعال نمودن آن و سرمایه گذاری در زمینه ایجاد زیر ساخت‌ها و ارائه خدمات اجتماعی،برقراری عدالت و برابری با توجه به ظرفیت های محلی، و رفتار هایی به خلاف همه بی‌عدالتی‌های گذشته و تضمین سلامتی و امنیت آنها. شرکت‌های خدمات مشاوره‌ای به عنوان سازمان‌های غیردولتی نقش بسیار مهمی در توسعه پایدار روستایی دارند. این شرکت ها در گستره مکانی از کشور فعالیت می‌کنند و در استان گلستان ۱۱۷ شرکت خدمات مشاوره‌ای وجود دارد. این تحقیق به دنبال شناسایی عواملی است که نقش شرکت‌های خدمات مشاوره‌ای را در دست‌یابی به توسعه پایدار روستایی پررنگ تر نماید.

۲. مبانی نظری تحقیق

اهمیت سازمان‌های غیر دولتی در کشورهای عقب‌مانده و یا کشورهای رو به توسعه‌ای مانند ایران ، بیش از هر چیز شاید به توانایی سازمان هائی از این دست برای فرهنگ‌سازی در بنیادین‌ترین بخش‌های جامعه مربوط باشد. تجربه تاریخی فرآیند توسعه در کشورهای توسعه یافته و پیشرفته، این امر را روشن ساخته که توسعه روستایی یک ضرورت بنیادی برای توسعه ملی است و می‌بایست در اولویت برنامه‌های توسعه‌ای قرار گیرد. اگر قرار است توسعه در کشورهای جهان سوم نیز انجام گیرد و خود پایدار باشد باید به طور اعم از مناطق روستایی و به طور اخص از بخش کشاورزی آغاز شود، مسائل اساسی فقر گسترده، نابرابری در حال رشد، رشد سریع جمعیت و بیکاری فزاینده تماماً ریشه در رکود و اغلب سیر قهقرایی زندگی اقتصادی مناطق روستایی دارد و بدون توسعه روستایی که به عنوان بخش مهمی از برنامه‌های توسعه کلان در هر کشوری است، توسعه صنعتی یا موفق نخواهد شد و یا اگر موفق شود چنان عدم تعادل‌های شدید داخلی ایجاد خواهد کرد که مشکلات فقر گسترده، نابرابری و بیکاری بیشتر خواهد شد. به طور کلی می‌توان ویژگی‌های زیر را در تعریف سازمان‌های غیردولتی در نظر گرفت: غیر انتفاعی، نداشتن وابستگی سازمان به دولت، دواطلبانه بودن، برخورداری از شخصیت حقوقی، مدیریت دموکراتیک و مشارکتی، خودگردانی و غیر سیاسی.

۳. روش تحقیق

روش تحقیق مورد استفاده در این مطالعه بر اساس تقسیم‌بندی‌های فوق‌الذکر، از لحاظ هدف، کاربردی و از لحاظ میزان و درجه کنترل، میدانی و از لحاظ نحوهٔ جمع‌آوری اطلاعات نیز از نوع تحقیقات توصیفی و غیر تجربی (غیر آزمایشی) می‌باشد، جامعه آماری این پژوهش شامل کلیه کارشناسان شرکت‌های خدمات مشاوره‌ای استان گلستان می باشد. در این تحقیق از روش نمونه گیری تصادفی طبقه‌ای استفاده شده است.

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در این تحقیق، شهرستان های استان گلستان طبقات جامعه آماری ما را تشکیل می دهند. تعداد کل کارشناسان شرکت های خدمات مشاوره ای ۷۰۶ نفر می باشند. بر اساس جدول کرجسی و مورگان ۲۴۹ کارشناس به عنوان نمونه آماری انتخاب گردید. پس از دریافت نظرات و اصلاحات لازمه، اصلاحات ونظرات نهایی اعمال کرده و پرسشنامه مزبور جهت تعیین پایایی آماده شد. برای تعیین اعتبار ابزار تحقیق، اقدام به آزمون مقدماتی کردیم. در این آزمون، پرسشنامه مذکور به ۳۰ کارشناس شرکت های خدمات مشاوره ای در استان گلستان، داده شد. پس از استخراج داده ها ضریب کرونباخ آلفا برای هر یک از متغیرها توسط نرم افزار SPSS گرفته شد. ضریب کرونباخ آلفا برای تمام متغیرها ۰/۸۸ محاسبه شد.

۴. یافته های تحقیق

بر اساس یافته ها، اجرای کارها به صورت گروهی، بهره برداری از فناوری اطلاعات وارتباطات درارائه خدمات، ارتقاء سطح مهارت تولیدکنندگان و بهره‌برداران بخش کشاورزی، ارتقاء سطح دانش تولیدکنندگان و بهره‌برداران بخش کشاورزی، آموزش فنی – حرفه‌ای کشاورزی، آموزش مهارت های مدیریت و اداره کسب و کارهای کارآفرینانه و پویایی گروهی بالاترین نقش‌های سازمان‌های غیر دولتی در دست‌یابی به توسعه پایدار روستایی را به خود اختصاص دادند. بر اساس یافته‌ها، ضعف مالی کشاورزان جهت پرداخت هزینه خدمات، عدم واگذاری بسیاری از فعالیت‌های تصدی‌گری، کمبود پرسنل مجرب و کشاورزی معیشتی وخرده مالکی از مهمترین موانع دست‌یابی سازمان‌های غیردولتی به توسعه پایدار روستایی می باشند.

یافته‌ها نشان داد که عامل دانشی- ارتباطی و اقتصادی با مقدار ویژه ۶/۸۶ بیشترین سهم را در تبیین متغیرها دارد، پس از آن عامل آموزشی- ترویجی با مقدار ویژه ۶/۳۸ و عامل اجتماعی و تسهیلگری با مقدار ویژه ۵/۹۷ قرار دارند که در مجموع حدود ۶۵/۲۰ درصد از کل واریانس را تبیین می نمایند که نشان از درصد بالای واریانس تبیین شده توسط این عوامل می باشد.

۵. بحث و نتیجه‌گیری

بر اساس نتایج، اولین عامل تبیین‌کننده نقش‌های سازمان‌های غیر دولتی در دست‌یابی به توسعه پایدار روستایی تحت عنوان دانشی- ارتباطی و اقتصادی نام‌گذاری شد که مهمترین متغیرهای این عامل به ترتیب شامل افزایش درآمد و بهبود سطح زندگی کشاورزان(۰/۷۷۶)، دسترسی به منابع وامکانات برای ارائه خدمات(۰/۷۵۸)، متنوع‌سازی فعالیت‌های کشاورزی و کشاورزی جایگزین(۰/۷۱۰)، کاهش هزینه‌ها و تماس با کشاورزان(۰/۷۰۹) می باشند. دومین عامل تبیین کننده نقش‌های سازمان‌های غیر دولتی در دست‌یابی به توسعه پایدار روستایی تحت عنوان عامل آموزشی- ترویجی نام گذاری شد که مهم‌ترین متغیرهای این عامل به ترتیب شامل برنامه های کوتاه مدت آموزش برای گروه های مختلف کشاورزان(۰/۷۵۰)، آموزش قوانین و استانداردهای تولید و عرضه محصولات و خدمات(۰/۶۹۲)، آموزش مسائل حقوقی شرکت‌ها و بنگاه‌های اقتصادی(۰/۶۷۶)، توسعه و تقویت خصوصیات و مهارت‌های کارآفرینانه و آموزش راه‌اندازی کسب و کارهای کارآفرینانه(۰/۵۸۱) می باشند. سومین عامل تبیین‌کننده نقش‌های سازمان‌های غیر دولتی در دست‌یابی به توسعه پایدار روستایی تحت عنوان عامل اجتماعی و تسهیل‌گری نام‌گذاری شد که مهم‌ترین متغیرهای این عامل به ترتیب شامل پویایی گروهی(۰/۷۸۹)، برنامه ریزی(۰/۷۷۶)، آشنایی با تکنیک های تسهیل‌گری(۰/۷۷۵)، مشارکت در کارها(۰/۷۴۲) و ارزشیابی(۰/۷۲۴) می باشند.

کلمات کلیدی: سازمان‌های غیر دولتی، توسعه پایدار روستایی، کارشناسان شرکت‌های خدمات مشاوره‌ای، استان گلستان.

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Dynamic Poverty Analysis in Rural Areas of Iran

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Abstract

Purpose- With increasing governmental revenue and budgets, their responsibility for community development and growth has increased. The first step to policy-making in order to attain the desired welfare levels is identify and measure the related indicators such as poverty in the best possible way. In Iran, most of conducted poverty surveys due to the lack of panel data cannot decompose households to transient and chronic poverty group. In this situation, the Synthetic panel data is a useful and new approach to estimates of poverty mobility in countries with only cross-sectional statistics. Therefore, based on this method we calculated the poverty dynamic of rural areas in Iran.

Design/methodology/approach- The present study, initially calculates the absolute poverty line of rural areas in Iran in 2012, 2015 and 2016, and then calculates the status of mobility of poverty during those years based on Synthetic panel data approach.

Finding- The results of the estimation of probability functions for studying poverty dynamics indicated that in rural areas of Iran there was a kind of state dependence in poverty. According to the results, there is a dependency state in the rural poverty situation, where more than 86% of the households who were poor in 2016 were also poor (non-poor) during the first period (2012 or 2015) and only with the probability of less than 14% of the poor (non-poor) households during the past years was in the non-poor (poor) state.

Key word- Poverty measurement, Dynamic poverty, Synthetic panel data, Rural areas, Iran.
Paper type- Scientific & Research.

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1. Introduction

According to the concept of "welfare state", the state plays a key role in the protection and promotion of the economic and social well-being of its citizens based on policies and their implementations. In this regard, the control of poverty in society and its Reduction Strategies, as well as the protection of vulnerable groups (those at the highest risk of poverty) can be in the area of governments' responsibilities. Hence, measuring and identifying poverty is one of the essential parts of knowledge for developing community-based programs and policies for poverty eradication, because, as Ravallion (1998) states, a credible measure of poverty can be a powerful tool for focusing policymakers' attention on the living conditions of the poor people. The purpose of presenting a poverty profile is to determine the main facts of poverty (such as inequality) and its sustainability, and then examine the pattern of poverty based on geography and household characteristics. Other reasons for measuring poverty are (a) to be able to predict and evaluate the effects of policies and programs designed to help the poor, and (b) to assess the effectiveness of institutions aimed at helping the poor (Haughton & Khandker, 2009).

After Adam Smith's and Amartya Sen's definitions of poverty, extensive studies have been conducted on the identification and measurement of poverty. Most of them have used a static method for measurement. In these studies, the poverty line and aggregate poverty measures are assessed for different communities in a given year and the characteristics of people are identified, but sustainability and dynamics of poverty cannot be found in these studies. There are fewer studies on dynamics of poverty, for example: Whelan et al (2002), Jenkins and Rigg (2001), Jenkins (2000), Jarvis and Jenkins (1997). These studies are based on panel data and show that poverty is more widespread than suggested by cross-sectional studies, since the underlying process is the result of the accumulation and attrition of household resources (Shen et al, 2006). Salehi-Isfahani and Majbouri (2010) examined poverty and inequality in Iran in a dynamic context using a 4-year panel data, collected during 1992–1995. They showed short-term income mobility was relatively high, which helped reduce high inequality. They found that chronic poverty was a more serious problem in urban than rural areas, while transient poverty was geographically more uniformly distributed. Goshu (2013) investigated the dynamics and determinants of poverty and vulnerability in rural areas of Ethiopia using panel data of households between 2004 and 2009. They showed that depth and severity of poverty were reduced, but had increasing incidence. While many households were escaping from poverty, others were descending into the poverty trap, indicating reduction of relative poverty among the poor and the non-poor. Determinants of poverty status were household size, livestock holding, farming occupation, life status, social network, regional dummies, and other exogenous shocks. Unlike static poverty studies, dynamic poverty studies do not have a long history especially in developing countries. One reason is the lack of actual panel data in these countries. To overcome this limitation, methods such as pseudo-panel data or synthetic panel data have been presented to measure the poverty dynamics in countries with no cost/income panel data for households. (For more studying, see: Banks, Richard and Ager., 2001; Mckenzie, 2004; Pencavel, 2007). Since cross-section samples are typically refreshed each time that the surveys are conducted, synthetic panels are possibly less exposed to the concerns about measurement errors that are often found at actual panel data. Hence, pseudo-panel data is an interesting field of research**.** Dang and Lanjouw (2013) proposed a method to construct synthetic panel data from cross sections which can provide point estimates of poverty mobility. In contrast to traditional pseudo-panel methods that require multiple rounds of cross-sectional data to study poverty at the cohort level, the proposed method can be applied to settings with as few as two survey rounds and also permits investigation at the more disaggregated household level. Dang et al. (2014a) used synthetic panel data from two rounds of cross-section household surveys in 2005 and 2011 to investigate poverty dynamics in Senegal. More than half the population experienced changes in its poverty status and more than two-thirds of the extreme (food) poor move up one or two welfare categories. According to them, factors such as rural residence, disability, exposure to some kind of natural disaster, and informality in the labor market are associated with a heightened risk of falling into poverty. In another study, Dang et al. (2014b)

proposed both parametric and non-parametric approaches to construct synthetic panels at the household level from two rounds of cross sections with rather parsimonious assumptions, and tested data sets for Vietnam and Indonesia.

In Iran, until 2012 there was also no actual panel data that could track individuals' characteristics over time and form the basis of income and poverty dynamics studies. Since 2013 onwards, there have been actual panel data sets for household income and expenditure for two consecutive years of 2013 and 2014, but this short interval cannot show the actual dynamics of poverty. According to Walker and Ryan (1990), at least a 7 or 8-year interval is necessary for proper measurement. The studies that conducted to construct pseudo-panel data in Iran are based on pseudo panels developed by Deaton (1985) from multiple rounds of cross-sectional data. However, pseudo-panel data requires a large number of repeated cross-sectional data (Bourguignon, Guo and ki 2004). The existing pseudo-panel methods may be of limited appeal to policy makers interested in the mobility of certain population groups, or to economists concerned with mobility due to idiosyncratic shocks to income or consumption (Dang et al. 2014b). Thus, in the absence of actual panel data, synthetic panel data derived from cross-sectional household data can be used to study poverty dynamics in Iran. Considering the importance of being informed of poverty dynamics in Iran, and its application in planning and policy making on improving community welfare, the aim of this study is to measure poverty dynamics of rural areas of Iran using Dang and Lanjouw (2013)'s presented synthetic panel data.

2. Research Theoretical Literature

In order to effectively reduce poverty, it is necessary to identify the factors leading to transitions into and out of poverty line. To do so, we require panel data, especially at the household or individual level. On the other hand, for various reasons such as the high cost of collecting panel data, it is not possible to provide panel data for many developing countries, and instead it is common to collect cross-sectional data. To overcome this limitation, Dang and Lanjouw (2013) developed a method using panel data based on repeated cross-sectional data. They generalized the method of Dang et al. (2014b) by (a) introducing a method to approximate the appropriate correlation term and its theoretical upper bound using each country's own cross sectional surveys, and (b) developing construction of the synthetic panels to settings where more than two rounds of data are available, and (c) extending the investigation of household transitions into and out of poverty to a much more general setup of household movements among different consumption groups (Dang & Lanjouw, 2013). In this section, first we present a brief review of the method described by Dang et al. (2014b) and then a brief review of the modified method developed by Dang and Lanjouw (2013).

2.1. Theoretical bound estimation on poverty mobility

Dang et al. (2014b) considered two cross-sectional survey periods *j* (j=1 or 2). Both are random samples of households *i* (i=1, …, N). If *x* shows household characteristics observed in period j, and y presents household consumption or income in period *j*, for prediction of household consumption (or income) on household characteristics for periods 1 and 2, we can write:

$$y_{i1} = \beta_1^{'} x_{i1} + \varepsilon_{i1}$$

$$y_{i2} = \beta_2^{'} x_{i2} + \varepsilon_{i2} \quad (1)$$

x_{ij} is the vector of household characteristics which can include time-invariant variables such as sex, ethnicity, religion, language, place of birth, and parental education as well as deterministic characteristics such as age. The percentage of households that are poor in the first period but non-poor in the second period can be defined as below:

$$P(y_{i1} < z_1,\ y_{i2} > z_2) \quad (2)$$

Furthermore, the percentage of poor households in the first period that escape poverty in the second period can be defined as:

$$P(y_{i2} > z_2 \,|\, y_{i1} < z_1) \quad (3)$$

In the above equations, Z_1 and Z_2 represent the poverty line in periods 1 and 2, respectively. In case of availability of panel data, we can estimate the quantities in equations 2 and 3; otherwise, we have to use synthetic panels. By assuming that the underlying population being sampled in periods 1 and 2 are the same (Assumption 1), we can rely on the time-invariant variables x_{ij} that are collected in both survey periods to predict the consumptions in period 1 for households interviewed in period 2,

and vice versa. Also, we can assume that error terms ε_{i1} and ε_{i2} are completely independent of each other (have bivariate normal distribution) with correlation coefficient (ρ) and standard deviations σi_1 and σi_2 (Assumption 2). The lower bound and upper bound estimates of poverty mobility can be determined by obtaining appropriate values for ρ. If (is known, we can estimate quantities in Equation 2 as:

$$P(y_{i1} < z_1 and\ y_{i2} > z_2) = \Phi_2\left(\frac{z_1 - \beta_1' x_{i2}}{\sigma_{\varepsilon_1}}, -\frac{z_2 - \beta_2' x_{i2}}{\sigma_{\varepsilon_2}}, -\rho\right) \quad (4)$$

Where, $\Phi_2(.)$ represents the standard bivariate normal cumulative distribution function. Parameters β_j and σ_{ε_j} can be estimated using Equation 1, and (can be estimated based on Cohort-aggregated household consumption data. Equation 4 indicates that a lower (higher) value of (means a higher (lower) probability of being poor in the first period but non-poor in the second period (Dang & Lanjouw, 2013). Since (is mostly unknown, Dang et al. (2014b) suggested that one can start by assuming that (is either 0 or 1.

2.2. Theoretical (estimation)

Dang and Lanjouw (2013) indicated some drawbacks in the method presented by Dang et al. (2014b) for identifying bound estimates on poverty dynamics. For example, some countries with actual panel data may need a more reasonable empirical range of (values. Also, (may be different for different household welfare outcomes. In this regard, they offered following propositions to estimate (based on a country's own cross-sectional data:

Proposition 1- Approximate estimation: Assume household consumption follows a simple linear dynamic data-generating process given by $y_{i2} = \alpha + \delta' y_{i1} + \eta_{i2}$ **(*)** where η_{i2} is the random error term. Also assume that the sample size of each household survey round is large enough, the number of cohorts (C) constructed from the survey data is fixed, and the cohort dummy variables satisfy the relevance and exogeneity criteria for instrumental variables for y_{i1} in **(*)**. The simple correlation coefficient $\rho_{y_{i1}y_{i2}}$ can then be approximated with the synthetic panel cohort-level simple correlation coefficient $\rho_{y_{c1}y_{c2}}$ where c indexes the cohorts constructed from the household survey data." (Dang & Lanjouw, 2013, p.9)

In the absence of true panel data, we do not observe y_{i1} for the same household with household consumption in period 2, but we can predict it by projecting household consumption in period 1 on the cohort dummy variables. Cohorts can be constructed from age or combination of age and other time-invariant characteristics as long as the cell size for each cohort is large enough (Dang & Lanjouw, 2013, p.11).

Proposition 2- Point estimation: If R_j^2 (j=1 and 2) represents the coefficients of determination obtained from estimating Equation 1, and x_i shows the vector of household time-invariant characteristics, the partial correlation coefficient (can be estimated by:

$$\rho = \frac{\rho_{y_{i1}y_{i2}}\sqrt{var(y_{i1})\,var(y_{i2})} - \beta_1' var(x_i)\beta_2}{\sigma_{\varepsilon_1}\sigma_{\varepsilon_2}} \quad (5)$$

Or

$$\rho = \frac{\rho_{y_{i1}y_{i2}} - \sqrt{R_1^2 R_2^2}}{\sqrt{1-R_1^2}\sqrt{1-R_2^2}} \ (\text{if } \beta_1 \approx \beta_2) \quad (6)$$

If the estimated parameters in Equation 1 for two periods be close to each other, the partial correlation coefficient for household consumption can be interpreted as the simple correlation coefficient purged of its multiple correlation with household (time-invariant) characteristics in the two survey rounds, and then reweighted by the shares of the unexplained predicted errors. (Dang & Lanjouw, 2013)

2.3. Poverty mobility for three or more survey periods

Dang and Lanjouw (2013) generalized the general setting where there are three or even more rounds of survey data. We assume there are *k* periods. Household consumption levels can be explained by household characteristics for survey round by following equations (j=1,…, k):

$$y_{ij} = \beta_j' x_{ij} + \varepsilon_{ij} \quad (7)$$

$$P(y_{i1} \sim z_1 and y_{i2} \sim z_2, \ldots, y_{ik} \sim z_k) = \Phi_k\left(d_1\frac{z_1 - \beta_1' x_{ij}}{\sigma_{\varepsilon_{i1}}}, d_2\frac{z_2 - \beta_2' x_{ij}}{\sigma_{\varepsilon_{i2}}}, \ldots, d_k\frac{z_k - \beta_k' x_{ij}}{\sigma_{\varepsilon_{ik}}}, \sum\rho\right) \quad (8)$$

Where, Zj is the poverty line in period j, and $\Phi_k(.)$ shows k-variate normal cumulative distribution

function. For more discussion, see Dang and Lanjouw (2013).

3. Research Methodology

In order to analyze the poverty dynamics of rural areas in Iran using Synthetic panel data, the expenditure/income cross-sectional survey data for the years 2012, 2015, and 2016 were used. These data includes expenditure/income characteristics of households as well as other socio-economic characteristics such as age, gender, number of students, number of household employees, etc. collected each year by the Iranian Statistics Center for about 19,300 households in rural areas. The base year of this study (i.e. second period or X_{i2}) was 2016 and the age of selected households in this year was between 30 and 60 years (according to the age of the household head). For other years, the age was adjusted relative to the base year.

Poverty line defines the level of consumption (or income) needed for a household to escape poverty. The cost of basic needs (CBN) approach was applied to measure absolute poverty line during the studied years. In this approach, the basket of goods consists of food and non-food items; thus, the cost to meet basic needs is generally measured in two steps. At first, the minimum food expenditure required to live in a healthy situation, known as the food poverty line, is calculated. Then, the minimum nonfood expenditure for measuring nonfood poverty line is calculated. The consumption aggregate is finally obtained adding up these expenditures on food and non food items.

The food poverty line can be calculated based on the food energy intake method which shows expenditure (or income) per capita against food consumption (in calories per person per day) to determine the expenditure (or income) level at which a household acquires enough food. According to the Iranian Ministry of Health Department for Improving Nutrition, the average of energy consumption in 2012 was 2573 kcal per day. We used the Orshansky method to add the minimum nonfood expenditure to the food poverty line which is based on Engel's Law. In this method, the average ratio of household food expenditure to total household expenditures is calculated and then, multiplicative inverse of fraction is multiplied by the food poverty line to determine the total poverty line. The calculation of poverty line and the correlation term (was done in STATA software.

In analyzing household characteristics, there were different sizes of households that made it difficult to compare the welfare of households. Considering the saving aspect of collective consumption, household expenditure does not always increase as the household size increases. In order to solve this problem, using the equivalent scales, we can relate the expenditure of households with different sizes to each other. In this study, we used the equivalents proposed by Iranian Ministry of Health Department for Improving Nutrition to assign an appropriate equivalent scale related to the gender and age of household members. Equivalents in Table 1 are similar to those presented by Dercon and Krishnan (1998).

Table 1. Adult equivalence scales

(Source: Iranian Ministry of Health Department for Improving Nutrition, 2018)

Years of age	Men	Women
0-1	0.24	0.22
1-2	0.33	0.30
2-3	0.39	0.36
4-5	0.47	0.43
6-11	0.66	0.61
12-17	1.05	0.84
18-29	1.04	0.79
30-60	1.00	0.76
60 plus	0.81	0.69

After calculating the poverty line, Dang and Lanjouw (2013)'s proposed technique mentioned in Section 2 was used to assess the poverty mobility in rural areas of Iran. Gender, age, education level of household head, and residential area were considered as explanatory variables (household characteristics) for the estimation of Equation 1. The monthly poverty line

and poverty indicators of the rural households per adult equivalence for the years 2012, 2015, and 2016 are presented in Table 2. As can be seen from this table, the absolute poverty line in rural areas has risen from 1,725,800 Rials in 2012 to 29,776,575 Rials in 2016. Moreover, poverty indices show that the poor population of rural areas in Iran has increased from 42.7% to 48.1% from 2012 to 2016. Also, the poverty gap and severity of poverty have increased among surveyed households.

Table 2. Absolute poverty line (Rials) per adult equivalence and poverty indices (percentages) of the rural households

Index	2012	2015	2016
Absolut poverty line	1725800	2726181	2976757
Headcount Ratio	42.7	45.8	48.1
Poverty Gap	13.2	15.0	15.9
Poverty Severity	5.6	6.7	7.1

For examining the poverty mobility, since expenditure /income of about 49% of households was the same for two consecutive years of 2015 and 2016, first, the poverty mobility was estimated using a synthetic panel data only for this group of households. This was done to compare the actual panels and synthetic panels obtained in this with those presented by Dang and Lanjouw (2013) in estimating poverty mobility.

4. Research Findings

Table 3 presents the values of obtained correlation coefficient ($\rho_{yi\,2015 yi\,2016}$). Partial correlation coefficient (ρ) of residues of household consumption regression on explanatory variables (gender, age, education level of household head, and region) was estimated by:

$$y_{ij} = \beta_0 + \beta_1 gen_{ij} + \beta_2 age_{ij} + \beta_3 edu_{ij} + \beta_4 reg_{ij} + \varepsilon_{i1} \quad (9)$$

For households living in Tehran, *reg* (region) was considered to be 1 and for other cities as 0. From Table 3, we can say that the difference in correlation coefficient of household consumption in two 2015 and 2016 using actual panels and synthetic panels is 0.7%. This difference for the partial correlation coefficient (ρ) of regression residues is 0.07%. In the study of Dang and Lanjouw (2013), the estimated cohort-level simple correlation coefficient for Bosnia-Herzegovina, Lao PDR, Peru, Vietnam, and United States was between 0.01 and 0.18 with a relative difference of 2-18%. This indicates that the synthetic panel data has no considerable difference with actual panel data in Iran, and this approach can be used to analyze poverty mobility based on cross-sectional data in the absence of actual panel data.

Table 3. Estimated values of (using actual panel data and synthetic panel data for years 2015 and 2016

Coefficient	Actual panels	Synthetic panels	Relative difference (%)
$\rho_{yi\,15 yi\,16}$	0.9862	0.9931	% 0.70
ρ	0.9714	0.9721	% 0.07

Values of estimated correlation coefficient for the years 2012 and 2016 are presented in Table 4. By comparing these results with those shown in Table 3, it can be said that the (values are less than ρ_{yijyij} values. This confirms the compatibility of the estimate with theoretical foundations. In order to study the household transitions into and out of poverty line in 2015 and 2016, both actual panels and synthetic panels were used, but for estimating poverty mobility in 2012 and 2016, only the synthetic panel method was employed.

Table 4. Estimated values of (based on synthetic panel data for years 2012 and 2016

Coefficient	$\rho_{yi12\,yi16}$	ρ
Actual panels	0.939	0.9195

Table 5. Poverty dynamics (Joint probabilities) based on actual and synthetic panel data for three years

First Period and Second Period	2015-2016		2012-2016
	Actual panels	Synthetic Panels	Synthetic Panels
Poor, Poor	46.2 (0.110)*	43.7 (0.110)	43.6 (0.105)
Poor, Nonpoor	3.79 (0.012)	6.21 (0.009)	6.39 (0.02)
Nonpoor, Poor	3.78 (0.011)	6.20 (0.008)	6.35 (0.018)
Nonpoor, Nonpoor	42.26 (0.109)	43.8 (0.108)	43.6 (0.105)

*Numbers in parentheses are standard errors

By using actual panel data, 46.2%, 3.79%, 3.78% and 46.26% and by using synthetic panel data, 43.7%, 6.21%, 6.20%, and 43.8% of rural households were poor in the two periods of 2015 and 2016, poor in 2015 but non-poor in 2016, non-poor in 2015 but poor in 2016, and non-poor in both periods, respectively. In 2012 and 2016, 43.6% of rural households were poor in two periods, 6.39% poor in 2012 but non-poor in 2016, 6.35% non-poor in 2012 but poor in 2016, and 43.6% poor in both years (Table 5).

As the educational level of the household head increases, the rural households' probability of being poor decreases in the two periods of 2012-2016, and 2015-2016, while their probability of being non-poor increases (Fig. 1b,c). Moreover, the probability of a transition from being non-poor to being poor in two periods due to the increase in educational level of household head did not show a regular trend (Fig.1a). The only important thing was the low probability of exiting poverty (<0.1). In 2012-2016, with increased educational level, the chance of entering poverty regularly reduced in the households with both male and female heads (Fig.1d).

Table 6 presents conditional probabilities of poverty status by two methods in three years. The probability of being poor in 2016, given that they were poor in 2015, is 92.39% using actual panels and 87.12% using synthetic panels. For the period 2012-2016, this probability is 86.83% using synthetic panels. The proportion of the households that were poor in 2016 given that they were non-poor in 2015 is 7.60% using actual panels and 12.88% using synthetic panels.This proportion for the period 2012-2016 is 13.16% using synthetic panels. Moreover, the proportion of the households who were non-poor in 2016 given that they were poor in 2015 is 7.58% using actual panels and 12.87% using synthetic panels. This proportion for the period 2012-2016 was 13.18% using synthetic panels. Also, by using these two methods respectively, there are probabilities of 92.41 and 87.13% that the households were non-poor in 2016, given that they were poor in 2015. This probability for the period 2012-2016 using synthetic panels is 86.82%.

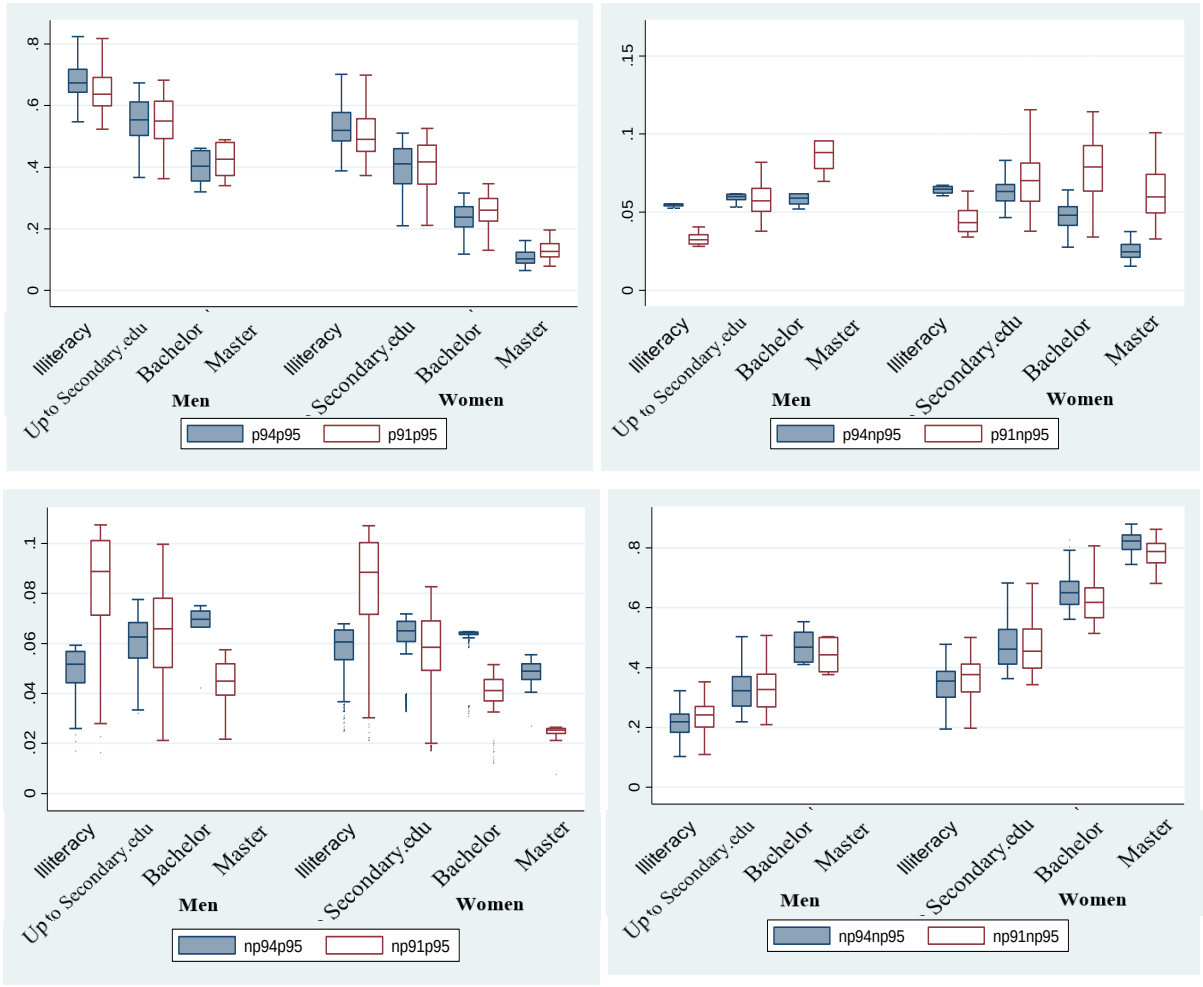

Figure 1. Joint probability (%) of poverty in households categorized by gender and education of household head (p=poor, np=non-poor)

Table 6. Poverty dynamics (conditional probabilities) based on actual and synthetic panels for years 2012, 2015, and 2016

First Period--> Second Period	2015-2016		2012-2016
	Actual panels	Synthetic Panels	Synthetic Panels
Poor--> Poor	92.39 (0.02)*	87.12 (0.025)	86.83 (0.041)
Poor--> Nonpoor	7.60 (0.02)	12.88 (0.025)	13.16 (0.041)
Nonpoor--> Poor	7.58 (0.016)	12.87 (0.024)	13.18 (0.046)
Nonpoor--> Nonpoor	92.41 (0.016)	(87.13) (0.024)	86.82 (0.046)

*Numbers in parentheses are standard errors

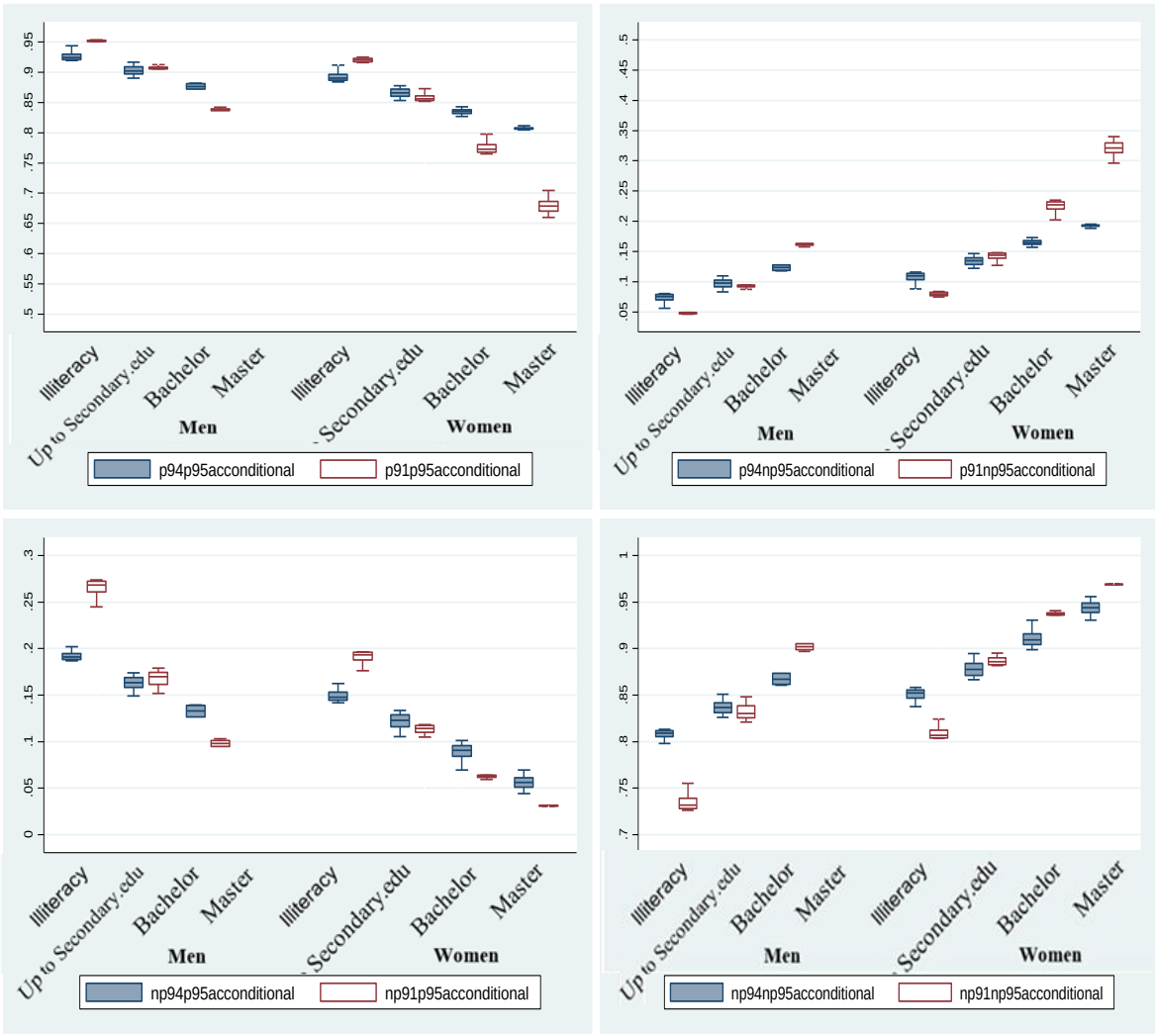

Figure 2. Comparing conditional probabilities in households categorized by gender and education of household head (p=poor, np=non-poor)

Figure 2 plots conditional probabilities of poverty for the households with different genders and educational levels of household heads. As can be seen, the probability of change in poverty status provided that the status remains unchanged in the base year, had almost the same trends in female-headed and male-headed households. With an increase in the educational level of the household head, the probability of being poor in 2016 provided that the households were poor in 2012 and 2015, decreased. However, the probability of being non-poor in 2016 provided that the households were poor in 2012 and 2015, increased. Furthermore, the probability of being poor in 2016 provided that they were non-poor in 2012 and 2015, increased as the educational level of the household head increased. The results in Figure 2 also show the increasing likelihood of remaining non-poor in rural areas in 2016 if households were non-poor in 2012 and 2015.

5. Discussion and Conclusion

In this study, poverty dynamics of rural areas of Iran was investigated for the years 2012, 2015, and 2016. The findings revealed that the absolute poverty line in rural areas has risen from 2012 to 2016. Since the survey of household income in Iran is conducted using cross-sectional data, actual panel data cannot be used for dynamic analysis of the welfare and poverty status of households. For such studies, we need to use other methods that make estimates close to reality. In this study we used the method presented by Dang and Lanjouw (2013). To check the accuracy of the method, first poverty dynamics for the years 2015 and 2016 were estimated by using both actual panels and

synthetic panels. In the first method (actual panels), only joint households whose heads had age range of 30- 60 years in 2016, and 29-59 years in 2015 were selected for the study. In the second method (synthetic panels), analysis was with respect to the age range of household head and according to the techniques provided by Dang and Lanjouw (2013). In this regard, based on Deaton (1985)'s method, households were divided into 31 age groups and the partial correlation coefficient of the residuals was calculated. Comparing estimates using the actual panels and the synthetic panels, the relative difference in 2015 and 2016 was only 0.7%. Also, the maximum values that the partial correlation of the residuals can have were equal to the simple correlation for household consumption. Hence, we concluded that our results are consistent with Dang and Lanjouw's theory.

The results of the estimation of probability functions for studying poverty dynamics indicated that in rural areas of Iran there was a kind of state dependence in poverty. During the studied years, more than 86% of the households that were poor (non-poor) in 2016, were also poor (non-poor) during the first period (2012 or 2015). Only less than 14% of the poor (non-poor) households in 2016 were likely to be non-poor (poor) in the first period. One of the reasons for the state dependence in poverty is that the mood of those who are in the poverty line can be negatively affected. Experienced poverty can lead to a negative state, loss of motivation and even devaluation resulting in less chance of finding jobs for the unemployed, or finding low-quality jobs or unstable businesses which increase the risk of poverty. Another reason is that being poor can be related to negative motivations which can make the unemployed people feel that it is worthless to find a job, or even make them keep their low-wage job. Considering the heterogeneity of welfare and income levels of households in the provinces of Iran, it is expected that the sustainability of poverty be different and requires more studies in this area.

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تحلیل پویایی فقر در مناطق روستایی ایران

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چکیده مبسوط

۱- مقدمه

اندازه‌گیری و شناسایی فقر از ملزومات و جزو لاینفک دانش جهت تدوین برنامه‌ها و سیاست‌های فقرزدایی جامعه است. بعد از ارائه تعاریف آدام اسمیت و آمارتیا سن از فقر مطالعات گسترده‌ای در حوزه شناسایی و اندازه‌گیری فقر ایستا صورت گرفت؛ در مقابل آن بررسی پویایی فقر بویژه در کشورهای در حال توسعه از قدمت طولانی برخوردار نیست. یکی از دلایل این امر نبود داده‌های تابلویی قابل اتکا در این جوامع است. برای غلبه بر این نقصان، دنگ و همکاران در سال ۲۰۱۳ رویکرد داده‌های تابلویی ترکیبی را برای مطالعات فقر با استفاده از داده‌های مقطعی ارائه دادند. با توجه به اهمیت شناخت و آگاهی از پویایی‌های فقر کشور و به‌کارگیری آن در برنامه‌ریزی‌ها و سیاست‌گذاری‌های بهبود رفاه جامعه، بررسی پویایی‌های فقر مناطق روستایی کشور به روش داده‌های تابلویی ترکیبی دنگ و همکاران (۲۰۱۳) محور پژوهش حاضر خواهد بود.

۲- مبانی نظری تحقیق

پویایی فقر به فرآیندهای تغییرات اجتماعی اطلاق می‌شود که منجر به افزایش، کاهش یا تداوم فقر می‌شوند. پویایی فقر دو بعد اصلی دارد: فرآیندهای بلندمدت که به فقر مزمن مربوط می‌شوند و فرآیندهای کوتاه‌مدت که باعث ایجاد فقر گذرا می‌گردند. به‌طورکلی پویایی فقر جریان ورود و خروج خانوارها از فقر را بررسی می‌کند و با ذخیره فقر متفاوت است. لذا هدف اصلی آن نشان دادن تغییر و تحول وضعیت افرادی است که فقر را تجربه کرده‌اند.

نتیجه کاربردی بررسی پویایی فقر رسیدن به گروه‌های اجتماعی هدف برای سیاست‌گذاری‌های اجتماعی و اقتصادی و بررسی و اصلاح در سیاست‌های کلان است. از این حیث هنگامی که در جامعه فقر گذرا وجود دارد باید سیاست‌های محافظت از گروه غیر فقیر و نیز اقشار آسیب‌پذیر از ورود به دایره فقر اولویت باشد در حالیکه در شرایط فقر مزمن باید مداخلات ساختاری بلندمدت مانند سرمایه‌گذاری در سرمایه انسانی و بهبود زیرساخت‌ها مورد توجه قرار گیرد (دنگ و همکاران، ۲۰۱۴).

۳- روش تحقیق

به منظور تحلیل پویایی‌های فقر مناطق روستایی کشور از داده‌های پیمایش هزینه – درآمد خانوار برای سال‌های ۱۳۹۱، ۱۳۹۴ و ۱۳۹۵ استفاده شده است. سال پایه در این پژوهش سال ۱۳۹۵ بوده و خانوارهای انتخاب شده بر اساس سن سرپرست خانوار در این سال بین ۳۰ تا ۶۰ سال است و برای دیگر سال‌ها نسبت به سال پایه تعدیل شد. با استفاده از رویکرد اورشانسکی محاسبه خط فقر مطلق محاسبه و به منظور بررسی میزان تحرک فقر در مناطق روستایی کشور از رویکرد دنگ و همکاران (۲۰۱۳) بهره گرفته شده است. جنسیت، سن، میزان تحصیلات سرپرست خانوار و منطقه محل سکونت به عنوان متغیرهای توضیحی در نظر گرفته شده است.

۴- یافته‌های تحقیق

خط فقر ماهانه و شاخص‌های فقر برای خانوارهای روستایی کشور بر حسب فرد معادل بالغ در سال‌های ۱۳۹۱، ۱۳۹۴ و ۱۳۹۵ که به روش خط فقر مطلق (با رویکرد اورشانسکی) محاسبه شد به ترتیب

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۱۷۲۵۸۰۰، ۲۷۲۶۱۸۱ و ۲۹۷۶۷۵۷ ریال است. برای بررسی میزان تحرک فقر با استفاده از معادله (۱) استفاده شد.

$$y_{ij} = \beta_0 + \beta_1 gen_{ij} + \beta_2 age_{ij} + \beta_3 adu_{ij} + \beta_4 reg_{ij} + \varepsilon_{i1}$$

که در آن i نماد خانوار، j نمایانگر سال مورد مطالعه، gen جنسیت سرپرست خانوار، age سن سرپرست خانوار، adu میزان تحصیلات سرپرست خانوار و reg نشان‌دهنده محل سکونت خانوار است که برای خانوارهای ساکن تهران عدد ۱ و برای دیگر مناطق کشور عدد ۰ لحاظ شده است. نتایج نشان می‌دهد بر اساس رویکرد داده‌های تابلویی واقعی بیش از ۴۶ درصدخانوارهای روستایی در سال‌های ۱۳۹۴ و ۱۳۹۵ در وضعیت فقر ثابتی هستند. همچنین، در سال‌های ۱۳۹۱ و ۱۳۹۵، ۴۳/۶ درصد خانوارها در هر دو سال فقیر، ۶/۳۹ درصد در سال ۱۳۹۱ فقیر و در سال ۱۳۹۵ غیر فقیر، ۶/۳۵ درصد خانوارها در سال ۱۳۹۱ غیر فقیر و در سال ۱۳۹۵ فقیر و ۴۳/۶ درصد خانوارها در هر دو سال فقیر بوده‌اند.احتمال فقیر بودن خانوارهای روستایی در سال ۱۳۹۵ به شرط فقیر بودن آن‌ها در سال ۱۳۹۴ بر اساس دو رویکرد داده‌های تابلویی واقعی به ترتیب برابر با ۹۲/۳۹ و ۸۷/۱۲ درصد است. این شاخص برای سال ۱۳۹۱ و ۱۳۹۵ بر اساس رویکرد داده‌های تابلویی ترکیبی برابر با ۸۶/۸۳ درصد است. نسبت خانوارهایی که در سال ۱۳۹۵ فقیر هستند به شرط آنکه در سال ۱۳۹۴ غیر فقیر باشند به ترتیب ۷/۶۰ و ۱۲/۸۸ درصد بر اساس دو رویکرد مذکور بوده درحالی‌که درصد این جمعیت برای سال ۱۳۹۱ و ۱۳۹۵ برابر با ۱۳/۱۶ درصد می‌باشد.

۵- بحث و نتیجه‌گیری

در این پژوهش از روش دنگ و همکاران سال ۲۰۱۳ که بر مبنای تابع احتمالات حاصل از رگرسیون مصرف بر روی متغیرهای ثابت زمانی است، برای تحلیل پویایی فقر مناطق روستایی استفاده شد. برای بررسی میزان دقیق بودن روش در ابتدا پویایی فقر برای سال‌های ۱۳۹۴ و ۱۳۹۵ دو رویکرد داده‌های تابلویی واقعی و داده‌های تابلویی ترکیبی مورد بررسی قرار گرفت. در رویکرد اول، فقط خانوارهایی مشترک با سرپرست بین ۳۰ تا ۶۰ سال برای سال ۱۳۹۵ و ۲۹ تا ۵۹ سال برای ۱۳۹۴ انتخاب و تحرک فقر آن تحلیل شد. در رویکرد دوم، تحلیل با رعایت بازه سنی سرپرست خانوار و روش تحلیل پویایی فقر برمبنای شیوه دنگ و همکاران انجام شد. رویکرد داده‌های تابلویی ترکیبی برای اندازه‌گیری میزان همبستگی جزئی باقیمانده‌های رگرسیون از روش گروه‌بندی بر پایه روش دیتون (۱۹۸۵) بهره گرفته است که در این راستا در مقاله حاضر خانوارها به ۳۱ گروه سنی تقسیم و ضریب همبستگی جزئی باقیمانده‌ها محاسبه شد. این شاخص در سال‌های ۱۳۹۴ و ۱۳۹۵ بر اساس رویکرد داده‌های تابلویی واقعی و ترکیبی فقط ۰/۷ درصد تفاوت نسبی داشته‌اند.

بررسی پویایی فقر بر اساس تابع احتمالات مشترک و شرطی نامعادلات مصرف و خط فقر در دوره‌های مختلف صورت می‌گیرد. نتایج حاصل از برآورد این تابع احتمالات نشان می‌دهد که در مناطق روستایی کشور نوعی وابستگی حالت در وضعیت فقر وجود دارد. جهت تشریح این مطلب طی سال‌های مورد مطالعه اعم از رویکرد داده‌های تابلویی و ترکیبی بیش از ۸۶ درصد خانوارهایی که در سال ۱۳۹۵ فقیر (غیر فقیر) بودند در دوره اول (سال ۱۳۹۱ یا سال ۱۳۹۴) نیز فقیر (غیر فقیر) بوده و تنها با احتمال کمتر از ۱۴ درصد خانوارهای فقیر (غیر فقیر) سال ۱۳۹۵ در دوره قبل غیر فقیر (فقیر) بوده‌اند.

کلمات کلیدی: اندازه‌گیری فقر، فقر پویا، داده‌های تابلویی ترکیبی، مناطق روستایی، ایران.

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Investigating and Analyzing Factors Causing the Spreading out of Rural Poverty in Miyandoab County through the Application of Q Technique

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Abstract

Purpose- The purpose of this study was to investigate the factors causing the spreading out the poverty in rural areas of thcounty of Miyandoab. knowledge of the extent of poverty affecting the community and the factors affecting it are important issues in the formulation of poverty reduction programs.

Design/methodology/approach- The current research is exploratory and descriptive-analytical and follows a hybrid approach. However, the present research adopts a quantitative approach in (Q) and a qualitative approach, and in the process of factor analysis. The philosophical framework is a kind of interpretive paradigm-positivism, and is a field research the community of discourse includes rural managers (governors, heads of government departments, County Department, rural directors and Dehyars), experts and local experts in the County of Miyandoab. The discourse community was identified through targeted sampling (snowball) and the (Q) collection (41 items) was arranged by 28 members of the statistical community. For data and information analysis, Stephenson's factor analysis was used based on an individual basis.

Findings- Findings of the research showed that the Spreading out of rural poverty are: 1) Low economic power And inappropriate macro policies of the state, 2) Social barriers, insufficient service and investment insufficiency, 3) Environmental hazards and the level of education and awareness, 4) The weak sources of sustainable earnings and marketing mechanisms, (5) Natural sources of inappropriate production and limited spatial flows, and (6) Vulnerability of income sources and the weakness of support institutions (insurance, etc.). Among them, the first factor with a specific amount of 7.17 and a %25.64 variance was identified as the most important factor affecting rural poverty in Miyandoab County.

Research limitations/implications- The most important Constraints of this research were the lack of cooperation of the authorities in the process of completing the questionnaire, and the lack of accurate statistics on rural poverty.

Practical implications- The most important ways that can improve the growing situation of the poor in the study area include diversification into rural economies, improvement of economic infrastructure and change in government policies in the field of creating new and small rural businesses.

Originality/value- The phenomenon of poverty in most rural settlements, especially in developing countries, has been caused by various factors such as economic, social, environmental, physical, and political ones, whichhave led to the spread of this phenomenon. However, few studies have been conducted in this area, especially in the County of Miyandoab. Therefore, consideration of the phenomenon of rural poverty and the factors influencing its expansion with the Q method is essential for accurate and logical planning by planning organizations such as the Ministry of the Interior (Governorate and Governorate), the Deputy Rural and Nomad Committee, and academic researchers.

Key words: Rural poverty, Factors of poverty, Q method, Miyandoab County.
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1. Introduction

The phenomenon of poverty has long been associated with human beings (Christiaensen, Joachim, Weerdt & Yasuyuki, 2013), and one of the teachings of all religions in the world is the capture and protection of the poor. This is a solid proof of the age of poverty and its problematism for the social order of societies throughout history (Shirvaniyan & Najafi, 2011). Today, most developing countries in the world are suffering from severe and chronic deprivation and more than 1.2 billion people in the world are affected by poverty, the majority of whom live in the rural areas of these countries. Among them, 795 million people suffer from severe malnutrition (Food and Agriculture Organization of the United Nations (FAO), 2018). Economists have identified poverty as one of the major issues of development literature, and its removal from society is one of the main goals of economic development (Mahmoudi & Samimifar, 2005). It should be noted, however, that poverty is not a single-dimensional term with an absolute concept, but a multiplicity and multidimensional phenomenon (Sanfo & Gérard, 2012), which is not just an economic dimension to satisfy basic needs, but social, political, physical, environmental ones as well. (Abdollahi, Velaei, & Anvari, 2014).Thus, geographers always regard it as a bitter societal reality - whose adverse effects, and effects are reflected in all aspects of individual and social life of individuals and spatial dimensions- and in this line, the geography of poverty has entered into the world's geographic literature (Boshaq, Taghdisi, & Taghvaei, 2015).

However, in the 1980s, with the modest policies, the issue of poverty was forgotten, to the point where the World Bank called this decade the "decade of forgotten poverty" (Eftekhari, Karami, & Nouripour, 2012). But attention has been paid to poverty alleviation and protection of vulnerable groups at the international level since the 1990s, and the serious support of the United Nations (UN) and its affiliated institutions has led to this in the agenda of the government to be. In the same vein, the United Nations named this decade as the "war on poverty or the root of poverty" (Taleb, Piri, & Mohammadi, 2010). The global bank also called for a world free of poverty and urged governments to take effective action to eliminate hunger, housing development and access to health and education (Zahedi Mazandarani, 2005). The Economic and Social Commission for Asia and the Pacific (ESKAP) members in Asia and the Pacific committed themselves to take the necessary steps to eradicate poverty by 2010, however, the information and evidence available in the countries suggest that, despite this international mobilization, significant results this is not the case, and the number of poor is still rising (Yazdani, 2014). If, unofficial estimates reflect the poverty of 20% of the world's population, most of them live in rural areas (UN, 2010).

In general, poverty in developing countries is much higher than in developed countries, and often these countries face poverty and especially rural poverty (Food and Agriculture Organization of the United Nations (FAO), 2015). The fact is that most of the poor in these countries, and generally the poorest, living in rural areas (Pourtaheri, Eftekhari, & Hosseini, 2011) to the extent that in the world the word "poverty", with the words "village" and "agriculture", "has found great affinity, as it is associated with poverty and deprivation in developing countries, the countryside and agriculture (Ogundipe, Oduntan, Adebayo, & Olagunju, 2016), and those living in these areas are isolated and scattered and do not have much access to socio-economic services and other types of service (Mohammadi Yeghaneh & Velaei, 2014). Poverty in rural areas has been caused by economic, social, cultural (Barbier, 2015), political, and historical factors, and ultimately due to the lack of developed mentalism, it has created adverse outcomes in these societies throughout human history (Sadeghi, 2012). However, poverty, in general, is not allocated to rural areas and its proportion is higher in rural areas due to the emergence of the crisis in the agricultural sector, the lack of industrial development, the lack of infrastructure development, climate change, disasters and environmental crises, and lack of appropriate technology in agriculture. (Binam, Oduol, Olarinde, Diagne, & Adekunle, 2011). If 70% of the world's poor live in rural areas (Christiaensen et al, 2013),thus, given the existence of poor people in rural areas, it is essential to formulate policies and programs to reduce poverty. But knowing the extent of poverty affecting the community and the factors affecting it, is an important issue in defining poverty reduction programs. However, the lack of attention to

influential factors in various programs leads to inappropriate financial policy, waste of economic resources, inefficiencies in efforts and programs, and the persistence of poverty, as well as the prevention of sustainable development (Grivani, Ahmadi Shadmehri, & Fallahi, 2013).Therefore, the World Bank summarizes the factors affecting rural poverty in four economic, social, political and ecological factors (Chen et al, 2015). Experts also believe that the most important factors affecting the high number of poor in rural areas are low per capita income, low land productivity, low level of literacy, unemployment and limitation of facilities and employment opportunities with high productivity (Boshaq et al, 2016), the low level of environmental culture, low environmental biology and so on (Sharifinia, Moshirinia, & Hosseini, 2010).

Our country, like other developing countries, faces poverty and the extent of this phenomenon in a part of its rural society (Rezvani, 2011). Despite poverty in rural areas of the country, in the pre-revolutionary period, policies and programs that directly addressed the issue of poverty eradication are not observed and the policies and objectives of development plans follow the theory of Growth Poles, focusing more on the facilities and heavy industries in big cities and giving priority to the urban economy and industry. They did not pay enough attention to rural areas, the agricultural sector, rural economy, of villagers without land and low land, etc. (Moteiei Langeroodi, 2013). But after the victory of the Islamic Revolution, the first issue of deprivation and study of its quantity and quality was introduced during the time of the Shahid Rajaee government, and then principles 3, 21, 29, 31 and 43 of the constitution explicitly addressed the issue of poverty and Welfare of vulnerable populations. (Khandouzi, Shahsavari, & Khandouzi, 2016). Also, the Shahid Rajaee government has been developing and implementing mid-term (five-year) development plans and some other supportive measures to deal with poverty (Arshadi & Karimi, 2014). In spite of the development of various programs and annual budgets in order to reduce poverty, several factors, such as economic recession, unemployment, population changes, and other socioeconomic factors, have also contributed to the problem of poverty (Khodadad Kashi & SoleimanNejad, 2013).

Meanwhile, in the County of Miyandoab, the majority of villagers are active in terms of employment, income, and investment in agriculture. Today, however, the agricultural sector in this county is in decline due to limited water resources, low productivity, employment restrictions, agricultural mechanization and so on. Also, the study area is in the southeastern margin of Lake Urmia and in the highly sensitive ecological area, which in recent years has been strongly influenced by the drying of this lake, and the low-water crisis and a sharp decline in efficiency agricultural products. This factor has led to a decrease in income, employment, investment, labor productivity, agricultural land and finally the increase in the number of poor in the villages and an increase in the number of immigrants among rural youths and the vacancy of some villages in the County of Miyandoab. Therefore, considering the above-mentioned issues, it seems necessary to root out the factors affecting the development of rural poverty and consider these factors in compilation programs. However, the main purpose of this research is to investigate and identify the causes of poverty development in rural settlements of Miyandoab County. It attempts to answer this question: what is the most important factors affecting the exacerbation and expansion of rural poverty in the Miyandoab of County?

2. Research Theoretical Literature

Poverty is a category that is normative and under the influence of value judgments existing in society, therefore, depending on these judgments, there are several definitions (Khodadad Kashi & Soleymannejad, 2013). For example, Townsend's definition of poverty in the 1960s and 1970s is presented in his poverty studies: "individuals, families and population groups can be considered as poor when they lack the resources to acquire Diets, participation in activities and living conditions" (as cited in Liu, Liu, & Zhou, 2017). In his 1981 study, Amartiyasen also pointed out that all definitions of poverty are somehow referring to deprivation. Of course, deprivation is a relative concept that may vary completely in different places and times (Liu, Liu, & Zhou, 2017). Accordingly, in a developing country, poverty may be considered to be a disincentive for facilities such as food, housing, medicine, etc., which is essential for the continuation of life, while in a developed country, a relative deprivation of the conditions and possibilities of an average life are significant (Arshadi & Karimi, 2014). Also, according to the

definition of the World Bank, poverty is inability to visit a doctor while being sick, poor access to school and unfamiliarity with reading and writing, joblessness, fear of the future, and life only for the same day, loss of child. Poverty is lack of access to clean water, power poverty, lack of representation and lack of freedom. So far, several definitions of poverty have ben presented, some of which are displayed in Table 1.

Table 1 - The most important definitions of poverty
(Source: Researchers, 2018)

Scholar and year	Definition
Mark Henry, 1995	In short, poverty defines the inability to provide basic needs for a decent, human life or condition in which income is not enough to satisfy livelihood needs.
Razavi, 2003	Poverty is part of a social and symbolic hierarchy in which the poor have played the role of loser, the more poverty that goes on, the more hierarchy there is.
Mcculloch, 2003	Poverty is a lack of income or consumption in meeting basic needs.
Lemmi & Gianni, 2006	Poverty is a failure to meet social needs.
Gregory et al, 2009	Poverty is a term used to refer to the welfare state and non-welfare state, in which one cannot demonstrate his ability to act as a personality.
Sanfo& Gérard, 2012	Poverty is a multi-dimensional concept in which individual level and social welfare are in an unacceptable and inadequate situation.
Townsend (1979)	Poverty "is the lack of resources to participate in activities, customs and diets that are usually approved by the community.

In general, poverty can be said to be multidimensional, which includes lack of opportunities, lack of empowerment, insecurity, malnutrition and poor health (Liu, Liu, & Zhou, 2017). Therefore, we realize that poverty is not only a lack of economic factors, but also includes the loss of opportunities, the lack of access to social services and other social exclusions. (Alkire & Seth, 2015; Liu, Zhou, & Liu, 2016).

Given that the world's poor are farmers living in rural areas of developing countries (FAO, 2018, p. 2), therefore, one of the main challenges is the fight against poverty in rural areas (FAO, 2015). At a world-wide level, rural people are at a lower level than their counterparts in terms of health and hygine (International Labour Office, 2015). For example, the study of health status in rural areas in Canada, Australia and the United States shows that rural authorities are mostly elderly people and that they have less access to health facilities. Therefore, the areas of health and well-being are more severe, because they include more diseases, shorter life expectancies, high infant mortality rates, and the prevalence of chronic and contagious patients (Rice & Webster, 2017).

In the same vein, scholars have identified several factors for the spread of poverty. As Chambers (1995) examines rural poverty from a systematic point of view, it is the result of several factors, including the inability to manage, the political weakness of villagers, the geographical dispersion of villages and their access to facilities, poverty of capital and infrastructure facilities, and most importantly, the direction of developmental policies towards cities that are in line with Iran's conditions. Also, Chambers criticized the researchers and development factors for their efforts in a genuine and profound understanding of rural communities of low importance (Panahi & Malek Mohammadi, 2013).The weakness of the economic infrastructure, including the inequality of the agricultural economy against the industrial and service economy, the lack of investment capital, the strengthening of the foundations of sustainable economy are considered as factors of rural poverty. Also, the weakness of insurance products, the weakness of rural bargaining power against urban dealers and marketers, severe product fluctuations, income inequality, severe dispersion of land lots, lack of optimal use of water and soil resources, high levels of pesticide and other factors Economic factors are considered as factors of rural poverty development (Mohammadi Yeghaneh et al., 2014). Moreover, some social factors such as the gender of the household, capitalism (Arif & Shujaat, 2011), the type of occupation and the characteristics of the

employment of household members (Krishna, 2011) etc., are considered as factors in the extension of rural poverty. In addition, the World Bank has also explained the causes of rural poverty in various factors such as economic (low per capita income, low return on land and limited job opportunities) and social (low level of literacy, high household size, inappropriate health, education, food, and housing). Along with the reasons for the World Bank, the political and ecological causes have been added and displayed in Table 2.

Table 2. Factors affecting the increaseand extensionof Rural poverty
(Source: Findings of the literaturereviewof Researchers, 2018)

Factors	Features
Economical	Limited employment opportunities (hidden unemployment) and a shortage of entrepreneurial numbers (Ogundipe, Oduntan, Adebayo, Olagunju, 2016); low labor and land productivity (Dadvarkhani, Salmani, Farhadi & Zare, 2011); limited access to the farmland; the transfer of the minimum income (Ogundipe et al., 2016); the pricevolatility of agricultural products, the increase in income inequality and risk aversion (Hilary Hoynes & Ann, 2006) and… .
social	Low level of human capital; natural growth of the population (Dadvarkhani et al., 2011); low level of education and literacy (Mailumo, Ben, Omolehin, 2013; Boshagh et al., 2016; Achia, Wangombe and Khadioli, 2010), lack of family-friendly cultural facilities (Ogundipe et al, 2016); and…
Political	Lack of investment in rural development allocated to the GDP; inappropriate rural infrastructure such as transportation, communication and irrigation (Dadvarkhani et al., 2016); Not targeting poverty reduction programs and no cause and effect crash when checking the village. (FAO, 2015); lack of macro policies for controlling and pricing appropriate agricultural commodities; lack of programmed import and export of agricultural products (Dadvarkhani et al., 2011) and…
Ecological	Risk of agricultural production against natural disasters (Dadvarkhani, Salmani, Farhadi & Zare, 2011); Changing climatic conditions; Water scarcity; Inappropriate soil (Chen et al., 2015) and so on.

According to the above table, rural poverty is not only from the lack of income in rural areas and, in general, economic factors. In addition to economic factors, the affecting factors for rural poverty are: lack of self-confidence and social acceptance (Srinvas, 2007, p. 5), lack of risk, classic traditions and resistance to change, lack of skilled manpower because of their immigration to large cities, excessive pressure on natural resources, pollution of water and soil resources, natural disasters and natural hazards, lack of physical capital, accumulation of the cost of promoting and training the agricultural sector, the absence of large-scale political programs for control and suitable pricing for agricultural products, poor rural transport, environmental problems, etc**.**

Various studies have been carried out on the issue of rural poverty and the factors affecting it both inside and outside the country. Those which are more relevant to the subject of this research are referred to in Table 3

.

Table 3. Summary of studies on rural poverty
(Source: literature review of Researchers, 2018)

Researchers	Conclusion
YazdaniGharatappeh(2014)	Factors such as low diversity, low employment rate, high household size, housing pattern and limited access to desirable land, inappropriate and non-income jobs, low number of people employed in the family are some of the factors affecting poverty in rural areas.
Boshaq et al., (2016)	The second-order rural poverty model is under the influence of hidden social, economic and political factors. The value of p of all the lambda parameters in the second-order model indicates all of these relationships. Finally, fitting indicators of the model show that social, economic and political factors can well measure rural poverty.
Achia, Wangombe & Khadioli, 2010	Among the variables that affect rural and urban household poverty in Kenya are factors such as the age of the head of household, the size of the household, the number of livestock and education.

Table 3.

Researchers	Conclusion
Bergh and Nilsson (2014)	There is a meaningful relationship between globalization and the reduction of absolute poverty, and the reality is that in recent decades many low-income countries have begun the program of economic liberalization to combat poverty, and the most important way of dealing with absolute poverty is the economic integration of countries at global levels.
Barbier (2015)	The results showed that 15 developing countries account for 90 percent of the world's poor. Low-income countries have the highest levels of poverty and this rate is decreasing with increasing per capita income in the country. The countries of South Asia, East Asia, the Pacific and sub-Saharan Africa are the most important regionsin the world in terms of rural poverty.
Imai et al., (2015)	Access to non-farm employment in rural areas has reduced vulnerability and poverty in both Vietnam and India. If the expansion of domestic and non-residential jobs reduces the risk of such dangers. The importance of a tendency to non-profit businesses is that this sector does not need to train or acquire special skills, which has led to the employment of a large part of the poor, and decline in their number and vulnerability in India and Vietnam for some years.

3. Research Methodology

3.1 Geographical Scope of the Research

The study area is located in the County of Miyandoab, which is located between the geographical coordinates 44', 36° and 18', 37° north latitude and coordinates 36', 45° and 54', 46° east longitude, and its average elevation is 1280 Meter from sea level.

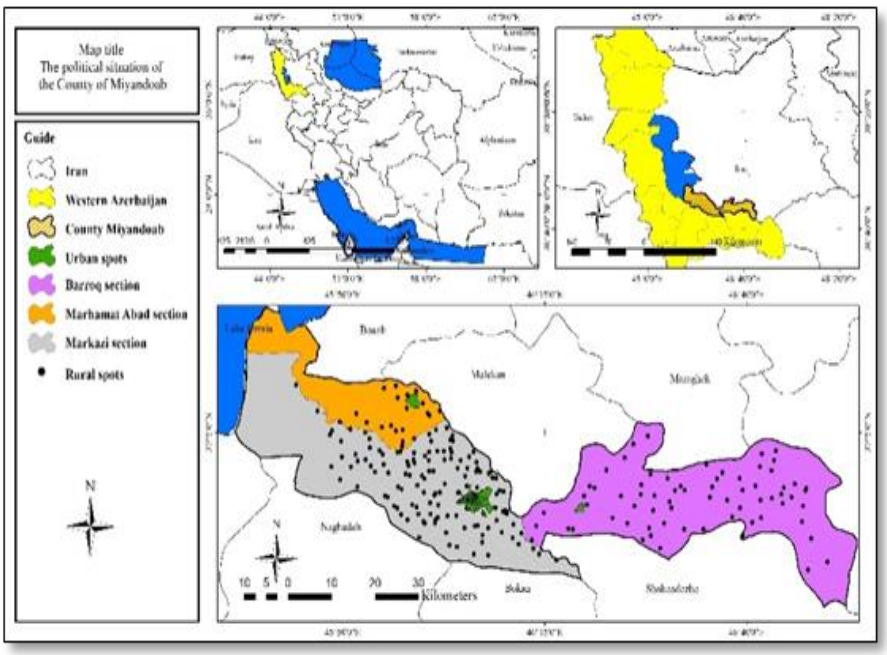

Figure 1. Location of the study area in the province and country

The County is located in the south-east of West Azerbaijan province and is an intermediate region between the three provinces of East Azerbaijan, West Azerbaijan and Kurdistan. This County with its location in this region has been significantly affected by the positive effects of this privileged position. In general, the County is a large alluvial plain that is surrounded by relatively high mountains, except for the west, and partly northwest and north (to the Urmia lake and the plane lands of Malekan plain), in other parts of the country (Miyandoab County Master Plan, 2010) (Figure 1).

3.2. Methodology

The present research is exploratory in terms of purpose and is descriptive-analytic in terms of method. In terms of approach, it is a mixture that has a qualitative approach to the forum's review and has a quantitative approach to the Q-factor analysis. The

philosophical framework of this research is a kind of interpretative-proving paradigm, and in terms of orientation, it is an applied research. This research is considered to be a library - field research. The documentary, because theoretical data for the discovery of subjectivities, was obtained from the study of available resources on the factors affecting the expansionof rural poverty, and when, for identifying subjectivities, the data from the contributors to the interview form was collected at the county level and is considered a field. In this study, the Q method was used to study the attitudes about the factors affecting rural poverty expansionin Miyandoab County. With the link between subjectivism and behaviorism and the concept of factor mentality, Stephenson described the Q methodology as a study of human behavior and activity (Danayifard, Hosseini, & Sheikhha, 2014). This methodology uses a mental point of view to build a typology of different observation points and is a powerful tool for the easy understanding of values, tastes, concerns, and individual perspectives. The basic assumption of the Q method is that beliefs, attitudes, and perceptions are subjective and can be shared, measured and compared with others (Steelman & Magurie, 2007). The basic steps of the Q method are as shown in Figure 2. The research discourse community consisted of local administrators (governors, heads of governmental offices, perfect, rural directors and Dehyars) as well as experts and local experts in the Miyandoab County (Table 4). In the methodology of Q, it is not necessary to randomly select a sample from a population-based society. The advantage of this method is that it allows the systematic study of the mindset and examines the feelings and beliefs that people have about a subject (VanExel & Graaf, 2005).

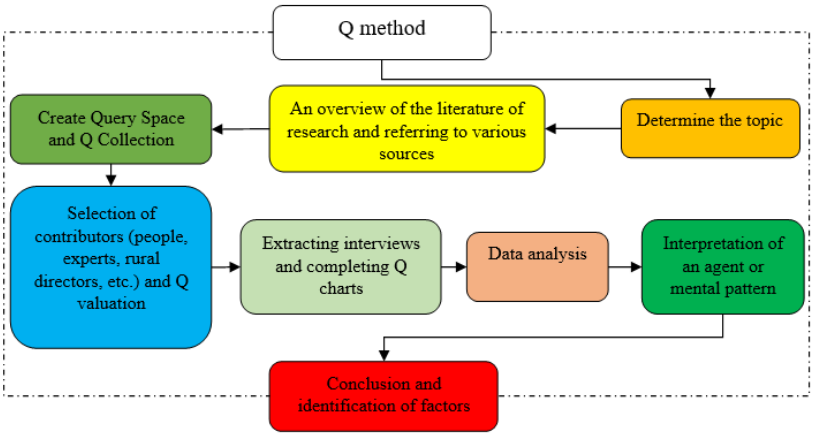

Figure 2: Key Steps for the Q method
(Source: West, 2014, p. 3)

Therefore, a random sampling method (snowball and theoretical) was used to select the statistical sample. Brower (1999) considers the number of contributors in Q methodology related to the number of Q expressions and suggests that the number of contributors must be less than the number of Q's expressions (Danayeifard et al., 2014). Therefore, the number of contributors in this study was 28 (in 28 theoretical saturated interviews). The Dehyars and councils were chosen as the community of discourse, who lived in a village and had a residence history of over 20 years in the village and were farmers themselves. The experts were also those who were born in the village and now they were settled in the city or in the same village for various reasons (employment in governmental and non-governmental departments). These people are at the county level in the field of various rural and agricultural issues, and the villagers in many special cases of sale and pricing of land, election issues, disputes and conflicts (for mediation and problem solving), scientific issues, cultural issues, etc., refer to these people and they are sympathetic. Meanwhile, these people in the village of their place of birth have a special value and respect among the residents (they were introduced to the researchers by referring to the provincial governor and by the rural affairs expert). As previously mentioned, the choice of the community of discourse was based on a theoretical and snowball method and was chosen purposefully.

Table 4. Participating in semi-structured interviews
(Source: Research findings, 2018)

Statistical Society	Number	Place
Head of government offices	8	Governor of Miyandoab, head of the Agriculture Jihad Department, the head of the Islamic Revolutionary Guard Corps, the head of the Natural Resources Office, the Chief of the Office of Water Affairs, Prefects (3 people)
Dehyars & councils	11	The villagers of Ghepchaq, Masjed, Ghorghchi, Baktash, Kuslar, Sofla, lalaklou, Ghatar, Mozafarabad, Malek Abad and HeidarBaghi
Elites and local experts	9	Miyandoab City (3 person), Charborj City (2 person), Barogh City (2 person), Aghdash (1 person) and MalekAbad (1 person)
Total	28	-

The validity of this research was determined by reviewing the theoretical literature and interviewing the participants, and the appropriateness of the phrases and propositions was confirmed by academic professors, experts and experts in this field. In addition, the test coefficient for the 20% of the participants was %926, indicating a high level of reliability. In order to analyze the data of (Q) matrices, we used a person-based exploratory analysis (Stanfenson method).

3. 3. Variables and research indicators

Research variables, using first-hand resources (the views of academic professors, field administrators, field observations, etc.) and recurrent resources (articles, books, publications, etc.) (Anabestani et al., 2011; Achia, Wangombe, & Khadioli, 2010; Boshaq, Taghdisi, & Taghvaei, 2015; Chen et al, 2015; Dedvarkhanei et al., 2011; FAO, 2015; Hilary Hoynes & Ann, 2006; Mailumoa et al., 2013; Ogundipe et al., 2016) The research was developed and finally, with the opinion of professors and specialists in this field, 41 propositions were made.The Q cards were prepared and the rating table was made available to the participants (Table 5).

Table 5. Presentations (variables) of the research
(Source: Library Studies of Researchers, 2018)

Propositions
x1= Limited job opportunities (hidden unemployment), x2= Low labor productivity and land, x3= Low production capital, x4= Limited access to land, x5= Limited income transfer, x6= Reduced post-pay power , X7= income fluctuation of villagers, x8= low employment rate, x9= low bargaining power of villagers against brokers and urban marketers, x10= weakness of product insurance, x11= weakness of financial and financial institutions, x12= low level of education X13= Low cultural level of society, x14= Natural population growth, x15= Low sex ratio, x16= Lack of educational and cultural facilities, x17= Increase in migration of villagers, x18= Limit Government funding in rural areas, x19= inadequate rural infrastructure in Miyandoab city, x20= non-targeting of poverty reduction programs, x21= weakness of scientific studies in rural poverty, x22= non-root cause of poverty X23= Inappropriate Distribution of Rural Cooperatives, x24= Purchasing Problems of Agricultural Products, x25= No Integrated Program for Importing and Exporting Agricultural Products, x26= Existence of environmental hazards such as earthquakes, floods, droughts, etc. in the region, x27= lack of surface water and underground water (especially drinking water supply), x28= lack of access to urban services due to its excessive distance, x29= inappropriate land resources, x30= Topography of villages (mountainous, mountainous and plain), x31= Sloping agricultural lands, x32= Drought and water scarcity in Miyandoab city, x33= Natural resources shortage in Miyandoab city, x34= Rangeland degradation By the villagers and the government, x35= limitation of access to health services and home health and dentistry, x36= limitation of access to first class communication paths, x37= restricted access to educational centers, x38= access restriction to recreational and sports centers, x39= Distance and proximity to the city center (villages that are far away from the city center, are far different from the point of view of physical and Economic relative to the villages around the cities), x40= limitation of access to urban transport services, x41= the existence of a place of residence, especially among the elderly, and dissatisfaction with the change.

4. Research Findings

With the process of Q method, "factors affecting the development of rural poverty in Miyandoab County" were investigated. The first step in the analysis is the formation of the data matrix. At this the analytical model and its appropriateness for the research. The KMO criterion was equal to 0.676 (more than the minimum reliable value is 0.05) and stage, 28 respondents and 41 propositions (variables) formed the matrix of the study. The statistical results were obtained from the implementation of the analytical model and the KMO benchmark and the Bartlett test confirming

the Bartlett value was equal to 999.899 and its significance level was 0.000 (Table 6).

Table 6. Bartlett test at a significant level
(Source: Research findings, 2018)

Collection of analysis	KMO	Bartlett	df	sig
Factors Affecting the Development of Rural Poverty	0.676	999.899	378	0.000

To identify the factors, the specific value (the strength and ability of the discovered factors in the expression of subjectivities) and the percentage of variance (factor coverage value from each Q diagram) were calculated, and with the Gipsy graph and the Kaiser Gottmanscale, the factor Ships were determined. The rotation of the factors was done using the mathematical method and the Varimax model. Factor scores were obtained by regression method and the factor array was formed. Then it was interpreted by analogy (inductive-deductive logic). The extracted factors after the period explain 72.89% of the variance of the total variables. That is, 72.89% of the variability is explained in 6 main factors. Therefore, the complexity of the set of variables can be considerably reduced by using these six factors, with a loss of only 27.11% of the variance of variables. It should be noted that after turning Varimax variables, 2 respondents of the research (from local experts and experts) and 4 variables due to low factor load (less than 0.05) and therefore lack of correlation with other variables, Analysis was excluded (Table 6).

Table 7. Main factor loads and the amount of variance explained for each post-period factor
(Source: Research findings, 2018)

Factor name	special amount	Percentage of variance	Cumulative variance
Low economic power and macro policies of the state	7.17	25.64	25.64
Social barriers, limited service and investment insufficiency	3.88	13.86	39.50
Environmental hazards and the level of education and awareness	2.87	10.27	49.78
The weak sources of sustainable earnings and marketing mechanisms	2.48	8.86	58.64
Natural sources of inappropriate production and limited spatial flows	2.21	7.91	66.55
Vulnerability of income sources and the weakness of support institutions (insurance, etc.)	1.77	6.33	72.89

- Factor analysis

The first factor: the specific value of this factor is 17.7, which explained 25.64% of the variance. In this factor, 10 charts (shared view) were loaded. The viewpoints of 3 people officials from the offices, 5 people of Dehyars and 2 people of local experts were loaded on this factor (Table 7).

The overall interpretation of the analogy logic showed that the priority Q option for rural poverty extension in the Miyandoab County is mainly related to the "economic and political" factors. Identified factors from the group's comments showed that the eight options (Quotes) Q have earned more than one factor and are the most influential in expanding rural poverty. The accumulation of these propositions in one factor means that there is a meaningful relationship between economic and political indicators. However, the development of appropriate policies and policies by the state provides for the improvement of economic power.

Table 8. Charts (variables) loaded in the first factor
(Source: Research findings, 2018)

Respondents	Factor load	Respondents	Factor load
Responder Number 1: (Local Certified)	0.821	Responder Number 23: (Responsible)	0.549
Responder Number 3: (Dehyar)	0.888	Responder Number 25: (Dehyar)	0.830
Responder Number 5: (Dehyar)	0.585	Responder 26: (Rural Expert)	0.803
Responder 9: (Dehyar)	0.762	Responder Number 27: (Responsible)	0.803
Responder Number 20: (Responsible)	0.757	Responder Number 28: (Dehyar)	0.749

From the perspective of rural managers and experts, the industry and services sector in the agricultural sector have not been expanded, and most of the villages in this county are active in agriculture. Nowadays, the agricultural sector in this county has gone through a decline due to various reasons such as water resources constraints and does not have the capability to absorb all existing labor force, which has reduced job opportunities especially in agriculture. Also, agriculture, due to its seasonal nature, has spread this hidden unemployment in villages, which has led to a decline in income and retention power among the people. Also, the intense administrative bureaucracy and the difficulty in obtaining bank capital investment have led to a very low level of production capital. The lack of rural infrastructure for investing and creating employment is another major factor in the spread of poverty. In addition to economic infrastructures, political factors such as the lack of rooting of officials with the phenomenon of poverty, the lack of consistent programming in the import and export of agricultural products and the lack of attention to the productions of villagers, the degradation of pastures, and most importantly the problems guarantedpurchaseof agricultural products such as wheat. As the villagers' products are purchased at a very cheap rate and there is no guarantee of a farmer's money receipt in this area, as a result, urban spammers will penetrate the villages and transfer the minimum income to the villagers, reduce income and bring along the rural poverty. Therefore, this factor can be called the "low economic power and macro policies of the state" (Table 8).

Table 9. Common statements with high factor rating in the first factor
(Source: Research findings, 2018)

Variable	Factor load	Variable	Factor load
Occupational opportunities (hidden unemployment)	1.74	Non-root cause of poverty	1.35
Low production capital	1.62	Purchasing problems for agricultural products	1.17
Reducing postponement and risk aversion	1.039	The lack of a program in importing and exporting agricultural products	1.47
Inadequate rural infrastructure	1.07	Destroying pastures by people and government	1.26

Second factor: The specific value of this factor is 3.88, which explains 13.86% of the variance. In this factor, six charts (variables) were loaded, of which two were responsible and 2 people were experts or local experts and 2 people were Dehyars (Table 9).

Table 10. Charts (variables) loaded in the second factor
(Source: Research findings, 2018)

Respondents	Factor load	Respondents	Factor load
Responder Number 6: (Local Expert)	0/759	Responder Number 14: (Local Certified)	0/657
Responder Number 11: (Responsible)	0/607	Responder Number 19: (Dehyar)	0/519
Responder Number 13: (Dehyar)	0/717	Responder Number 24: (Responsible)	0/563

The priority Q option in this factor for the expansion of rural poverty is mainly related to economic and social factors. The identified factors from the group's comments showed that the six options for Q have earned more than one factor, and in the Expansion of rural poverty in the Miyandoab

County, this group has the most impact. In terms of this group point of view, the increase in the number of immigrants of villages, especially seasonal migration of rural youth to major and industrial cities such as Tehran, Tabriz, Shiraz, Ahvaz, Southern Port Cities and ... has been the main factor in increasing poverty in the region. Similarly, the low level of employment in this area due to the declining agricultural sector and the absence of industrial factories and the weakness of the finance and financial institutions due to the lack of a circle of powers, financial and political power and the limitation of government investment in the rural areas of the Miyandoab County are effective in the fear of returning capital in this area. In addition, the low "educational and cultural facilities" for the promotion of modern and mechanized agriculture, which due to lack of water in the County is a suitable strategy for agricultural development, and limited access to recreation and sports centers from other factors of the spread of poverty in this range is counted. Thus, the propositions of this factor can be called "social barriers, limited service, and limited investment" (Table 10).

Table 11. Common statements with high factor rating in the second factor
(Source: Research findings, 2018)

Variable	Factor load	Variable	Factor load
Lack of employment and lack of entrepreneurship	1.72	Increased migration of villagers (seasonal migration)	2.67
Weaknesses of financial and financial institutions	1.20	Investment Restriction in Rural Areas	1.67
Lack of educational and cultural facilities	1.18	Restricted access to recreational and sports centers	1.13

Third factor: The specific value of this factor is 2.87%, which explains 10.27% of the variance. In this factor, four charts include 1 Islamic Council, 1 Dehyar and 2 villagers loaded (Table 11).

Table 12. Charts (variables) loaded in the third factor
(Source: Research findings, 2018)

Respondents	Factor load	Respondents	Factor load
Responder Number 10: (Islamic Council)	0.543	Responder Number 17: (Responsible)	0.819
Responder Number 16: (responsible)	0.531	Responder Number 22: (Dehyar)	0.838

The formation of an array of factors from the propositions of this diagram shows that the weaknesses in social culture and natural growth of the population and the problem of drought and poverty are among the factors of the spread of poverty. However, the low level of literacy and social culture of family caretakers and the lack of consent to change and create non-profit businesses and natural population growth on the one hand and the emergence of environmental hazards such as floods, especially in the spring and late summer, severe winds and storms and problems, the supply of drinking water and agriculture, on the other hand, are the most important factors in the spread of poverty in this region. Therefore, this factor can be called "environmental hazards and the level of education and awareness" (Table 12).

Table 13. Joint statements with high factor rating in the third factor
(Source: Research findings, 2018)

Variable	Factor load
Low level of literacy in society (social culture)	1.004
Natural population growth	1.002
There are environmental hazards such as earthquakes, floods, storms and ... in the region	1.30
Lack of surface water and underground resources (especially for drinking water and agriculture)	1.18

Fourth factor: The specific value of this factor is 2.48, which explains 8.86% of the variance. In this factor, 2 charts are loaded (1 expert and 1 Dehyar) (Table 13).

Table 14. Charts (variables) loaded in factor four
(Source: Research findings, 2018)

Respondents	Factor load	Respondents	Factor load
Responder Number 2: (Local expert)	0.867	Responder Number 21 (Dehyar)	0.893

The formation of an array of factors from the propositions of this graph shows that limited income and poverty reduction programs and the occurrence of drought and low water are among the factors influencing rural poverty Expansion. In this group point of view, the reduction in incomes in rural poverty has greatly affected the studied area. The reason for the limited income of the villagers is the lack of bargaining power of the villagers against the brokers and urban marketers who buy agricultural products below their actual price and deprive villagers from more income. Other causes of poverty increase are not targeted by poverty reduction programs by government agencies, because programs are designed from top to bottom, and these programs cannot be combined with culture and environment. Encountered and solve their problems. Another factor in the spread of poverty is the occurrence of drought in the County, which has intensified since 2003, causing a decrease in the number of agricultural lands. If the water resources of the sub-valleys of the County have declined in the last decade, the dryness of the Lake Urmia is proof of this claim. Therefore, this factor can be called "weak of sustainableincome sources and marketing mechanisms" (Table 14).

Table 15. Joint statements with high factor rating in factor four
(Source: Research findings, 2018)

Variable	Factor load
Reduce the income of the villagers	2.23
The low chasing power of the villagers against urban brokers and marketers	1.05
Not targeted poverty reduction programs	1.04
Drought and water scarcity in the city of Miyandoab	1.79

Fifthi factor: The specific factor of factor 5 is 2.21 which explains 7.91% of the variance. In this factor, 3 charts (2 experts and 1 Dehyar) are loaded (Table 15**).**

Table 16. Charts (variables) loaded in Fifth factor
(Source: Research findings, 2018)

Respondents	Factor load	Respondents	Factor load
Responder Number 4: (Local expert)	0.805	Responder Number 12 (Dehyar)	0.702
Responder Number 8: (Local expert)	0.793	-	-

The formation of an array of factors from the propositions of this chart shows that the lack of natural resources and access to the factors affecting the development of rural poverty are considered. From this group viewpoint, the variations in the lack of natural resources such as water, soil, and agricultural land, the natural attractions of tourism, and ... in the Miyandoab County, had a great influence on the development of rural poverty. Also, with the drying of the water of the lake and the outflow of salt domes and the transfer of salt to arable land by wind and storm, grazing in the rangeland by trap, unsuitable plowing and bad weather, the use of inappropriate chemical fertilizers and ..., caused Loss of soil quality and inappropriate land and soil resources. This has greatly affected the productivity of agricultural production and, as income declines, has exacerbated the expansion of poverty. Similarly, restrictions on the access to space and space for health services, and the home of health and dentistry and transportation and the surrounding cities are among other important factors in the spread of poverty. Therefore, this factor can be called the "inappropriatenatural resources for production and limited spatial flows" factors (Table 16).

Table 17. Common statements with high factor rating in Fifth factor
Source: (Research findings, 2018)

Variable	Factor load	Variable	Factor load
Inappropriate land and soil resources	1.46	Restricted access to health services	1.48
Lack of natural resources in the city	1.92	Limitation of access to urban transport services	1.36

Sixth factor: The special value of this factor is 1.77 which explains 6.33% of the variance. In this factor 1, the Q graph (respondent number 15 (responsible)) was loaded with factor load of 0.741. The formation of an array of factors from the propositions of this Q diagram shows that the economic weakness of villagers is one of the factors affecting the development of rural poverty in this factor. From the perspective of this individual, the variation in labor productivity and land productivity in rural development has been greatly affected by the variables loaded on this factor. However, economic factors such as low labor and land productivity, limited land availability, fluctuating rural incomes, and the weakness of agricultural insurance due to lack of awareness among farmers are one of the most important factors in the spread of rural poverty in the Miyandoab County. Therefore, this factor can be called the "vulnerability of income sources and the weakness of support institutions (insurance and ...)" (Table 17).

Table 18. Joint statements with high factor rating in factor six
Source: (Research findings, 2018)

Variable	Factor load	Variable	Factor load
Low labor and land productivity	1.30	The weakness of the insurance of agricultural products	1.59
Limited access to land	1.84	The fluctuating income of the villagers	1.63

5. Discussion and Conclusion

Scholars have described various factors for the spread of rural poverty in different parts of the world, especially developing countries, and they are considered to be the fruit of many factors, including; the inability to manage and political weakness, the geographical dispersion of villages and their access limitations to facilities, poorcapital and infrastructure, weakness of the economic infrastructure, the inequality of the value of the agricultural economy against the industrial and service economy, the lack of investment capital and the strengthening of the foundations of sustainable economics, the weakness of rural bargaining power against urban speculators and marketers , shortage of qualified and skilled medical personnel, type of occupation, level of literacy, high family size, inappropriate health, education, food and housing, and so on. The results of the present study, on identifying the factors affecting rural poverty expansion in the Miyandoab County, showed that the most important factors that have caused the spread and expansion of poverty in rural settlements of the study area are: 1) low economic potential and macroeconomic policies of the state, (2) social barriers, limited service and investment, (3) environmental hazards and the level of education and awareness, (4) weak sustainable incomesources and marketing mechanisms, (5) inappropriate production resources and limited spatial flows, and (6) vulnerability of income resource and weakness of support institutions (insurance and ...).

Among these, the "low economic power and macro policies of the government" factor with a specific amount of 7.17 and a 25.64% variance were identified as the most important factors affecting the spread and expansion of rural poverty in the Miyandoab County. As a result, the agricultural sector (Farming, horticulture, livestock farming, beekeeping, fish farming, etc.) as the most important source of income for the people of this countydue to the limited water resources and drought (since 2003) and the seasonal nature of that hidden unemployment in the countryside has led to a decline in employment, income, and retention power among the people. There is also a severe administrative bureaucracy and difficult guarantees for obtaining banking facilities for the villagers who intend to invest, which has led to a very low level of investment in the manufacturing sector (especially rural industries). In addition to economic infrastructures, political factors such as the lack of a root-face of officials with the phenomenon of poverty, the lack of systematic and coherent programs in the import and export of agricultural products and lack of attention to the basic products and handicrafts produced by the villagers, The degradation of the pastures and more important than all the problems of guaranteed purchase agricultural products such as wheat and grapes are among the most important factors in the distribution of poverty in the county. If the products of the villagers at a very cheap rate were bought by urban and rural landlords months prior to the time of exploitation,

there would be no guarantee of the receipt of money in this field for the farmers, and as a result, the brokers and marketers bought the agricultural products of the villages which would reduce the income level of the villagers and bring rural poverty to the villagers. Also, the increase of immigration rate of villagers, especially seasonal migrations of rural youth to big and industrial cities such as Tehran, Tabriz, Shiraz, Ahvaz, southern port cities and ... are one of the most important factors in increasing poverty in this region Similarly, the low level of employment in this area, due to the declining agricultural sector and the absence of industrial factories, and the weakness of financial and financial institutions due to the lack of a circle of powers and financial and political power and the constraints of government investment in rural areas in the Miandoab county (due to the fear of returning capital), it is considered as one of the most important factors in the development of rural poverty. Similarly, non-targeted programs and policies for reducing poverty by government bodies and the occurrence of drought and depression in the city are other important factors in rural poverty expansionin Miyandoab County. In general, the results of this study are in line with the results of other studies, i.e. Yazdani Gharatepeh (2014), Boshagh, Taghdisi, & Taghvaei, (2016), Barbier (2015), Imai, Gaiha, & Thapa, (2015). According to the results of the research, considering the results of the research, it is recommended to be considered that rural economic diversification**,** in the framework of industrialization and development of the services and agriculture sector with a new approach, development of small rural businesses, changing the pattern of cultivation in the lands leading to Lake Urmia And cultivating resistant species such as saffron and pistachios, Developing Economic Infrastructure in Rural Areas and the development of poverty alleviation policies at the county level and ... by the authorities and indigenous peoples.

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بررسی و تحلیل عوامل مؤثر بر گسترش فقر روستایی در شهرستان میاندوآب با تکنیک Q

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چکیده مبسوط

۱- مقدمه

فقر در نواحی روستایی در اثر عوامل اقتصادی، اجتماعی، فرهنگی، سیاسی، تاریخی و در نهایت در اثر عدم توسعه‌روستایی شکل گرفته و در طول تاریخ بشری پیامدهای نامطلوبی را در این جوامع ایجاد نموده است. بنابراین، بین فقر و زندگی روستائی ارتباط تنگاتنگی وجود دارد، زیرا بیش از سه چهارم فقرا در مناطق روستائی زندگی می‌کنند. از آنجا که هرگونه سیاست‌گذاری موفق (در راستای توسعه‌روستائی) مستلزم شناخت این پدیده است، لذا اطلاع از میزان گستردگی فقر حاکم بر جامعه و عوامل مؤثر بر آن از مسائل مهم در تدوین برنامه‌های کاهش فقر به‌شمار می‌رود. در همین راستا، شهرستان میاندوآب در حاشیه جنوب‌شرقی دریاچه ارومیه و در منطقه بسیار حساس اکولوژیک که طی سال‌های اخیر به‌شدت تحت تأثیر خشک شدن آب این دریاچه قرار گرفته و بحران کم‌آبی و کاهش شدید راندمان تولیدات کشاورزی در منطقه مورد مطالعه اتفاق افتاده است. این عامل منجر به کاهش درآمد، اشتغال، سرمایه‌گذاری، بهره‌وری نیروی کار و اراضی کشاورزی و بالاخره افزایش تعداد فقر و فقرا در روستاها شده است. لذا ریشه‌یابی عوامل مؤثر بر گسترش فقر روستایی و در نظر گرفتن این عوامل در برنامه‌های تدوینی لازم و ضروری به نظر می‌رسد. به همین‌جهت، هدف اصلی تحقیق حاضر بررسی و شناخت عوامل گسترش و ریشه‌یابی فقر در سکونتگاه‌های روستایی شهرستان میاندوآب می‌باشد و تلاش دارد به این سؤال پاسخ دهد: مهمترین عوامل مؤثر بر تشدید و گسترش فقر روستایی در شهرستان میاندوآب کدامند؟

۲- روش شناسی

پژوهش حاضر از حیث هدف اکتشافی و از نظر روش توصیفی- تحلیلی و از نظر رویکرد ترکیبی است که در مرحله بررسی تالار گفتمان کیو (Q) رویکرد کیفی و در مرحله تحلیل‌عاملی کیو رویکرد کمی دارد. چارچوب فلسفی از نوع پارادایم تفسیری- اثبات‌گرایی است و از حیث مکانی، پژوهشی کتابخانه‌ای ـــ میدانی محسوب می‌شود. جامعه گفتمان نیز شامل مدیران روستایی (فرمانداری، رئیس ادارات دولتی، بخشداری، دهیاری‌ها و شوراهای اسلامی)، کارشناسان و خبرگان محلی شهرستان میاندوآب می‌باشند. جامعه گفتمان از طریق نمونه‌گیری هدفمند (گلوله برفی) معین شد و مجموعه کیو ۴۱ گویه‌ای را ۲۸ نفر از جامعه‌آماری مرتب کردند. روایی این پژوهش با مرور ادبیات نظری و مصاحبه با مشارکت‌کنندگان تعیین شد و سنخیت عبارات و گزاره‌ها توسط اساتید دانشگاهی، کارشناسان و خبرگان در این زمینه تأیید شد. به‌علاوه ضریب آزمون برای ۲۰ درصد شرکت کنندگان ۰/۹۲۶ درصد به دست آمد که نشانگر سطح بالای پایایی است. جهت تجزیه و تحلیل داده‌ها و اطلاعات از تحلیل عاملی استفنسون بر مبنای فرد استفاده شد.

۳- یافته‌های تحقیق

با فرایند روش کیو «عوامل مؤثر بر گسترش فقر روستایی در شهرستان میاندوآب» مورد بررسی قرار گرفت. نتایج آماری حاصل از اجرای مدل تحلیل عاملی به روش استفنسون و معیار KMO و آزمون بارتلت تأیید کنندهٔ مدل تحلیل‌عاملی و تناسب آن برای پژوهش بود.

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معیار KMO برابر با ۰/۶۷۶ (بیشتر از حداقل مقدار قابل اطمینان ۰/۰۵) و مقدار بارتلت برابر ۹۹۹/۸۹۹ و سطح معناداری آن ۰/۰۰۰ محاسبه شده است. نتایج تحلیل عاملی بعد از دوران عامل‌ها حکایت از ۶ عامل اصلی گسترش فقر در این محدوده دارد. به طوری که، مجموعاً عامل‌ها ۷۲/۸۹ درصد واریانس کل متغیرها را تبیین می‌کنند، یعنی ۷۲/۸۹ درصد از تغییرپذیری در ۶ عامل اصلی توضیح داده شده است. بنابراین به طور معنی‌داری می‌توان پیچیدگی مجموعه متغیرها را با استفاده از این ۶ عامل، با از دست دادن فقط ۲۷/۱۱ درصد از واریانس متغیرها کاهش داد. در بین این عامل‌ها عامل اول «ضعف زیرساخت‌های اقتصادی و سیاست‌گذاری دولت» با مقدار ویژه ۷/۱۷ و در صد واریانس ۲۵/۶۴ در صد واریانس مهمترین عامل شناسایی شده است. چنانچه، تدوین برنامه‌ها و سیاست‌های مناسب از طرف دولت زمینه بهبود توان‌های اقتصادی را مهیا می سازد. از دیدگاه مدیران و کارشناسان روستایی، بخش صنعت و خدمات همپای بخش کشاورزی در این شهرستان گسترش نیافته و غالب مردم روستاهای این شهرستان در بخش کشاورزی مشغول فعالیت هستند. امروزه، بخش کشاورزی در این شهرستان به دلایل مختلف از جمله محدودیت منابع آب روند رو به زوالی را در پیش گرفته و توان جذب همه نیروی کار موجود را ندارد و این امر موجب کاهش فرصت‌های شغلی به ویژه در بخش کشاورزی و گسترش فقر روستایی شده است و عامل «ضعف بنیان اقتصادی روستاییان» با مقدار ویژه ۱/۷۷ و درصد واریانس ۶/۳۳ به عنوان کم اثرترین عامل در توزیع و گسترش فقر در محدوده مورد مطالعه شناسایی شده است.

۴- بحث و نتیجه گیری

نتایج تحقیق در زمینه شناخت عوامل مؤثر بر گسترش فقر روستایی در شهرستان میاندوآب نشان داد که، بخش صنعت و خدمات، همپای بخش کشاورزی رشد و گسترش نیافته و غالب مردم روستاهای این شهرستان در بخش کشاورزی (زراعت، باغداری، دامداری، پرورش زنبور عسل، پرورش ماهی و ...) مشغول فعالیت هستند. ولی امروزه، بخش کشاورزی در این شهرستان به دلیل محدودیت منابع آب و بروز خشکسالی (از سال ۱۳۸۲ شدت گرفته)، پایین بودن میزان بهره‌روی، محدودیت اشتغال‌زایی، درآمد کم و غیره روند رو به زوالی را در پیش گرفته و توان جذب همه نیروی کار موجود در روستاها را ندارد. این امر موجب کاهش فرصت‌های شغلی به‌ویژه در بخش کشاورزی گردیده و موجب گسترش و توزیع فقر روستایی شده است. لذا، مهمترین عواملی که موجب پخش و گسترش پدیده فقر در سکونتگاه‌های روستایی محدوده مورد مطاله گردیده، عبارتند از: ۱) ضعف زیر ساخت‌های اقتصادی و سیاست‌گذاری دولت، ۲) افزایش مهاجرت فصلی و محدودیت سرمایه‌گذاری و اشتغال، ۳) ضعف فرهنگ اجتماعی و مخاطرات‌محیطی، ۴) بروز خشکسالی و کاهش درآمد، ۵) محدودیت‌های طبیعی و دسترسی فضایی و ۶) ضعف بنیان اقتصادی روستاییان. همانطوری که گذشت، در بین این عامل‌ها، «ضعف زیرساخت‌های اقتصادی و سیاست‌گذاری دولت» با مقدار ویژه ۷/۱۷ و درصد واریانس ۲۵/۶۴ به عنوان مهمترین عامل مؤثر بر گسترش و پخش فقر روستایی در شهرستان میاندوآب شناخته شده است.

کلمات کلیدی: فقر روستایی، عوامل فقر، روش Q، شهرستان میاندوآب.

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The Effect of Social Capital Aspects on Entrepreneurial Behavior of the Members of Rural Women Cooperatives in Mazandaran Province

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Abstract

Purpose- Women play a significant and growing role in business development and their entrepreneurship has attracted so much attention throughout the world. Since women entrepreneurship and entrepreneurial behavior are influenced by several factors, the present study aims to explore the impact of social capital and its components on entrepreneurial behavior of rural women who were members of cooperatives across Mazandaran province, Iran.

Design/methodology/approach- The statistical population was composed of 1396 members of 11 rural women cooperatives out of which 320 individuals were taken as the research sample using proportionately allocated stratified technique based on Krejcie and Morgan's table. Data were collected with a self-designed questionnaire composed of two sections for social capital in five aspects and entrepreneurial behavior in six aspects. The validity of the research instrument was checked by a panel of experts and its reliability was estimated by Cronbach's alpha to be 0.921 for social capital section and 0.905 for entrepreneurial behavior section. Data were analyzed in descriptive and inferential sections using SPSS and LISREL software packages.

Findings- The social participation aspect of social capital and the resource supply aspect of entrepreneurial behavior were ranked the first. The qualitative assessment of social capital and entrepreneurial behavior showed that they were at a satisfactory level among the members of rural women cooperatives. According to the path coefficient calculated in the structural equations (0.9), social capital plays a significant role in entrepreneurial behavior among the members of rural women cooperatives. Also, the results of structural equations revealed that intra-group social participation was the most important aspect of social capital in terms of the influence on the entrepreneurial behavior of rural women.

Research limitations/implications- The dispersion of rural women cooperatives across the province and difficult access to their members to fill the questionnaire were the main constraints of the study.

Practical implications- Entrepreneurial behavior can be strengthened and developed by improving social capital through communication of cooperatives with other agencies and institutions involved in rural affairs such as other successful cooperatives, regular meetings to clarify the activities of cooperatives, and the enhancement of women's awareness of opportunity recognition and decision-making through holding training workshops and courses of practical entrepreneurship.

Originality/value - The results can be used by relevant organizations to develop and accomplish pre-determined goals for rural women cooperatives through strengthening the issue of entrepreneurship.

Keywords: Social capital, Social participation, Entrepreneurial behavior, Rural women cooperatives

Paper type: Scientific and Research.

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1. Introduction

Entrepreneurial behavior is an overwhelming and necessary need for all individuals and organizations (Thompson, 1999). The cooperative sector is one of the non-governmental organizations that pursue entrepreneurship as a goal. The cooperative sector is a suitable platform for developing entrepreneurs so that it can strengthen entrepreneurial morale and behavior and play a role in the prosperity of its positive attributes (Rahimi, 2008). The adoption and application of entrepreneurship approach can improve the productivity of all production factors, organizational capabilities, and competitiveness indicators of cooperatives (Talebi & Zahedi Anbardan, 2016).

In the contemporary world where entrepreneurship is a rapidly growing concept, women have an increasingly important role to play in entrepreneurship and business development. In this respect, women entrepreneurship is a matter of particular interest throughout the world. The 2002 Global Entrepreneurship Monitor, published by the Kauffman Foundation, emphasizes that women's entrepreneurship plays a prominent role in the health of nations' economies. Anvari (2012) states that the development trend can be accelerated by considering the role of rural women in production, distribution, and consumption and also, as active actors in changing society in the social, economic, cultural, and environmental aspects. Hence, women's rural cooperatives can, directly or indirectly, contribute to the creation and development of entrepreneurship by pursuing such goals as creating employment for job-seeking women, development rural women's organizations, participating in crop and animal production, optimally serving low-income rural women, and using bank and investment facilities for rural women (Ebrahimi, 2005). These cooperatives have a profound impact on the culture of rural communities, increase decision authority among rural women, and lay the ground for entrepreneurship and the employment of rural women as a large fraction of rural workforce (Shiri & Ajili, 2010).

Studies on entrepreneurship and entrepreneurs have always tried to answer the questions as to what the entrepreneurial requirements of organizations are and how they can be institutionalized in organizations to pave the way for their emergence and development. Most research studies on entrepreneurship have explored and enumerated the personality characteristics of entrepreneurs and have been of structural type, but they have been criticized for neglecting social relationships (capital) networks as a non-economic factor. As a social phenomenon, social capital leads to creativity, ideation, facilitation of innovative behaviors, and risk-taking behaviors and can play a significant role in entrepreneurship by relying on such indicators as relationships, trust, and coherence of individuals. This kind of capital is critical for entrepreneurial activities because entrepreneurship is a socio-economic process that relies on social conditions and context in two ways: first, entrepreneurs are the product of their social environment, and second, entrepreneurship is a social activity, and consequently, social ties and links influence the nature of businesses. Social capital helps entrepreneurs overcome resource constraints (Bauernschuster, Falck, & Heblich, 2010). Therefore, it is of crucial importance to consider the role of social capital, which provides entrepreneurs with access to rich information and social support during the entrepreneurial process (Rabiei & Sarabi, 2013). Individuals who have stronger social capital can influence the establishment and development of businesses and reach new markets (Lin & Huang, 2005). Thus, social capital is important to entrepreneurs so that entrepreneurs residing in groups with higher social capital are in advantage within their networks and can effectively recognize and exploit commercial opportunities (Rabiee & Sadeghzadeh, 2011).

Entrepreneurship is a domain that has always been struggling with challenges, but female entrepreneurs are faced with graver problems than their male counterparts because of gender discriminations established at a deeper level of cultural behaviors in societies. This makes it more necessary to study them. Given the significance of entrepreneurship for women, the present study focuses on the impact of social capital, as a key factor in collective environments such as rural cooperatives that are formed to create and develop entrepreneurship, on entrepreneurial behavior. Along with assessing social capital among female members of cooperatives and their entrepreneurial activity level, the present work addresses the impact of women's social capital on their entrepreneurial behavior. Identifying the dimensions of social capital that are more influential on the display of entrepreneurial behavior was another goal.

2. Research Theoretical Literature

2.1. Entrepreneurial behavior

Entrepreneurship refers to the process of value creation by providing a unique combination of resources to take advantage of an opportunity (Janghorbanian, Kamkar, & Samavatian, 2010). Entrepreneurship is, in fact, the innovative use of resources to exploit opportunities. Citing Drucker (1985), Ahmadi, Shafei & Mehfakherienia (2012) state that entrepreneurship is more a behavioral pattern than a personality characteristic. This behavioral pattern can be taught to people to learn how to behave entrepreneurially. Citing Scheiner (2009), Neghabi, Zafarian, Yousefi & Rezvani (2012) state that the display of entrepreneurial behaviors is an inherent phenomenon occurring in humans since their birth. An entrepreneurial action refers to conceptualization and implementation of a new idea, process, product, service, or business, and an entrepreneurial agent is an individual or group of individuals that are in charge of prospering an entrepreneurial action. In a broader sense, entrepreneurial behavior encompasses all actions taken by people that are associated with the exploration, assessment, and exploitation of entrepreneurial opportunities (Janghorbanian, Kamkar & Samavatian, 2010). By an inclusive definition, entrepreneurial behavior is the pursuit of activities by individuals through creating and exploiting innovative combinations so that opportunities can be identified and seized (Mair & Marti, 2006).

2.2. Social capital

Social capital used to be applied just in general and its functions have never been discussed in specific environments. This concept has recently found its way into organization analyses (Rabiee & Sadeghzadeh, 2011). Social capital is a desirable element for intra-group collaborations so that the higher the social capital is, the less costly the accomplishment to the goals will be for the group. If the features like trust, awareness, and participation (social capital) are not adequately available in a group, the costs of cooperation will increase and the achievement to performance will depend on establishing costly regulatory and controlling systems (Shahosseini, 2012). The term "social capital" refers to capitals like social trust, norms, and networks drawn by people to solve their general problems (Adam & Roncevic, 2003). Adler (2002) argue that social capital is a basis to explain and describe the connections of people and organizations. In other words, the broader, more stable and deeper the relationships of the individuals, the more the social capital available for them (Alvani, Nategh & Farahi, 2007).

Like physical capital and human capital (i.e., tools and training that enhance individual productivity), social capital refers to the features of a social organization (e.g., networks, norms, and trust) that facilitate coordination and collaboration to gain mutual benefit (Azkia & Firuzabadi, 2008). Zare, Namiranian, Shabanali Fami & Ghasemi (2011) state that social capital encompasses concepts such as trust, cooperation, and collaboration among the members of a group or community that form a purposeful system so that the emergence of a level of social capital in a region or location can lead to a collective action and ultimately lead the process of cooperation and development. A collective action cannot happen unless there is a good reserve of social capital (Onyx & Bullen, 2005). Social capital is an important resource for individuals and can influence their potential to take action and the quality of their life (Coleman, 1998). Social capital is mostly perceived to be based on sociocultural factors and its recognition as a type of capital, both at macro-management and at organization and enterprise management levels, can create a new perception of sociocultural systems and can help managers better direct their system (Rabiee & Sadeghzadeh, 2011). Wickellen argues that, in addition to economic factors like market advantages and capital that affect entrepreneurship, non-economic factors (e.g., the network of social relations) are also involved in entrepreneurship so that social capital as a social phenomenon drives creativity and ideation and facilitates innovative and risk-taking behaviors as major entrepreneurial indices (Coleman, 1998). Social capital is of particular importance for entrepreneurs. Entrepreneurs in social groups that enjoy high social capital are most probably in advantage within their networks, so they are more likely to recognize and exploit commercial opportunities more effectively (Rabiee & Sadeghzadeh, 2011).

2.3. Literature Review

The review of the literature shows that studies in Iran and other parts of the world have approached the topic of social capital, as well as entrepreneurial behavior and development, from different perspectives. In a study in Africa and China, Ado, Su & Wanjiru (2016) examined learning and knowledge transfer and the interplay between culture and social capital. They employed structural, relational and cognitive indices to measure

social capital. Gelderman, Semeijn & Mertschuweit (2016) used the same indices to measure social capital. They argue that the cognitive aspect of social capital is more influential than the relational and structural aspects on the strategic performance of companies. Mair and Marti (2006) addressed employment creation by social entrepreneurship. They found that the variables of training, high educational level, job experience, and financial support were effective in the extent and development of businesses (entrepreneurship). Yoon, Yun, Lee & Phillips (2015) used structural, cognitive, and relational indices to measure social capital and its impact on entrepreneurship. Their findings showed the positive effect of social capital on entrepreneurship development. Maden (2015) focused on personality characteristics of entrepreneurial women and the motives driving their decisions to start businesses in Turkey. They reported similarity among entrepreneurial women with respect to their personality characteristics (specifications, motives, challenges, and support). Also, it was found that the determined women had a stronger and more innovative mind and could take advantage of the unique opportunities in their business environments. The study of Nasrolahi & Jalilvand (2014) on the assessment of the social capital impact on women entrepreneurship indicated that social capital in structural, relational and cognitive aspects had a significant and positive effect on rural women's entrepreneurship. Likewise, Kwon, Heflin & Ruef (2013) found that people in societies with higher levels of social capital are more tended towards group cooperation than those in societies with lower levels of social capital. In Australia, Cramb (2006) found a significant relationship between social capital and educational level. Christoforou (2005) reported the significant effect of such factors as marital status, age, income, occupational status, unemployment, and income injustice on social capital. Similarly, Poon, Thai & Naybor (2011) emphasized the strong effect of social capital on women's entrepreneurship. According to Yohanes, Zainul & Kholid (2017), social capital and entrepreneurial orientation are very influential on business strategies. Gulumser, Levent, Nijkamp & Poot (2012) consider social capital a supplement of natural and human capitals in the process of rural development. Meanwhile, social capital plays a major role in rural development, especially entrepreneurship, with the emphasis it has on networking, trust, and communications inside a society. Madriz, Leiva & Henn (2018) reported that human and social capitals were positively related to the tendency towards being an entrepreneur. In a study in China, Echtner, Brent-Ritchie & Charlotte (2011) focused on the effect of social capital on tourism entrepreneurship and reported its significant impact on business and entrepreneurship development. Bruynis, Goldsmith, Hahn & Taylor (2001) argue that mutual trust among the members of a cooperative partially determines their development and promotion. In their study of the relationship between social capital and entrepreneurial intention of agriculture students, Shakiba, Hejazi & Hosseini (2016) concluded that among different aspects of social capital, the structural aspect had a significant, positive relationship with entrepreneurial intention.

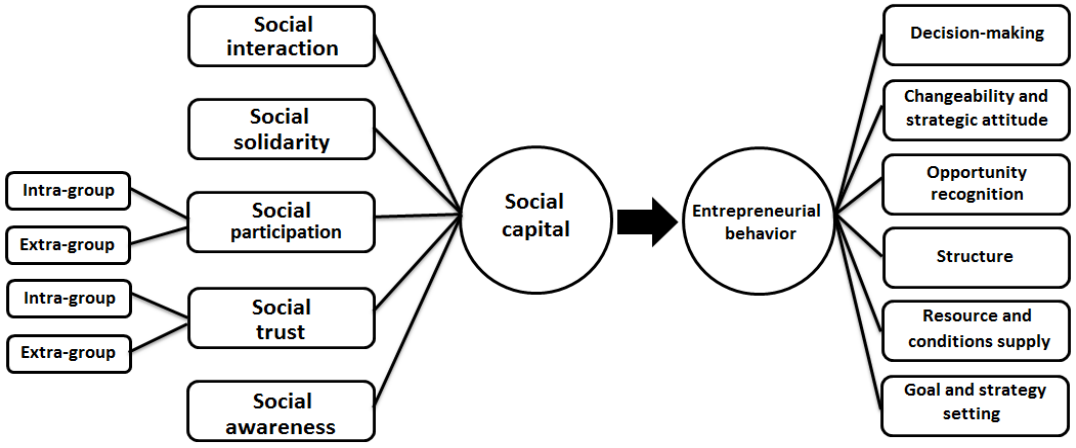

Figure 1. The conceptual model of the impact of social capital and its aspects on entrepreneurial behavior among the members of rural women cooperatives

(Source: Research findings, 2018)

Karami & Alibaygi (2015) revealed a significant relationship between shared vision and social capital indices (social trust, norms, and networks) in the development of agricultural entrepreneurship and also a significant relationship between social trust, norms, and networks in the development of agricultural entrepreneurship. According to Rabiee & Sadeghzadeh (2011), the structural aspect of social capital had the strongest and the cognitive and relational aspects had the weakest effect on entrepreneurship. According to what was described above and given the importance of social capital in developing cooperative entrepreneurship, the question arises as to whether social capital in cooperatives, especially in rural women cooperatives, is effective in the display of entrepreneurial behavior or relevant activities. The answer to this question can play a significant role in accomplishing the goals of cooperatives. On the other hand, the availability of huge active female human resource at different age and educational levels across the province of Mazandaran makes it imperative to evaluate social capital in cooperatives, especially in women cooperatives. Thus, the present study of rural women cooperatives aimed to investigate the social capital at the disposal of the members of rural women cooperatives and explore the impact of social capital and its aspects on their entrepreneurial behavior across Mazandaran province. The conceptual model of the research (Figure 1) was developed based on the literature review, research background, and research objectives.

3. Research Methodology

3. 1. Geographical Scope of the Research

The present study was carried out on 11 rural women cooperatives in five counties of Ramsar, Noor, Amol, Sari, and Behshahr in Mazandaran province, Iran. The province of Mazandaran with the capital city of Sari is located in the north of Iran on the southern coast of the Caspian Sea. The province contains 22 counties and is one of the crowded provinces of Iran. It neighbors the provinces of Golestan, Semnan, Tehran, Alborz, Qazvin, and Guilan (Figure 2). Thanks to its special climatic location, high climatic diversity, high annual precipitation, and the proper distribution of the precipitation across the plains and crops, Mazandaran has very fertile arable lands so that it has traditionally been a major pillar of agriculture and food supply of Iran.

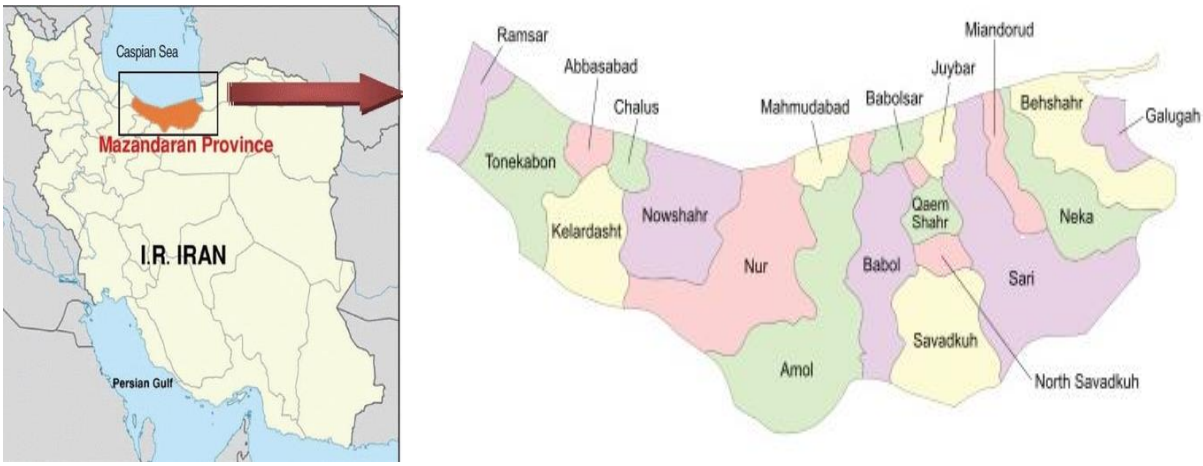

Figure 2. The map of Mazandaran province and its counties

3. 2. Methodology

The study was a descriptive survey. The statistical population was composed of 1396 members of 11 active rural women cooperative (with the minimum working years of three) in Mazandaran province. They were located in five counties of Ramsar (1 cooperative; 222 members), Noor (1 cooperative; 287 members), Amol (2 cooperatives; 364 members), Sari (4 cooperatives; 136 members), and Behshahr (3 cooperatives; 387 members) (N = 1396). According to Krejcie and Morgan's, 302 members were selected as the sample and it was increased to 320 participants to improve the accuracy (Table 1).

Table 1. The selected sample size within the statistical population
(Source: Research findings, 2018)

County	Cooperative name	Number of members	Sample size
Ramsar	Shasta	222	48
Noor	Izdeh	287	62
Amol	Dashtsar	182	39
	Koukandeh	182	39
Sari	Refah	30	7
	Kosar	31	7
	Mehr	30	7
	Golbahar	45	10
Behshahr	Tirtash	338	73
	Kejal Hosseinabad	29	6
	Ailin	20	4
Total	11	1396	302

3.3. Variables and indices

The research instrument was a self-designed questionnaire to measure social capital in five aspects with 67 items on a five-point Likert scale ranging from very high (5) to high (4), moderate (3), low (2), and very low (1). The aspects of social capital included social interaction (14 items), social solidarity (8 items), social participation (6 items for intra-group participation and 9 items for extra-group participation), social trust (5 items for intra-group trust and 11 items for extra-group trust), and social awareness (14 items). The entrepreneurial behavior of rural women was measured with 30 items on a five-point Likert scale ranging from strongly agree (5) to strongly disagree (1) in six aspects of decision-making (4 items), changeability and strategic attitude (7 items), opportunity recognition (5 items), structure (2 items), resource supply (7 items), and goal and strategy setting (5 items). In total, the entrepreneurial behavior of women cooperative members was measured.

The validity of the research instrument was confirmed by a panel of experts. Its reliability was estimated by Cronbach's alpha at 0.921 for social capital (0.801 for social interaction, 0.708 for social solidarity, 0.729 for social participation, 0.829 for social trust, and 0.864 for social awareness) and 0.905 for entrepreneurial behavior (0.717 for decision-making, 0.822 for changeability and strategic attitude, 0.767 for opportunity recognition, 0.646 for structure, 0.776 for resource supply, and 0.659 for goal and strategy setting). After data were collected and classified, they were subjected to descriptive and inferential statistics in the SPSS software package. Also, the LISREL software package was employed to derive the structural equations model and determine the extent to which social capital and its aspects influence rural women's entrepreneurial behavior. Structural equations modeling (SEM) is capable of analyzing the role of latent variables and is used for multivariate analysis and causal interpretation to scrutinize the linear relationships between latent variables and observable variables. In its standardized form, it is ensured that the latent variables are standardized and the scale of the observable variables is retained. The main steps of the LISREL analysis include model designing, data collection for model testing, model estimation, model assessment, and model modification. To assess the fit of the structural model, the present study used the indices of χ^2, non-normed fit index (NNFI), incremental fit index (IFI), comparative fit index (CFI), root mean square error of approximation (RMSEA), and root mean square residual (RMR). Since there is no precise criterion for these indices, it is generally accepted that the model is appropriately fitted if χ^2 is not significant, IFI, NNFI, GFI, and CFI are >0.90, RMSEA is <0.08, and RMR is <0.10 (Shook, Ketchen, Hult & Kacmar, 2004; Baumgartner & Homburg, 1995).

4. Research Finding

4. 1. Demographic characteristics

According to the results, the average age of the respondents was 35.48 years with the maximum and minimum of 60 and 20 years, respectively. With respect to the educational level, 34.1 percent were at the high-school level and 11.6 percent had a bachelor's degree or higher. Among the participants, 57.2 percent were married. Most responding women (65.3 percent) have been a member of cooperative for 1-5 years. The income status of the households showed that most women (59.1 percent) had an income of less than 15 million IRR[1].

۱. Iranian Rials = 0.000024 USD

4. 2. Ranking of social capital and entrepreneurial behavior aspects

To calculate the social capital index of entrepreneurial behavior among respondents, the sum of the scores of the items for each aspect was considered as the final score of that aspect. Since the aspects differed in the number of pertaining items, the ranked mean was used to make them comparable. According to the coefficient of variations listed in Table 2, the first and last ranks were assigned to social interaction and social awareness with the numerical values of 0.13 and 0.21, respectively. The findings about the ranking of entrepreneurial behavior aspects revealed that the first and fifth ranks were related to resource supply with the lowest coefficient of variations of 0.17 and structure with the highest coefficient of 0.32, respectively.

Table 2. Ranking of the aspects of social capital and entrepreneurial behavior
(Source: Research findings, 2018)

Index	Item	Ranked mean	Standard deviation	Coefficient of variations	Rank
Social capital	Social interaction	3.97	0.53	0.13	1
	Social solidarity	3.11	0.59	0.19	4
	Social participation	3.08	0.49	0.16	2
	Social trust	3.44	0.54	0.16	3
	Social awareness	3.15	0.66	0.21	5
Entrepreneurial behavior	Resource and conditions supply	3.20	0.55	0.17	1
	Changeability and strategic attitude	3.21	0.60	0.19	2
	Goal and strategy setting	3.24	0.65	0.20	3
	Decision-making	3.03	0.80	0.26	4
	Opportunity recognition	2.77	0.78	0.28	5
	Structure	2.69	0.86	0.32	6

4.3. Social capital level and entrepreneurial behavior among the studied rural women: A qualitative perspective

Social capital level and entrepreneurial behavior were assessed in four levels from low to very high. Most women assessed their social capital level to be at a moderate or high level (Table 3), implying its generally satisfactory status. This holds true for entrepreneurial behavior too so that it was assessed to be appropriate and good for most rural women.

Table 3. Level of social capital and entrepreneurial behavior among rural women
(Source: Research findings, 2018)

Factor	Assessment level	Frequency	Frequency percentage	Cumulative frequency percentage
Social capital	Low	55	17.2	17.2
	Moderate	99	30.9	48.1
	High	104	32.5	80.6
	Very high	62	19.4	100
Entrepreneurial behavior	Low	63	19.7	19.7
	Moderate	96	30.0	49.7
	High	102	31.9	81.6
	Very high	59	18.4	100

4. 4. Impact of social capital on entrepreneurial behavior of rural women

As can be observed in Figure 3, social capital with a path coefficient of 0.90 was significantly influential on entrepreneurial behavior of rural women cooperative members (t-value = 12; Sig. = 0.000). According to the results of social capital aspects, the most influential aspect was found to be intra-group social participation (path coefficient = 0.84). The second and third most influential aspects were intra-group social trusts (path coefficient = 0.74) and social solidarity (path coefficient = 0.68), respectively. Among the aspects of entrepreneurial behavior, goal and strategy setting (path coefficient = 0.80) and changeability and strategic attitude (path coefficient = 0.75) were found to be the most

important. The structural equation of the impact of social capital on rural women's entrepreneurial behavior was formed as below:

$$Y = 0.90(X_1), \text{Error var} = 0.48, R^2 = 0.82$$

Standard error = 0.13
t-value = 12.00

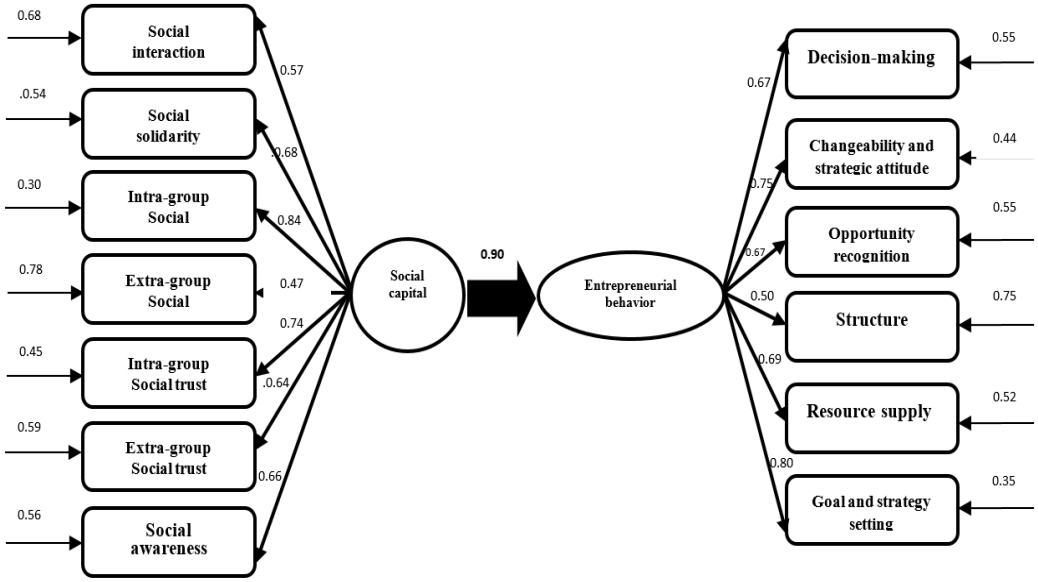

Figure 3. Structural function model of the impact of social capital on entrepreneurial behavior of rural women

Table 4. Model fit indices
(Source: Research findings, 2018)

Fit index	Estimated value
χ^2/df	2.87
RMSEA (Root mean square error of approximation)	0.016
GFI (Goodness of fit index)	0.920
Standardized PMR	0.012
NFI (Normed fit index)	0.980
NNFI (Non-normed fit index)	0.980
CFI (Comparative fit index)	0.971

Table 4 presents the values derived for the fit indices. Their optimal values confirm the results and the derived model.

To figure out which aspect(s) of social capital could influence the display of entrepreneurial behavior among rural women to a greater extent, separate calculations were performed. Figure 4 depicts the impact of social capital on entrepreneurial behavior of rural women separately. According to the results, intra-group social participation (p = 0.91) and social solidarity (p = 0.84) were most influential. Table 5 tabulates the t-values and significance levels of social capital aspects.

Table 5. The t-value and significance level for social capital aspects

Aspect	Dependent variable	t-value	Significance level
Social interaction	Entrepreneurial behavior	2.65	0.000
Social solidarity		4.72	0.000
Intra-group social participation		2.75	0.000
Extra-group social participation		2.77	0.000
Intra-group social trust		4.29	0.000
Extra-group social trust		3.53	0.000
Social awareness		2.84	0.000

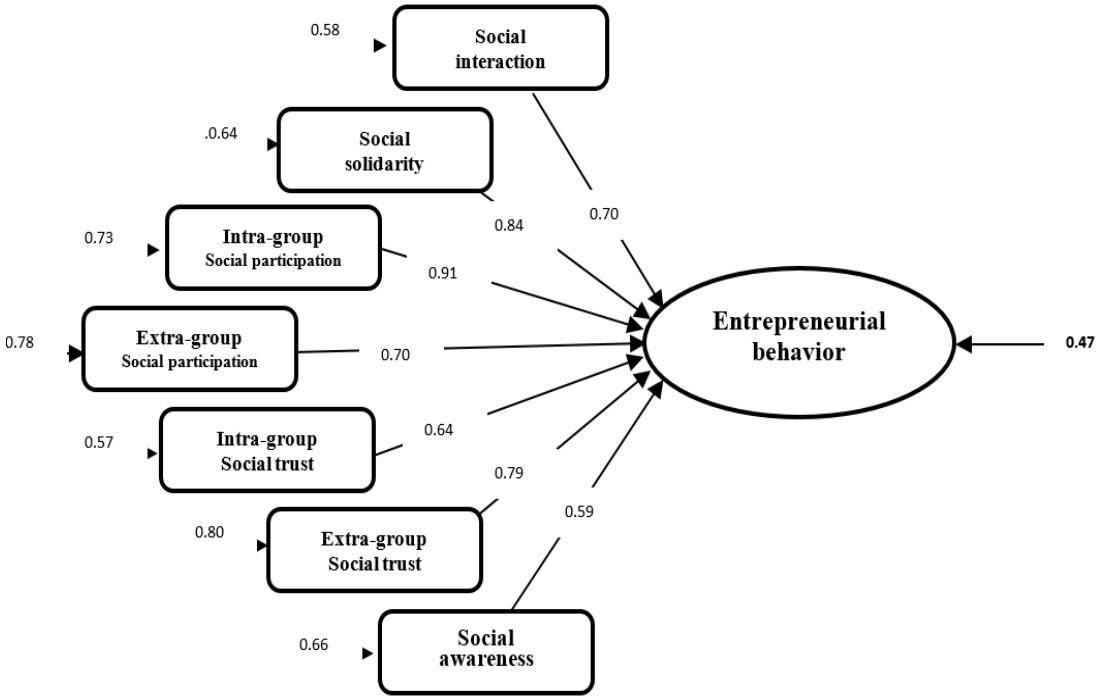

Figure 4. Impact of individual social capital aspects on entrepreneurial behavior of rural women
(Source: Research findings, 2018)

The indices presented in Table 6 confirm the optimal fit of the model. The structural equation of the model is derived as below:

$$Y = 0.70(X_1) + 0.84(X_2) + 0.91(X_3) + 0.70(X_4) + 0.64(X_5) + 0.79(X_6) + 0.59(X_7)$$

$$\text{Errorvar} = 1.00,\ R^2 = 0.68$$

Table 6. Model fit indices
(Source: Research findings, 2018)

Fit index	Estimated value
χ^2/df	3.05
RMSEA (Root mean square error of approximation)	0.066
GFI (Goodness of fit index)	0.910
Standardized PMR	0.042
NFI (Normed fit index)	0.951
NNFI (Non-normed fit index)	0.940
CFI (Comparative fit index)	0.879

5. Discussion and Conclusions

Today, to tackle the challenge of unemployment, it is of paramount importance to consider the training of entrepreneurship. Entrepreneurship is a major source of economic growth, innovation, product/service quality promotion, economic competition, and social mobility in communities, especially in rural areas. To supply the livelihood of rural people in general and rural women in particular, more entrepreneurs are required in rural areas so that, in addition to creating small rural employment, this can greatly contribute to rural development. Therefore, a major concern about rural women's entrepreneurship is how to promote entrepreneurial behaviors among them. Social capital is a major factor underpinning the development of entrepreneurship and entrepreneurial behavior among women. Hence,

given the importance of entrepreneurial behavior among people, especially among rural women, to create job opportunities in order to meet rural people's livelihood, the present research analyzed the effect of social capital aspects on entrepreneurial behavior of women in rural cooperatives in Mazandaran province.

The qualitative assessment of social capital level showed that the social capital of female members of the cooperatives was at a moderate and high level. Overall, it was satisfactory. This result holds true for the level of entrepreneurial behavior among women, too, so that the entrepreneurial behavior of most rural women was at a suitable and good level. This implies that the required conditions are in place for the entrepreneurial activity of cooperative members. According to the ranking of aspects and their role in determining entrepreneurial behavior, helping women to recognize opportunities and make suitable decisions can be effective in strengthening and developing entrepreneurial behavior.

The results reveal that social capital has a significant influence on entrepreneurial behavior of rural women who are cooperative members. The high value of path coefficient (0.9) implies the strong positive effect of social capital on rural women's entrepreneurial behavior. This means that the stronger the social capital of an individual is, the stronger the entrepreneurial behavior of the individual will be. Hence, the improvement of social capital is an effective factor that should be given serious consideration in the context of entrepreneurship. Our findings are supported by Yoon et al. (2015), Nasrolahi & Jalilvand (2014), and Poon et al. (2011) who reported the positive impact of social capital on the development of entrepreneurship. Similarly, Echtnerat et al. (2011) pointed to the impact of social capital on tourism entrepreneurship. Shakiba et al. (2016) reported the positive effect of the structural aspect of social capital on entrepreneurial intention, too. According to the results, the intra-group social participation is the most important aspect of social capital with the strongest impact on rural women's entrepreneurial behavior. This is consistent with the study of Gulumser et al. (2012) according to which social capital plays a key role in entrepreneurship by emphasizing networking, trust, and relationships inside a community. In this respect, Kwon et al. (2013) argue that individuals with stronger social capital exhibit stronger intention for participation in groups.

The results show that intra-group social trust in cooperatives is less influential than other aspects on rural women's entrepreneurial behavior. This finding implies that to improve social capital and contribute to the display of entrepreneurial behavior at a higher level, it is necessary to foster trust among people. Mohammadi Elyasi et al. (2011) emphasized the effect of social capital on recognizing entrepreneurial opportunities. Karami & Alibaygi (2015) reported a significant relationship between social trust and agricultural entrepreneurial development.

Among different aspects of social capital, extra-group social participation was less effective in determining social capital. The results reveal a relatively low level of communication and participation of women in the activities and affairs related to the outside of the cooperatives (extra-association). The enhancement of this aspect can greatly contribute to increasing women's social capital.

According to the results about the high impact of social capital on the entrepreneurial behavior of rural women who are members of cooperatives, the following recommendations can be drawn to promote social capital and rural women's entrepreneurial behavior:

- Given the low share of extra-group social participation in determining the level of social capital, it is recommended to improve this aspect by establishing regular communications among cooperatives and other institutions and associations related to rural affairs such as other cooperatives, especially the cooperatives that are successful in entrepreneurship.
- The results show that intra-group social trust in cooperatives is less effective than other aspects in rural women's entrepreneurial behavior. Thus, it is recommended to hold regular meetings among the members of cooperatives and clarify the activities of cooperatives in order to improve social capital and lay the ground for taking entrepreneurial activities.
- Given the low effect of structural aspects on opportunity recognition and decision-making versus other aspects of rural women's entrepreneurial behavior, it is recommended to the CEOs and board members of cooperatives to hold training workshops and courses in entrepreneurship or take other actions to enhance

women's awareness, such as the publication of journals and brochures among cooperative members. This will familiarize members with entrepreneurial activities and motivate them to take entrepreneurial behavior.

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بررسی تأثیر مؤلفه های سرمایه اجتماعی در رفتار کارآفرینانه زنان عضو تعاونی‌های روستایی استان مازندران

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چکیده مبسوط

۱. مقدمه

امروزه، مقولهٔ کارآفرینی به سرعت در حال گسترش است و رفتار کارآفرینانه به نیازی فراگیر و ضروری برای تمامی افراد و سازمان‌ها تبدیل شده است.. بخش تعاون از جمله بخش هایی است که با هدف کارآفرینی تشکیل شده و بستر مناسبی برای پرورش و پیشرفت کارآفرینان است، این بخش می‌تواند روحیه کارآفرینی را درافراد تقویت کرده و درشکوفایی ویژگی‌های مثبت آنان ، نقش به سزائی داشته باشند. اتخاذ راهبرد کارآفرینانه، موجب بهره‌وری کلیهٔ عوامل تولید و ارتقای قابلیت‌های سازمانی وبهبود شاخص‌های رقابتی تعاونی‌ها می شود. شرکت‌های تعاونی زنان رو ستایی از این مو ضوع مستثنی نیستند. زنان نقش مهم و رو به رشدی در زمینهٔ توسعهٔ کسب و کار به عهده گرفته‌اند و کارآفرینی زنان موضوع خاص و مورد توجه جوامع امروزی ا ست. شرکت‌های تعاونی رو ستایی زنان نیز به نوبهٔ خود به واسطه اهدافی همچون اشتغالزایی برای زنان جویای کار، مشارکت درامر تولید محصولات کشاورزی و دامی، خدماتر سانی به زنان رو ستایی کم درآمد، ا ستفاده ازتسهیلات بانکی و سرمایه‌گذاری برای زنان روستایی به صورت مستقیم و غیرمستقیم، نقش بسزائی در تو سعه کارآفرینی دارند. در این را ستا برر سی تاثیر و توجه به عواملی که بتواند در بروز رفتارکارآفرینانه زنان عضو تعاونیها تاثیر داشته با شد، ضروری به نظر می ر سد. از جمله این عوامل مو ضوع سرمایه اجتماعی است. در این راستا تحقیق حاضر ضمن بررسی ابعاد و میزان سرمایه اجتماعی و رفتار کارآفرینانه در بین اعضای تعاونی‌های زنان روستایی، به بررسی و واکاوی تأثیر سرمایه اجتماعی بر رفتار کارآفرینانه در بین اعضاء تعاونی‌های مذکور پرداخته است.

۲. مبانی نظری تحقیق

سرمایه اجتماعی همچون مفاهیم سرمایه فیزیکی و سرمایه انسانی به ویژگی‌های سازمان اجتماعی از قبیل شبکه‌ها، هنجارها و اعتماد اشاره دارند که هماهنگی و همکاری برای کسب سود و بهره گیری از منافع را تسهیل می‌کنند. سرمایهٔ اجتماعی عنصری مطلوب برای انجام همکاری‌های درون گروهی ا ست و هر چه میزان آن بالاتر با شد دستیابی گروه به اهداف خود بهتر انجام می‌گیرد، بطوریکه سرمایهٔ اجتماعی در یک منطقه یا مکان می‌تواند به کنش جمعی منجر شده و در نهایت فرآیند مشارکت و توسعه را پیش ببرد. بر این ا ساس، سرمایه اجتماعی می تواند از عوامل موثر در بروز کارآفرینی و رفتار کارآفرینانه باشد. کارآفرینی یک الگوی رفتاری است که می‌توان آنرا به مردم آموزش داد تا یاد بگیرند که چگونه به طور کارآفرینانه رفتار کنند. رفتار کارآفرینانه در برگیرنده تمام فعالیتهای افراد در شناسایی، ارزیابی و بهره‌برداری از فرصت‌های کارآفرینی است. افراد و گروهها، با سرمایهٔ اجتماعی بالاتر به منابع و اطلاعات بیشتری دسترسی دارند که می‌تواند در روند تشکیل و توسعهٔ فرایند کارآفرینی

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تأثیرگذار باشد. از این رو سرمایهٔ اجتماعی اهمیت ویژه‌ای برای کارآفرینان دارد و کارآفرینان مستقر در گروه‌های اجتماعی که دارای سرمایهٔ اجتماعی بیشتری هستند، در وضعیت‌های سودمند بیشتری در داخل شبکه‌ها قرار می گیرند، لذا احتمال بیشتری دارد که بتوانند به طور مؤثر فرصت‌های تجاری را تشخیص داده و از آن بهره گیرند.

۳. روش تحقیق

تحقیق حاضر از نوع توصیفی پیمایشی بوده است. جامعهٔ آماری تحقیق شامل ۱۳۹۶ عضو ۱۱ تعاونی زنان روستایی(پنج شهرستان رامسر، نور، آمل، ساری و بهشهر در استان مازندران) بود که ۳۲۰ نفر از آن‌ها بر اساس جدول کرجسی مورگان به عنوان حجم نمونه انتخاب و نمونه گیری طبقه ای با انتساب متناسب انجام شد. جمع‌آوری اطلاعات با استفاده از پرسشنامهٔ محقق ساخته‌ای بود که از دو بخش اصلی سرمایه اجتماعی در پنج بعد و رفتار کارآفرینانه در شش بعد تشکیل شده بود. روایی ابزار سنجش با استفاده از نظرات اساتید راهنما و مشاور و پایایی آن از طریق محاسبهٔ ضریب آلفای کرونباخ به دست آمد که برای سرمایه اجتماعی ۰/۹۲۱ و رفتار کارآفرینانه ۰/۹۰۵ محاسبه شد. به منظور تجزیه و تحلیل داده‌ها در دو بخش آمار توصیفی و استنباطی از دو نرم‌افزار SPSS (۲۱) و Lisrel (۸/۵) استفاده گردید.

۴. یافته‌های تحقیق

با توجه به نتایج به دست آمده از تحقیق، بعد تعامل اجتماعی از ابعاد سرمایه اجتماعی و بعد تأمین منابع و شرایط از ابعاد رفتار کارآفرینانه در اولویت رتبه بندی قرار گرفتند. ارزیابی کیفی سطح سرمایه اجتماعی و رفتار کارآفرینانه نشان دهنده سطح مناسب و رضایت بخش آنها در میان زنان روستایی عضو تعاونیها بود. براساس ضریب مسیر محاسبه شده در معادلات ساختاری(۰/۹) ، سرمایه اجتماعی تاثیر بسزایی بر رفتار کارآفرینانهٔ اعضای تعاونی‌های زنان روستایی دارد. همچنین نتایج معادله ساختاری نشان داد که، مشارکت اجتماعی درون گروهی بعنوان مهم‌ترین بعد سرمایهٔ اجتماعی، بیشترین تأثیر را در رفتار کارآفرینانه زنان داشته است.

۵. بحث و نتیجه‌گیری

نتایج حاصله ازتحقیق، حاکی از تاثیر بسزا و بالای سرمایه اجتماعی بر رفتارکارآفرینانه زنان روستایی عضو تعاونیها بود.. بنابراین تقویت و بهبود سرمایه اجتماعی بعنوان یک عامل مهم و موثر در حوزه کارآفرینی، می بایست مورد توجه و تاکید قرار گیرد. در این راستا، بر اساس یافته های تحقیق، گسترش و توسعه زمینه مشارکت گروهی، ارتباط مستمر بین تعاونی‌ها و دیگر نهادها و تشکل‌های فعال در عرصه روستایی از جمله تعاونی‌های موفق، جلسات مداوم در راستای شفاف سازی فعالیت‌ها تعاونی از جمله مواردی است که می تواند در بهبود سطح سرمایه اجتماعی زنان عضو تعاونیها تاثیرگزار باشد. همچنین افزایش آگاهی زنان در شناسایی فرصتها و تصمیم گیری مناسب از طریق برگزاری کارگاه و دوره‌های آموزشی و کاربردی کارآفرینی می تواند زمینه تقویت و توسعه رفتارهای کارآفرینانه را مهیا سازد.

کلمات کلیدی: سرمایه اجتماعی، مشارکت اجتماعی، رفتار کارآفرینانه، تعاونی روستایی زنان.

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Analysis of the Effects of Housing Quality on Health (Physical and Mental) of Villagers (Case Study: Villages of Shandiz District in Binaloud County)

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Abstract

Purpose- Quality and living conditions of humans are heavily reliant on their housing. A suitable shelter will prevent illness and damage to a large extent and plays a crucial role in promoting people's mental and physical condition. This study seeks to analyze and evaluate the effects of improving the quality of housing on promoting the physical and mental health of villagers.

Design/methodology/approach- This is an applied research that adopts a descriptive-analytical method. The main data collection instrument is a questionnaire. The studied area is Shandiz district in Binaloud County, Khorasan Razavi Province. The statistical population of this research consists of 11 villages, which according to 2017 Census accommodated 5921 households. The sample size was estimated at n=190 using the Cochran formula with an error of 0.07%. Data gathering tool comprised interview, field questionnaire and observation. The questionnaire items were designed based on a Likert scale. For the analysis of data, descriptive and inferential statistics (Pearson correlation test, single sample t-test and regression) were used in the SPSS software. The villages were ranked by WASPAS analysis (the weighing in WASPAS analysis is based on entropy).

Findings- The results of Pearson correlation test showed that the quantitative (0.549), physical (0.513), the socio-cultural (0.505), and the environmental (0.522) dimension were significantly correlated with mental- psychological health. With regard to the physical health, there was only a direct and weak relationship with the physical dimensions (0.149). As for the health variable, the quantitative (0.651), physical (0.623), socio-cultural (0.605) and environmental (0.596) dimensions had a strong direct relationship, meaning that as dimensions of the quality of housing improves, the health of villagers is affected and their physical and mental health is promoted. The results of pathway analysis showed that among independent variables (quantitative, physical, socio-cultural and environmental variables) the quantitative dimension had the highest effect on dependent variable (physical and mental health) with a value of 0.564.

Practical implications- According to the results, improving the quality of housing will promote the mental and psychologic health of villagers.

Originality/value- Selecting a suitable rural housing model can definitely yield positive outcomes for promotion of health standards both in physical and mental dimensions.

Key words- Rural environment, Mental and physical health, Housing quality, Rural areas, Shandiz District.

Paper type: Scientific and Research.

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1. Introduction

As a safe and suitable shelter, housing has undergone a host of social, economic, political, cultural and religious changes over time and has been subject to disparate patterns. On the other hand, it can be regarded as a capital good and a social value that can reinforce sustainability of the community and alleviate social harms (Fazelnia, Taghdisi & Mulla Novrouzi, 2014). Among these changes of pattern, there have been enormous changes in the quality of materials, design, and architecture and quality standards, which have directly influenced the living conditions of inhabitants, along with parameters such as the mental health of people. Given the nature of the village and its social, economic, cultural and geographical contexts, the villagers have a particular internal and physical organization with respect to the type of residence and diversity of lifestyle. Moreover, the rural environment represents a coherent environment with an architecture that fits with the landscape. However, today housing and this environment have been the subject of growing changes, either due to new construction or the rehabilitation and renovation of villages (Ghasemi Ardhayi & Rustamalizadeh, 2012). Housing plays a crucial role in family stability, social and economic growth, improvement of safety, promotion of culture and spiritual tranquility of family members (Asayesh, 1996: 67 quoted from Fazlali, Pourtaheri & Roknoddin Eftekhari, 2017). Therefore, environmental psychologists have adopted a variety of direct and indirect perspectives to study the effects of the physical environment on human behavior and his sense of well-being (Saegert & Winkel, 1990). Those features of the environment that directly influence mental health include congestion and density of space, noise pollution, air conditioning quality, building lighting, etc., which, in addition to exerting direct and indirect effects on an individual's physical condition, can influence his mental health. For example, high density in residential environments leads to reduced social support of house members, which in turn exacerbates psychological distress (Evans, 2003). In addition to mental health, the built environment coupled with health factors such as separation of spaces, management of clean water and air conditioning can also have an undeniable impact on health. Meanwhile, housing represents the most important built environment where humans spend a significant part of their life. In today's world, housing and shelter have overshadowed many aspects of human life. In addition to the economic aspect of housing, which consumes a part of the household's monthly income, it is linked to a diversity of psychological and social outcomes. It can provide a sense of security and comfort while spurring fundamental transformation in the field of social relationships, among other things. (Maleki & Sheikhi, 2009). The psychological analysis of human behavior in relation to the physical environment in the context of the psychology of the environment has prompted psychologists to look at the effects of the physical environment on human behavior and health (Tabatabayan & Tamanayi, 2012). The epidemiologic findings exhibit a strong correlation between housing status and its health effects on human health. On the other hand, many studies suggest that overall improvements in housing conditions can wield a significant impact on health promotion, especially mental health (Golpaygani, Khanjani, N. & Zeidabadi, 2013).

In the meantime, rural spaces are no exception to this rule. Housing, as the pillar of rural texture, reflects the quality of places and environments, the impact of economics and livelihoods, traditions and conventions governing rural communities, so that success in this field largely depends on the recognition of this quality (Sartipipour, 2012). The basic functions of rural settlements as bio-centers are to meet the basic needs of life, including place pf residence, activity and employment, communication with others, collective life, education, rest and comfort (Saeidi, 2010). Regarding the linkage between housing and other economic, social, and health dimensions of its inhabitants, any planning for the improvement of rural housing in Iran should take this connection into account and obtain exhaustive information from the geographical areas of Iran (Raheb, 2014). Planning based on a profound perspective can promote the health status of villagers, which is seen as a public good and defined as "complete physical, psychological, economic and social well-being" (Hemmati, Sadeghian & Sabeti, 2013). Although people spend a considerable portion of their life in a built environment called house, they are not aware of the direct impact of environmental factors and other houses in the neighborhood on physical and

mental health, especially psychological stress (Tabatabaiyan & Tamannaei, 2012). Considering that awareness of health indicators is one of the key dimensions of quality of life (Mohammadi, Ahmadi, Fathi Ashtiani, Zadfallah & Ebadi, 2013), identifying the effects of housing quality on mental health and well-being of the public, especially villagers, and promotion of a healthy life is essential. Shandiz district in Binaluod town represents one of the areas where a significant share of its housing has been renovated and rebuilt in recent years pursuant to the implementation of rehabilitation plans, improved quality of housing standards and the growing demand of villagers. Therefore, the primary question of the research is "Is there a relationship between the health of villagers in rural areas of Shandiz district and their housing quality? And "Is there a difference between villages in terms of the quality of housing and psychological and physical health? This paper attempts to answer these primary questions based on documentary studies and field observations.

2. Research Theoretical Literature

Throughout the history of human life, especially in recent decades, the ever- increasing population growth has brought to the fore the issue of housing as a major economic and social issue. Meanwhile, access to affordable housing is of paramount importance for all urban and rural households, especially the poor and vulnerable strata of the society, who usually reside in rural areas (Ghadermarzai, Gemini, Jamshidi & Cheraghi, 2013). The shift of attention to rural areas and the attempt to revitalize and renovate the rural texture in its modern form (that is, the first experiences of the rehabilitation and rebuilding of old textures in cities and villages) began in the 1870s with the works of Hoosman in Paris. In general, the initial steps to revitalize and renovate old textures in cities, and consequently villages, should be sought in the efforts of European countries (Anabestani & Javanshiri, 2014). Globally, the quality of housing (for example rural housing) is evaluated with a variety of indicators such as: 1) desirable housing structure; 2) housing strength; 3) security; 4) safety, comfort and accessibility of residents to physical facilities in the neighborhood (comfort, convenience and health); 5) access to the nature and open green space; 6) Supply of facilities and equipment (essential housing infrastructure), and 7) proximity of the house to relevant land uses. In this context, the type of materials used in the construction of rural house is directly associated with the strength, safety and security of housing (Riyahi, Hajipour & Khoroghosloo, 2015). In Iran, in the years following the Islamic revolution, government policies to support agriculture, provide infrastructural services and invest in boosting manufacturing in villages have brought about economic, social and cultural changes, and subsequently physical changes in the villages on the one hand, and have paved the way for realization of rural planning and acceptance of new responsibilities, on the other hand (Quarterly Journal of Agricultural Promotion and Rural Development, 1991). The rural housing in Iran and interventions made to address relevant problems face a huge challenge in the course of implementing the "Special Plan for Rural Housing Improvement" between 2006 and 2008. The said project began with the selection of SENIOS consultants in each province of Iran. Advisors drafted rules and regulations for designing patterns that were in agreement with the climate, culture and livelihoods of each province. In many cases, there was an obvious reluctance on the side of villagers to adopt suggested patterns. In some cases, the designer's unawareness of rural mentality regarding the desired housing resulted in improper planning and stance about the aforementioned mental image (Zargar & Hatami Khanqahi, 2014).

What underlines the necessity of physical planning is the disorganized physical condition of rural areas and the undesirable quality of rural housing. The major problems in rural areas and the infrastructures required to deal with these deficiencies are the lack of a wastewater and surface water system, absence of essential networks and welfare services, increasing use of motor vehicles, failure to maintain agricultural land use, vulnerability of buildings and housing and damages inflicted by natural disasters (Pourtaheri, Ruknoddin Eftekhari & Abbasi, 2012). Additionally, since human societies, especially in the current age, are rife with various sources of stresses, a proper housing can provide a shelter for relaxation, revitalization and peace of mind, relieving mental and physical exertion of daily work, or preparing individuals psychological for further work (Pourmohammadi, 2015).

Environmental planners and researchers in the United States joined forces to establish decent living habits for the people in 1960s. Failing to account for

physiological, safety and psychological needs of people in the design and construction of residential spaces such as Pirot, Igve located in St. Louis, which led to the demolition of more than 43 residential complexes and 11 floors, sent out a serious warning to them. (Mahdavi Adeli, Doorkheez & Saeed, 2013). Upgrading and improving the quality of rural housing, building durable rural housing, preserving the identity of the domestic architecture in rural housing, considering the aesthetic aspect of rural landscape, constructing housing that meets the demands of villagers, adapting the housing structure with requirements of the today's life, shifting from the approach aimed at providing shelter for villagers to the one that seeks to develop rural housing, constructing green housing (Beyti, 2012), developing and promoting rural renovation initiatives and designing a suitable model, preparing the ground for an integrated and comprehensive development in villages and empowering villagers to participate in civil construction activities are the main objectives of this plan (Rezvani, 2011). They represent an effective step towards promotion of the mental health of villagers. In fact, given that humans (villagers) spend most of their time in indoor spaces (house), the house conditions and its construction or renovation style can wield huge influence on mental health. The place where people spend most of their daily hours (buildings or private houses) play a vital role in shaping their health and well-being. The people's health also has serious implications for the national economy of a country, so that people's residence, as healthy workforce, is one of the pillars of a dynamic economy. An unhealthy individual, far from being a producer, is unable to take care of himself or his relatives, and often ends up as an economic and security burden in society.

Health is a multidimensional concept, embracing diverse dimension including social (Wesali, Sam Aram, Esmaeili Tawil & Rasouli, 2016), economic, environmental, and psychosocial and physical aspects. For this reason, various definitions have been proposed for health, all of which emphasize the balance and integrity of the body and soul. People who are mentally healthy have several characteristics including: 1- self-acceptance and self-appreciation; 2- communication with others; 3- Fulfillment of the life needs and healthy expression of emotions (Tothounchi, Samani & Zandi Qashqaii, 2012). According to the World Health Organization (WHO), health is the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

In the charter of the World Health Organization, access to the highest standards of health is one of the fundamental rights of every human being regardless of his race, religion, political beliefs, economic conditions or social status (Rahimi, 2010).

In Webster's dictionary, health is defined as the condition of being sound in body, mind, or spirit, especially freedom from physical disease or pain. Avicenna posited that health is the nature or state in which the body organs function normally, which is the antithesis of disease (Mohseni Tabrizi & Navabakhsh, 2016). The World Health Organization also underscores three physical, psychological and social dimensions. Physical or biological health describes the proper functioning and optimal state of each body organ in perfect harmony with the rest of the members. According to the definition of the US Department of Health and Human Services, mental health refers to the state of successful functioning of mental processes, efficient activities, effective relationships with people, the ability to adapt to changes and new conditions (Samiei, Rafiee, Amini Rarani & Akbarian, 2010).

Elsewhere, the concept of mental health involves an inner sense of wellbeing, belief in one’s elf-efficacy, self-reliance, competition power, and self-actualization of intellectual and emotional potentials. Of course, given cultural differences, it is not possible to provide a comprehensive definition of mental health. A person who is mentally healthy can handle problems in a reasonable manner while havin a sense of satisfaction with life (Salimi, Azad Marzabadi & Abedi Darzi, 2010). Mental health is of paramount importance in that it is associated with the promotion of individual and social performance (Sadeghi, Zareipour, Akbari & Khan Beigi, 2011)

Different schools of thoughts have strived to explain how people perceive their behavior in the environment or in relation to the environment. The most important of these schools, which have wielded a profound impact on environmental and design theories, are Gestalt Psychology, the Comprehensive and Transactional Psychology, and Gibson's Ecology (Optic) Psychology (Matlabi, 2011). Gliem argues that human health depends on

the level of control not only on one's physical body, but also one social environment. Therefore, illness and health are shaped in accordance with our environment's desires and expectations as well as the degree of our compatibility with this environment (Farahmand, Khatami Sarvi & Mohammad Hasani, 2016). Over the past few decades, the relationship between social indicators and mental health has received growing scholarly attention. These indicators include life satisfaction, social support, social skills, family, parenting styles, social capital, quality of life, marital affairs (Feizi, Mesrabadi, Mohammadian & Agh Atabay, 2015). From the point of view of the Iranian authorities, the social health indicators are: absence of poverty, violence, sex discrimination, unemployment and ethnic-racial discrimination, population growth control, equality before the law, observance of the human rights charter, compulsory and free education until the end of the middle school, access to health services, security and freedom of speech, a sense of life satisfaction, insurance coverage for all people, fair distribution of incomes, and the legitimacy of government (Noorbala, 2011). Considering health as a concept influenced by a complex set of biological, psychosocial, cultural, economic, religious and environmental factors, it should be acknowledged that health is no longer the sole concern for medical practitioners, and it has received growing attention of all social scientists, sociologists and psychologists (Riyahi, Verdinia & Pourhossein, 2010). Experts from the World Health Organization have defined mental health as the ability to establish interactive and coordinated relationship with others, modify and amend the individual and social environment, and resolve conflicts and personal preferences in a logical and fair manner, arguing that mental health is not merely the absence of mental illness, but it reflects the capability to respond to a wide range of life experiences in a flexible and meaningful way (ibid., 87). According to WHO, in addition to the variables of age, gender, inheritance, lifestyle, local social structure, other factors such as the workplace and the individual's habitat, as well as the general socio-economic and cultural environment are involved in determining the health status of individuals. In other words, health is placed within a wide-ranging network of variables, and it is difficult to pinpoint their exact position as that may be the causes or the effect of other variables (Bani Fatemeh, Alizadeh Aghdam, Shahamfar & Abdi. 2014). Fiesa and Gootma (2005), in a study titled "a health function for sub-Saharan Africa," based on the Grasman's theoretical model, incorporated the social, economic, and environmental factors as inputs of the production system in the function (Bayati, Akbarian, Kavoussi & Sadraei Javaheri, 2012). According to the studies, the factors influencing the mental health of women and men and the impact of these factors may vary, so that only an econometric study would be able to reveal such distinctions (Mohammad Nejad & Ahmadi, 2014). Today, health outcomes have adopted a wider perspective and special attention has been allocated to determinants of non-medical health. This issue has also been reflected in the WHO definition of health. The WHO examines health systematically, defining it as a state of complete physical, mental and social well-being and the absence of disease along with the access to the highest standard of health available without any cultural, social, economic, or political discrimination. (Anabestani & Behzadi, 2013).

In 1992, the United Nations Health and Development Conference on the Health of Humans and the Residential Societies stated that all countries must meet the criteria for improving the quality of life and health by creating a safe and healthy environment, avoiding crowded residential areas, reducing air pollution, ensuring the availability of clean water and high quality environment and promoting the safety of working environments for all social groups (Tajdar, Rafiyan, M. & Taghvaei, 2010). Therefore, designing each residential unit in the village requires a comprehensive review of the geographic, climatic, biological and livelihood conditions of the rural community, population structure and rural construction system. Further, standards of designing rural homes, and most importantly, the effects of housing on the physical and psychological health of the villagers must be taken into account. This would be a time-consuming and costly endeavor, and calls for a thorough recognition of different dimensions of the villagers (Shafaei & Madani, 2011). For this reason, some countries have changed their approach to the conceptualization of health in recent years. The old approach was concentrated on diseases, while the new approach underscores health, performance and well-being. There are divergent views on space and the concept of health, because health can have a variety of medical, social, economic, psychological, and other dimensions (Hezarjeribi & Mehri, 2012).

According to the above, there is a significant relationship between health and the residence of human beings. Life in poor areas is associated with aggravated health conditions, so that life in undeveloped rural areas

is detrimental to health. In a study in Canada, Lolande sets forth four determinants of health: genetic and biologic factors; factors related to the lifestyle and behaviors; environmental factors such as housing, air pollution, and health services. The place of residence, as an indicator of socioeconomic status, is linked to health status. Elsewhere, the social model considers health as a set of factors associated with socio-economic, cultural, housing, and employment grounds (Sheikh 2009, p. 56, quoted from AFrakhteh & Afkar, 2012). Therefore, the role of housing policies in creating a healthy environment and therefore promoting individual health can be approached from two viewpoints. Firstly, providing a suitable residential environment, improving the health conditions in terms of light, space, ventilation, cooking, etc. Secondly, primary services and facilities in the residential area can be provided through comprehensive planning, which facilitates access to these centers (Pourmohammadi, 2015). The following figure shows the factors influencing the physical and mental health. As can be seen, the built environment is one of the major elements shaping the quality of physical and mental health (Figure 1).

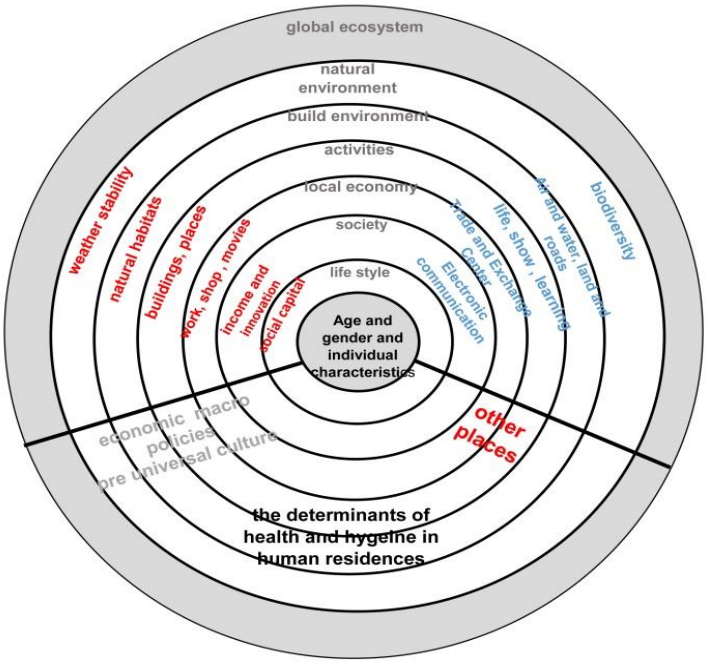

Figure 1. Different layers of factors influencing physical and mental health
(Source: Nastaran and Mirzai, 2014:43)

According to Locorbozie, both physical and mental needs of humans must be met with the spatial organization of housing, because decent and proper housing is an indicator of social welfare, whereas bad and poor housing begets adverse consequences such as deprivation, illness, and corruption of the youth (Boshagh, Seydaei & Jomeini, 2011) and compromises the health of the community. In recent decades, various theories have been set forth in this regard, including Ulrich's theory of stress reduction, according to which natural landscapes can have a soothing effect on stress and tension. Nonetheless, not only some landscapes are unable to mitigate tensions, but they can engender further stress and tension (Azamati & Zarghami, 2012). Chicago school represents a long-established tradition in urban sociology. Although it provides sociologists with crucial elements for analyzing social issues in the city, it clearly fails to consider important concepts such as gender and health. In contrast, the Los Angeles School offers new ideas and views about modern urban realities. This is a location-based approach and addresses key concepts such as health, contending that location has important ramifications for health and well-being (Garousi & Shamsuddini, 2014).

According to Moss and Dick, four indicators contribute to the establishment of therapeutic environments: body, home environment, extensive relationships and nature. In other words, besides all factors, the built environment including housing and residence can exert a great impact on health. Much like the human body, the home

environment has therapeutic features in physical and emotional states, especially cleanness, absence of harsh noises, a sense of control (which is engendered by the private space), security and comfort (by utilizing the elements of nature). According to psychological principles, the house design should not be too complicated and obscure, as it causes unnecessary tension and stress, or too simple and uniform, as it induces boredom and ultimately sensory deprivation (Saffarinia, 2011) (Figure 2).

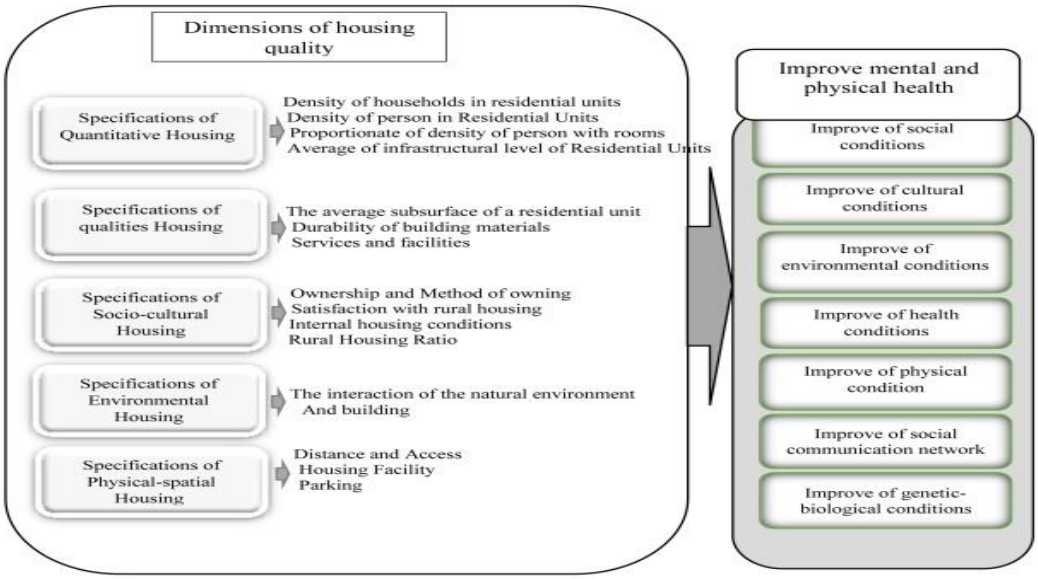

Figure 2. The Conceptual Model of Research: The Effects of Housing Quality on Mental and Physical Health

There is a growing body of research on mental and physical health of the villagers and the effects of various physical dimensions with each addressing the issue from a particular perspective; however, few studies have explored the effects of rural housing quality as a built environment on health status of inhabitants. Therefore, in the review of literature, we will discuss a number of studies that have explored the variables of this research (Table 1).

Table 1. Previous Research on the Quality of Housing and its Impact on Health
(Source: Research findings, 2018)

Researcher	Findings
Bagheri/Azemati 2009	Designing local green landscapes , Planning Urban Walkways, Constructing dense sections with residential, commercial and official zones, performing urban intermediate plans in the open spaces and free lands, Increasing the residents' physical and visual access to the nature by designing nature's art, Preparing socio-cultural and Commercial opportunities and entertainments in the section , Decreasing Automobile usage by equipping with public services such as local schools, developing public vehicle, promoting quality of public spaces in the local sections in proportionate to the users have considered as the stable approaches to promote public health and security in the urban environments.
Emamgholi 2013	There is a significant relation between human's general health and physical environment. As There is bilateral relation between human and environment, Either Architecture Quality effects on general health or people with better general health satisfy Architecture Quality more.
Garousi & Shamssoldini 2014	The cases that can expect the residents' health level : urban risks, access to urban facilities, Social Interactions and confrontation, responsibility against the zone and residents
Jahandar Lashaki & Ebrahimzadeh 2015	Residing adjacent to green landscapes causes to increase mental health during time. In spite of high building, green lands decrease improper mental effects.

Table 1.

Researcher	Findings
Evans 2003	The role of developing the min models is how the constructed environment can effect on mental health. It is possible that some people may be vulnerable in the constructed environments because focus of the poor and race minority isn't a random distribution in the weak environment and it is necessary to attend concept of high risk health environment.
Oswald & Werner Wahl 2004	Among mental aspects of house, satisfaction and control related to beliefs and house meaning have been considered that lead to the results related to direct health such as mental and physical diseases, applied limits and the results related to indirect health such as satisfaction and welfare. Environment and Health will be affected on future dynamism
Wells & Harris 2007	Social Support to construct these people's house causes to improve Psychological Distress and stress because of the relation between house quality and mental health.
Kim 2010	Neighborhood in the constructed spaces relates to the depression as it is decreased by increasing social relations in the quarter and it is increased by disordering in the quarter. The results suggest there are negative effects of a deprived quarter on depression and positive and negative relations between quarter forms and depression.
Fussell and Lowe 2014	Decreasing Interventions and instability policies in housing and prioritizing mental health have decreased anxious and stress in the people.
Keall et al 2010	House Quality has played important role in the health, safety and stability. Therefore, it is vital for public development to be assessed the health satisfactorily. Assessment can lead to improve housing by strong housing policies such as informing the consumer about housing bazaar and housing quality. International cooperation and standardizing assessment of approaches play important role in increasing housing quality. Therefore, some local factors such as weather, geography, culture, costumes and problems related to the buildings, constructional laws should be considered by assessing the approaches.
Archer 1t al 2016	It has been emphasized on taking a balanced approach about housing and solving problems of providing new house and recognizing importance of housing to preserve health, education and economy officially. Increasing amount of new buildings can improve general statue of housing. But it is necessary to be a balanced and comprehensive strategy to solve the problems and improve the poorest housing statue. Also, effective approaches should be taken to use national finance correctly to provide housing needs, preserve the health, education, entrepreneurship, economic investment to promote the older houses.
Border 2011	Conditions of amortized house effect on the health negatively. Health and Treatment Services spends 600millions pond. It leads to improve social section of housing but in 2008, less than 50 % of rent houses has been considered private. Councils have performed private sections together with local sections/ financial source successfully. But it is worried about future conditions of stocks of private housing section because the stocks have not been inserted in the new plan and it can lead to bad results on the health. As there are many central and local offices and departments in the housing, then it needs to coordinate between these groups and comprehensive leading to help local responsibilities to improve house availability.
Wilkinson 1999	The Weak Health leads to Homelessness, people who are in the weak health statue aren't able to provide their required house. Also, more unemployment increases risk of homelessness and the weak health is as result from homelessness. Also, people who live in the shared homes expose infectious diseases more. For two groups, the weak health leads to the weak individual health and the weak diet causes to decrease immunity against diseases.

A cursory look at the results of these studies reveals that they have chiefly focused on the impact of the quality and desirability of housing on promoting health and reducing stress and mental illness. However, most studies have focused on the environment and housing and its association with mental health with few examining physical health. In addition, most studies have been set in urban contexts and rural areas have been largely neglected.

3. Research Methodology

3.1 Geographical Scope of the Research

According to the goals of the research, a survey research method based on the questionnaire was adopted. In this descriptive-analytical research, first indicators and variables related to the quality of housing and physical and mental health are identified based on library studies and the theoretical framework. The variable of health, as the dependent research variable, was quantified in

form of two dimensions and seven indicators and the quality of housing, as the independent variable, was quantified in form of 4 dimensions and 16 indicators. Accordingly, the indices and variables of the research can be organized in two forms: indicators of housing quality and physical and mental health indices in rural areas (Table 2).

Table 2. Research Indicators

(Source: Safarinia, 2011; Garousi & Shamsuddini 2014; Bokharayi, Sharbatian & Tavafi, 2015, Mashayekhi, Sardoe, Amiranipour & Derini, 2016; Afrakhteh & Afkar, 2012; Moradi, Bustani & Hematifar, 2012; Pourgafar Maghfrati & Pourramazan, 2016; Anabestani et al, 2016; Ghadiri Massoum, Aligholizadeh Firoozjayee & Mehrali Tabar Firouzjayee, 2014)

Variable	Dimensions	Indicator	Components
Health (dependent)	Indicators of Mental and Physical Health	Social	Value of emission , security sense, welfare sense, happiness and security , social support, keeping identity, individual behavior such as stability, adaptability, tolerance, control of anger, social level, marital status, marital affairs, social skills, individual recognition, social credit, socio-economic statue, leadership
		Cultural	Hygienic Information, relations , life control, life style and behaviors
		Environmental	Environmental relaxation, life style, security, welfare on the quarter, satisfaction of weather
	Indicators of Physical Health	Hygienic	Resistance against diseases, amount of effecting by the diseases, number of patients in the house, number of times of affecting in a year
		Physical	Physical disabilities, Physical actions and the old
		Infrastructural	Rural health insurance, access to the physician, satisfaction of insurance and hygienic services
		Genetic-biologic	Age, gender , hereditary attributes
Housing Quality (Independent)	Specifications of Quantitative Housing	Density of households in Residential Units	Sufficiency and shortage of number of available Residential Units related to the available households
		Density of person in Residential Units	Average number of person in the residential Units
		Proportionate of density of person with rooms	Welfare sense, independence sense of persons in the Residential Units
		Average of infrastructural level of Residential Units	Average level of the Residential Units- average useful spaces of the Residential Units- area of yard
	Physical Dimension of housing infrastructure	Durability of construction materials	Qulitative and durability of construction materials
		Technical standards and constructional engineering	Technical standards and constructional engineering
		Services and facilities	Social welfare and relaxation aspects of the housing- Welfare Facilities include piping, electricity, telephone, bathroom, kitchen, emergency door
		Neighborhood of housing utilities	Observing neighborhood of usable spaces related to the housing, satisfying location of different usable spaces
		Housing Architecture	Conformity of architecture with cultural conditions, climatic comfort in architecture, Common Beauty on the housing architecture
		Components and ordering of rural housing parts	Present of reception room, bedrooms, sanitary room, open kitchen, work room
		Amount of Distance and Accessibility	Distance from the main road, distance from city, accessing to other places and required services
	Socio-cultural Specifications	Satisfaction of general conditions of the rural housing	Satisfaction of the household from the new architecture, Satisfaction of location, Satisfaction of residential area and number of rooms
		Ownership	Method of owning residential units , owner, rent, title deeds
		Conformity with cultural conditions of household and society	External awareness, separating the parent room from child room, closed kitchen

Table 2.

Housing Quality (Independent)	Natural Environment Specifications	Interaction of natural environment and building	Effect of climatic variables on the rural housing, Conformity of the housing with climate and weather, security against natural disasters, Observing spatial neighborhoods in the house (sanitary services from the kitchen,…)
		The housing pollutions	Neighbors' noise pollution (odor, air pollution, insects

3.2. Methodology

Shandiz district in Binalud town, Khorasan Razavi province, was selected as the study area. The statistical population of the study consisted of 11 villages located in Shandiz district. According to 2016 Census data, the selected villages accommodate 5921 households. Given the number of households in selected villages, the sample size was estimated at n=190 according to the Cochran formula with an error of 0.07%. However, since there is a huge difference between the number of households in villages, first a fixed number (a minimum of n=10 samples) was considered as the basis for all villages, and then the remaining values were calculated in proportion to the share and size of each village (Table 3).

Table 3. Sample villages, number of households, population
(Source: Statistical Center of Iran, 2016)

Name of Village	Name of district	Household	Population	Sample
Shandiz	Sarasiab	437	1439	16
	Farahabad	122	417	12
	Veyrani	1353	4698	28
	Chaheshk	1004	3317	24
	Fiyani	73	229	11
	Dehno	321	1023	14
	Hesarsorkh	501	1627	17
	Chah Khase	266	875	14
Abardeh	Zoshk	582	1836	18
	Abardeh Olia	1004	3177	24
	Garakhk	258	742	13
Total		5921	19380	190

Data gathering instrument comprised interview, field questionnaire and observation. The questionnaire consisted of closed-ended items rated on a Likert scale. The validity of the questionnaire was assessed based on content validity and the views of rural planning expert and necessary corrections were made accordingly. Also, the reliability of the questionnaire was determined by Cronbach's alpha test (0.86). Finally, after completing the questionnaire and collecting data, descriptive and inferential statistics (Pearson correlation test, single sample t-test and regression) were used to analyze data in SPSS software. Also, to rank the villages in terms of mental health and quality of life indicators, the WASPAS analysis (the weighing in WASPAS is based on entropy analysis) was used.

4. Research Findings

4.1. Descriptive Findings of the Research

Of all respondents, 59.8% were male and 40.2% were female. The mean age of the respondents was 40.15 years old (45.1%). As for the marital status, 86.9% of respondents were married and 12.3% were single. According to the household size, 76.6% of the households were made of 2 to 5 and 2.5% made of 1 and 2 people. Most respondents had high school education (29.1%). In terms of employment, the majority of respondents were self-employed (35.2%) and only 2% were livestock breeders. With regard to the ownership, most participants were the owner of their house (60%). As far as the housing construction is concerned, 3.7% of the buildings were constructed by indigenously supplied materials, 56.1% by non-indigenous materials and 39.8% by a combination of both. In Table 4, the mean of the studied villages in terms of health and housing quality is shown. In the case of physical, mental and physical health, the highest mean value belonged to Hesar-e-Sorkh village (3.00 and 3.61, respectively). As for the quantitative, physical and environmental dimensions of housing, the highest value was related to Chahshak village (3.79, 3.84 and 3.66, respectively). Also, in three quantitative, physical and environmental dimensions, the highest average belonged to the village of Chahshak, especially because the housing and facilities of the Chahshak village are new and constructed in accordance with modern

standards. Therefore, the quality of housing in this village is higher than other villages. As for the socio-cultural dimension, the largest mean belonged to Virani village (3.84), which is due to the migration of villagers to towns or other places, as well as the construction of villas by city dwellers, which are used as a sort of resort for weekends and holidays. Consequently, the fact that many urban residents commute this village has significantly changed the socio-cultural context of the village.

Table 4. Mean of research variables for villages studied
(Source: Research Findings, 2018)

Village	Housing quantity Dimension	Physical Dimension	Socio-cultural Dimension	Environmental Dimension	Mental and Physiological Health	Physical Health
Veyrani	3,479	3,607	3,842	3,294	2,779	3,451
Dehno	3,206	3,250	3,407	3,067	2,746	3,413
Garakhk	2,779	3,319	3,415	3,000	2,543	3,464
Zoshk	2,514	3,025	3,200	3,020	2,655	3,450
Abardeh Olia	3,017	3,315	3,427	3,088	2,448	3,480
Hesarsorkh	3,092	3,493	3,407	2,867	3,003	3,619
Farahabad	3,505	3,829	3,778	3,160	2,623	3,452
Chah Khase	3,213	3,293	3,594	3,188	2,514	3,317
Chaheshk	3,796	3,848	3,722	3,564	2,385	3,306
Sarasiab	3,299	3,631	3,439	2,982	2,617	3,481
Fiyani	3,121	3,481	3,474	3,169	2,618	3,336
Total	3,184	3,463	3,519	3,127	2,630	3,434

Before conducting the analytical tests, the Kolmogorov-Smirnov test was used to evaluate the normality of variables. Accordingly, all data were in the range of -1.96 and +1.96 with a significance level of greater than 0.05. Therefore, in all indicators and variables had normal distribution. Therefore, parametric tests were utilized for data analysis.

In the first step, a single-sample t-test was used to examine the average quality of housing and the mental and physical health of villagers. In this test, the mean of research indices and variables was measured with a hypothesized mean of (3). The results indicate that the actual mean of the total respondents' views is larger than 3 for the dimensions of the quality of housing and physical health and below 3 for the dimension of mental and psychological health.

According to the significance level of all dimensions (less than 0.05), the quality of housing and health were significant in all dimensions and could be generalized to the entire society. However, according to the t-statistic, the upper and lower limits of all dimensions, except for the mental and psychological, are positive, reflecting the desirable dimensions of the quality of housing and health in the view of villagers (Table 5).

Table 5. The Mean of Housing Quality and Mental Health Dimensions of Villagers (Single Sample T Test)
(Source: Research Findings, 2018)

Indicators& Variables	Exegesis T	Average	Standard Deviation	Significant Amount	Average Difference	95% Confidence Interval of The Difference	
						Lower	upper
Housing Quantitative Dimension	4,13	3,24	0,81	0,00	0,24	0,13	0,36
Housing Physical Dimension	11,26	3,50	0,61	0,00	0,50	0,41	0,58
socio-cultural Dimension	13,63	3,58	0,59	0,00	0,58	0,50	0,66
Housing Environmental Dimension	3,85	3,17	0,62	0,00	0,17	0,09	0,26
Mental and Psychological Health	-11,95	2,65	0,40	0,00	-0,35	-0,40	-0,29
Physical Health	22,51	3,43	0,26	0,00	0,43	0,39	0,47

4.2. The relationship between health dimensions and the quality of housing

In the next step, Pearson correlation test was used to investigate the relationship between health and housing quality dimensions. The results suggest that the

quantitative (0.549) physical (0.513), socio-cultural (0.505) and environmental (0.522) dimensions have a positive and significant relationship with mental-psychological health.

As for the physical health dimension, there is only a direct but weak relationship with the physical dimensions (0.149). In the case of health variable, there is a strong, direct relationship with quantitative (0.651), physical (0.623), socio-cultural (0.605) and the environmental (0.596) dimensions. That is, as the quality of housing quality improves, it exerts a positive effect on the health of villagers and contributes to the improvement of their mental and physical environment (Table 6).

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Table 6. Relationship between Health Dimensions and Housing Quality Dimensions
(Source: Research Findings, 2018)

Housing Quality dimensions		quantitative dimension	Physical dimension	Socio-cultural dimensions	Environmental dimensions
mental and psychological health	Pearson Exegesis	0,549	0,513	0,505	0,522
	Significant Amount	0,00	0,00	0,00	0,00
Physical health	Pearson Exegesis	0,112	0,149	0,116	0,054
	Significant Amount	0,125	0,040	0,111	0,460
Health dimension	Pearson Exegesis	0,651	0,623	0,605	0,596
	Significant Amount	0,00	0,00	0,00	0,00

4.3. The effects of housing quality on the health of villagers

The multivariate regression was used to study the effect of "quality of housing on the health of villagers". In the regression analysis, quality of housing is the independent variable and the health of villagers is the dependent variable. As shown in Table 7, the adjusted coefficient of determination is 0.54, which indicates the power of the independent variable's dimensions in explaining the variance of the dependent variable. That is, the independent variable explains 54% of variations in the dependent variable, and the rest of these variations (46%), known as squared error, are influenced by variables outside the model. Also, the Durbin–Watson statistic (1.17) confirms the independence of the residuals.

Table 7. Correlation, adjusted coefficient of determination, and standard error estimation
(Source: Research Findings, 2018)

Correlation Value	Modified Coefficient of Determination	Standard Error of Evaluation	Watson Camera
0,73	0,54	0,53	1,17

As shown in Table 8, the regression value for this model is 6.54 and the residual value is 5.66. Since the sum of squared residual is smaller than the sum of the regression squares, the model has high power in explaining variations of the dependent variable. In this model, the F-value is equal to 53.49 with a significance level of 0.000, which is smaller than 0.05, meaning dimensions of the independent variable can explain variations of the dependent variable to a large extent; therefore, the null hypothesis regarding the insignificance of the regression model is rejected with 99% confidence interval and the research hypothesis about the positive effect of the quality of housing on physical and mental health of villagers in the villages is confirmed. That is, higher quality of rural housing will improve physical and mental health of villagers.

Table 8. Sums of squares, degrees of freedom, mean squares and significance level of regression
(Source: Research Findings, 2018)

	Total Squares	Freedom Rate	Average of Squares	F	Significant Level
Regression	6,54	4,00	1,64	53,49	0,00
Balance	5,66	185,00	0,03		
Total	12,20	189,00			

According to Table 9, the beta value of this model is 0.25 for quantitative dimension, 0.20 for the physical dimension, 0.18 for the socio-cultural dimension and 0.23 for the environmental dimension. Accordingly, the quantitative dimension has the highest effect on physical and mental health of the villagers. Therefore, larger area of housing will reduce density, and improve quantitative characteristics of the villagers' housing. It also promotes the mental and physical well-being of the villagers as the economic life of the villagers is heavily reliant on their housing.

Table 9. Non-standardized regression coefficient, T-statistic and significance level of regression
(Source: Research Findings, 2018)

	Non-standardized Regression Coefficient	Standardized Regression Coefficient(ß)	Exegesis T	Significant Level of Regression
Fixed Coefficient	1,78		19,92	0,00
Quantitative Dimension	0,08	0,25	3,16	0,00
Physical Dimension	0,09	0,20	2,63	0,01
Socio-cultural Dimension	0,08	0,18	2,45	0,02
Environmental Dimension	0,09	0,23	3,46	0,00

Given that the regression test only examines the direct effects of the independent variable on the dependent variable and indirect effects are not taken into account, we used path analysis method, which calculates the direct, indirect and overall effects of the independent variable on the dependent variables (Table 10).

Table 10. Calculating the indirect effects of independent variables on the main dependent variable
(Source: Research Findings, 2018)

Variables	Indirect Effects on the dependent Variable
Quantitative	0,043 = (0.18) × (0,239) 0,032 =(0,23) × (0,6) × (0,239) 0,040 = (0,23) × (0,177) 0,030 =(0,23) × (0,6) × (0,457) × (0,485) 0,039 =(0,18) × (0,457) × (0,485) 0,030 =(0,23) × (0,270) × (0,485) 0,097 = (0,20) × (0,485) 0,314 = (0,097) +(0,030) + (0,039) +(0,030) + (0,040) +(0,032) + (0,043)
Physical	0,063 =(0,23) × (0,6) × (0,457) 0,082 = (0,18) × (0,457) 0,062 = (0,23) × (0,270) (0,063) + (0,082) + (0,062 = (0,207)
Socio-cultural	(0,6) × (0,23 =(0,138
Environmental	-

The results of pathway analysis show that among all independent variables (quantitative, physical, cultural, social and environmental), quantitative dimension had the highest effect on dependent variable (physical and mental health) with a value of 0.646% (Table 11).

Table 11- Direct and indirect effects of four dimensions of housing quality on the mental and physical health of villagers.
(Source: Research Findings, 2018)

Sustainability Dimensions	Direct Effects	Indirect Effects	Total
Quantitative	0,25	0,314	0,564
Physical	0,20	0,207	0,407
Socio-cultural	0,18	0,138	0,318
Environmental	0,23	0	0,23

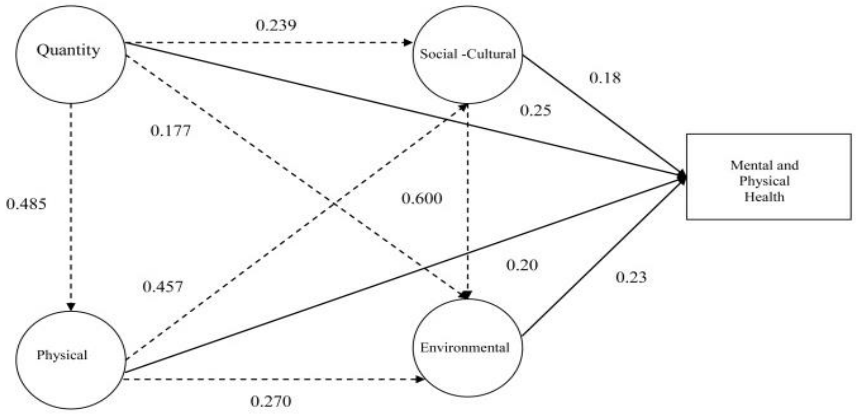

Figure 3. Direct and indirect effects of four dimensions of housing quality on the mental and physical health of villagers.

Based on the results of the pathway analysis, it can be argued that the quantitative dimension has the greatest effect on the level of mental and physical health. In fact, it is the most important factor influencing the mental and physical health of the villagers (Figure 3).

4.4. Prioritizing the studied villages in terms of the quality of housing and mental and physical health of villagers

The WASPAS technique was employed to prioritize the studied villages in terms of housing quality and mental and physical health. The WASPAS model is one of the most popular integrated models that can be highly effective in complex decision makings, and yields results of high accuracy. The Weighted Sum Model (WSM) is one of the best-known decision-making models used for solving multi-criteria problems. In the weighted aggregated sum product assessment (WASPAS) model, a hybrid criterion has been used to determine the ultimate significance of each item. In this hybrid criterion, an equal share of WSM and WSP is utilized for final assessment of items. The results of model prioritization in the housing quality variable show that Chahshak, Farah Abad and Virani villages have the highest quality of housing, and the villages of Hesar-e Sorkh, Virani and Dehnou have the highest physical and mental health among all villages under study (Table 12). Also, as shown in Figure 4, the quality of housing and the health of villagers in the Zoshk, Hesar-e Sorkh and Chahshak is higher than other villages. Accordingly, in two villages of Zoshkh and Hesar-e Sorkh the health status is higher than the quality of housing, mainly because they are far from the city. As for the Chahshak village, the quality of housing is higher than their health status. The reason is that in recent years, due to the inflow of urban residents to Chahshak village in search of a second house, there has been a construction boom, which has in turn contributed to the quality of housing in this village.

Table 12. λ, Qi and rank of each of the studied villages with regard to indicators of quality of housing and mental health

(Source: Research Findings, 2018)

Village	The Housing Quality			The mental and Physical Health		
	λ	Qi	Rank	λ	Qi	Rank
Veyrani	0,752	0,323	3	0,757	0,316	2
Dehno	0,766	0,295	7	0,759	0,312	3
Garakhk	0,795	0,275	10	0,776	0,293	8
Zoshk	0,812	0,255	11	0,767	0,304	4
Abardeh Olia	0,780	0,288	9	0,784	0,284	10
Hesarsorkh	0,773	0,292	8	0,741	0,340	1
Farahabad	0,749	0,326	2	0,770	0,301	5

Table 12.

Village	The Housing Quality			The mental and Physical Health		
	λ	Qi	Rank	λ	Qi	Rank
Chah Khase	0,768	0,300	5	0,777	0,288	9
Chaheshk	0,732	0,345	1	0,788	0,275	11
Sarasiab	0,760	0,306	4	0,770	0,300	6
Fiani	0,774	0,298	6	0,769	0,299	7

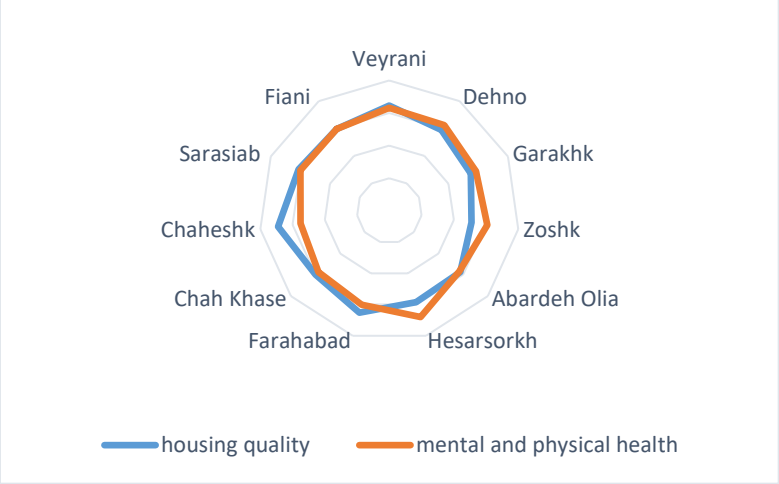

Figure 4. Qi value of each of the studied villages in the indicators of quality of housing and mental health

5. Discussion and Conclusion

In the history of human life, especially in recent decades, with increasing population growth, housing has emerged as a major economic and social issue. Meanwhile, access to affordable housing for all urban and rural households, especially poor and vulnerable groups of the society, which are usually living in rural areas, has gained prominence. Given the nexus between housing and economic, social and health and dimensions of its inhabitants, any planning for the improvement of rural housing in Iran have to pay meticulous attention to this link and gather exhaustive information about the geographical area of Iran.

Therefore, the results of this study exhibit the huge impact of housing quality on the mental and physical health of villagers, which indicates the desirability of the quality of housing and the health dimensions of the villagers. Also, the relationship between dimensions of health and the quality of housing, considering the significant level, reveal that there is a significant relationship between these two variables and can be generalized to the whole society. Based on the results of the regression, the adjusted coefficient of determination is 0.54, which reflect the power of the independent variable in explaining the variance of the dependent variable. That is, the independent variable can explain 54% of the variation of the dependent variable. Further, considering that the regression test only investigates direct effects of the independent variable on the dependent variables and the indirect effects are ignored, we used pathway analysis to take indirect effects into account as well.

The results of pathway analysis suggested that among all independent variables (quantitative, physical, socio-cultural, and environmental) the quantitative dimension had a highest effect on the dependent variable (mental and physical health. The studied villages were further analyzed in terms of the quality of housing and physical and mental health using the WASPAS technique. The results show that villages of Chahshak, Farah Abad and Virani have the highest quality housing, and the villages of Hesar-e Soarkh, Virani and Dehnou have the highest quality in terms of physical and mental health.

Considering that improving the quality of housing promotes the mental and physical health of the villagers, on the other hand, and provides a reliable source for inspiration for residents to improve the quality of life on the other hand, investment in this

field can be seen as one of the most important policies of rural management and health and.

Undoubtedly, a clear understanding of the status quo and existing potentials in various dimensions is vital to implementation of quality improvement projects. Therefore, the following points should be considered in the program aimed at improving the quality of housing:

- Housing should be built in compliance with the social class in a bid to preserve the local identity of its inhabitants.
- The availability of affordable housing and its location in terms of distance from the main road and the city to access health care services will have a huge impact on physical health of individuals.
- Given that people spend a large portion of their time in houses, the quality of housing can produce a sense of delight, vitality and safety in people, which in turn contributes to promotion of adaptability, patience and tolerance.
- Given that members of a family learn the first basic social skills in their home environment, the quality of housing and its desirability influence the ability of the family members, their social credibility and mutual emotions.

The results of this study are in agreement with the literature. Imamgholi (2013) discusses a two-way relationship between environmental architecture and general health. The study of Jahandar Lakshaki & Ebrahimzadeh (2015) exhibits that living in green space for a long time improves mental health and is crucial to reinforcing the components of mental health. Bagheri & Azamati (2009) concluded that the design of sustainable urban neighborhoods can improve the general health of citizens by promoting the quality of urban spaces and residential areas. This relationship has also been confirmed by Fussell & Lowe (2014) and Evans (2003), who reported the reduction of stress and anxiety as a result of housing interventions and policies aimed at the promotion of mental health. The findings of Kim (2010) and Thomas et al. (2013) also stress the impact of quality of the built environment and its relationship with psychosocial risk factors. The results of this study underscore the importance and necessity of implementing rehabilitation plans to promote mental health.

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چکیده مبسوط

۱. مقدمه

مسکن به عنوان سرپناهی امن و مناسب در گذر زمان و در برخورد با شرایط و ویژگی های اجتماعی، اقتصادی، سیاسی، فرهنگی و مذهبی دستخوش تغییر و دگرگونی می گردد و الگوهای متفاوتی را می پذیرد، در مقابل خود نیز می تواند به عنوان کالای سرمایه ای و یک ارزش اجتماعی باعث پایداری جامعه و کاهش آسیب های اجتماعی گردد و در اثنای این تغییرات در الگو، تغیرات زیادی به لحاظ کیفیت مصالح، مواد، طراحی و معماری و استانداردهای کیفی را تجربه نموده است که این تغییرات به صورت مستقیم بر فعالیتهای زیستی و معیشتی ساکنان آن و همچنین بر عواملی مانند سلامت روانی و بهداشتی آنها اثرگذار می باشد. روان شناسان محیطی به گونه ای مستقیم و غیرمستقیم از دیدگاه های مختلف به بررسی تأثیرات محیط کالبدی و ساخته شده بر رفتار انسان و حس تندرستی وی پرداخته اند. آن دسته از ویژگی های محیط ساخته شده که به طور مستقیم بر سلامت روان اثر گذارند شامل ازدحام و تراکم در فضا، آلودگی صوتی، کیفیت تهویه هوا و میزان نورگیری بنا و نظایر آن می شود که علاوه بر تأثیرات مستقیم و غیرمستقیم بر شرایط جسمی فرد، می تواند بر سلامت روانی وی نیز اثر بگذارد. به طوری که یافته های اپیدمیولوژیک وابستگی بالایی بین وضعیت مسکن و اثرات بهداشتی آن بر سلامت انسان را نشان می دهد. با توجه به اینکه آگاهی از شاخصهای سلامت یکی از مهمترین ابعاد سازنده کیفیت زندگی می باشد، شناسایی اثرات کیفیت مسکن بر سلامت روانی و بهداشتی عموم مردم، خصوصا روستاییان و ارتقاء یک زندگی سالم ضروری است. دهستان شاندیز از توابع شهرستان بینالود یکی از مناطقی است که بخش قابل توجهی از مساکن آن در سالهای اخیر از طریق اجرای طرحهای بهسازی و ارتقای کیفیت استانداردهای مسکن و همچنین توسط خواست خود روستاییان، بازسازی و نوسازی شده است. این دهستان دارای ۳۰ نقطه روستایی است که ۱۱ روستای سرآسیاب، فرح آباد، ویرانی، چاهشک، فیانی، دهنو، حصار سرخ، چاه خاصه، زشک، ابرده علیا وگراخک، روستاها انتخاب و مورد مطالعه قرار گرفته است. مطالعه حاضر به دنبال تحلیل و ارزیابی اثرات بهبود کیفیت مسکن بر ارتقای سلامت جسمی-روانی روستاییان ساکن در این منطقه می باشد.

۲. مبانی نظری تحقیق

در تمام دوران حیات بشر، مخصوصا در دهه های اخیر با توجه به افزایش رشد جمعیت، مسکن از مسائل مهم اقتصادی و اجتماعی افراد بوده و هست. در این میان دسترسی به مسکن مناسب برای همه خانوارهای شهری و روستایی، مخصوصا اقشار ضعیف و آسیب پذیر جامعه، که معمولا قشر وسیعی از آنها در روستاها زندگی می کنند، از اهمیت زیادی برخوردار است. طراحان و پژوهشگران زیست محیطی در دهه شصت میلادی در آمریکا انگیزه های بسیاری در جهت همکاری با یکدیگر در جهت ایجاد سکونت گاه های مناسب زندگی مردم احساس کردند. عدم توجه به نیازهای فیزیولوژیک، ایمنی و روانی مردم در طراحی و ساخت فضاهای مسکونی چون «پیروت، آیگوه» در واقع در سنت لوئیز آمریکا که منتهی به تخریب

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بیش از ۴۳ مجموعه ساختمانی و ۱۱ طبقه گردید، هشداری جدی و قابل توجه به آنها بود. توجه به مناطق روستایی و تلاش برای بهسازی و تجدید حیات بافت رو ستا به شکل امروزی در جهان، به عبارتی اولین تجارب احیا و بازسازی بافت فرسوده شهرها و روستاها در دهه ۱۸۷۰ میلادی با اقدام های هوسمان در شهر پاریس آغاز شد. به طور کلی اقدام های اولیه پیرامون احیا و بهسازی بافت فرسوده شهرها و به تبع آن روستاها را باید در کوشش های کشورهای اروپایی جستجو نمود. در کشور ما، در چند ساله بعد از انقلاب سیاست دولت در زمینه حمایت کشاورزی و عرضه خدمات زیر بنایی و سر مایه گذاری های تولیدی در روستاها، از سویی موجب پیدایش تحولات اقتصادی، اجتماعی-فرهنگی و به تبع آنها تغییرات فیزیکی در کالبد رو ستاها شد و از سویی دیگر راه را برای تحقق برنامه ریزی های رو ستایی هموار نموده و این مناطق را آماده پذیرش مسوولیت های جدید کرد.

۳. روش تحقیق

با توجه به هدف تحقیق، روش تحقیق به صورت پیمایشی از نوع کاربردی، مبتنی بر پرسشنامه و نوع پژوهش هم به صورت توصیفی-تحلیلی می باشد. روایی پرسشنامه از طریق اعتبار محتوا و با نظر کار شناس برنامه ریزی رو ستایی برر سی شد. همچنین جهت پایایی پرسشنامه از آزمون آلفای کرونباخ استفاده گردید که ۰/۸۶ به دست آ مد. در ن ها یت برای تجز یه‌وتحل یل داده ها از آ مار توصیفی و استنباطی (آزمون همبستگی پیرسون، تی تک نمونه‌ای و رگرسیون) در نرم‌افزار SPSS و برای رتبه‌بندی روستاها از لحاظ شاخص‌های سلامت روحی و روانی و کیفیت مسکن، از تحلیل واس پاس (وزن دهی مورداستفاده در تحلیل واس پاس آنتروپی می‌باشد) استفاده شده است.

۴. یافته‌های تحقیق

نتایج آزمون همبستگی پیرسون نشان می دهد که بعد کمی با آماره ۰٫۵۴۹، بعد کالبدی با آماره ۰٫۵۱۳، بعد فرهنگی- اجتماعی با آماره ۰٫۵۰۵ و بعد زیست محیطی با آماره ۰٫۵۲۲ با سلامت روحی – روانی رابطه ای مثبت با شدتی متوسط و معنادار دارد. در بعد سلامت جسمی هم تنها رابطه معنادار بین بعد کالبدی با آماره ۰٫۱۴۹ می باشد که نوع رابطه مستقیم و ضعیف می باشد و در متغیر سلامت بعد کمی با آماره ۰٫۶۵۱، بعد کالبدی با آماره ۰٫۶۲۳، بعد فرهنگی- اجتماعی با آماره ۰٫۶۰۵ و بعد زیست محیطی با آماره ۰٫۵۹۶ دارای رابطه ای مستقیم با شدتی قوی می با شد بدین معنی که هر چه ابعاد کیفیت مسکن بهبود یابد بر سلامت رو ستاییان هم اثر مثبت می گذارد و سلامت آنها در زمینه های روحی و جسمی بهبود می یابد. نتایج اولویت بندی مدل در متغیر کیفیت مسکن نشان می‌دهد که رو ستاهای چاهشک، فرح آباد و ویرانی دارای با کیفیت ترین مسکن و روستاهای حصار سرخ، ویرانی و دهنو نیز از لحاظ سلامت روحی و جسمی سالم تر از سایر روستاها می‌باشند.

۵. بحث و نتیجه گیری

نتایج حاصل از تحلیل داده ها بیانگر این است که کیفیت مسکن به میزان ۰/۵۴ درصد بر متغیر سلامت موثر است. بررسی اثرات غیر مستقیم با استفاده از تحلیل مسیر پرداخته شد که نتایج نشان داد در کل از میان متغیرهای مستقل (کمی، کالبدی، فرهنگی- اجتماعی و زیست محیطی) بعد کمی بیشترین اثر را بر متغیر وابسته (سلامت روحی و جسمی) داشته است. با توجه به اینکه بهبود و ارتقای کیفیت مسکن باعث بهبود سلامت روحی و جسمی رو ستاییان می شود از سویی دیگر منبع قابل اتکایی برای اقناع و تحریک ساکنان در جهت ارتقای کیفیت زندگی می باشد می‌توان سرمایه گذاری در این راستا را از مهمترین سیاستگذاری‌های مدیریت روستایی و سلامت و بهداشت تلقی نمود.

کلمات کلیدی: کالبد روستایی، سلامت روانی و جسمی، کیفیت مسکن، نواحی روستایی، بخش شاندیز.

تشکر و قدرانی

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Analysis of the Effects of the Guide Plans on the Modernization of Lifestyles in Rural Households (Case Study: Central District of Darab County, Iran)

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Abstract

Purpose- In recent decades, several activities have been carried out in the form of development projects to develop rural settlements in Iran. One of the most important of these is the implementation of the guide plans. This plan, with its various actions, has caused widespread changes in various dimensions of rural life. The present study investigated the effects of this project on the changes in the lifestyle of the rural community in the central district of Darab county.

Design/methodology/approach- The present research is descriptive in terms of describing the characteristics of the society studied and analytical in terms of investigating the relationship between the actions level of guide plans and the lifestyle. In this respect, the required field data are provided using observations, interviews, and questionnaires. To analyze the data, descriptive statistics, inferential statistics, spatial analysis and SAW model, and Expert Choice, SPSS and ArcGIS software are used.

Findings- The results of the research confirmed that there are significant differences between the level of changes in different dimensions of lifestyle, and the greatest changes are in the style of construction. On the other hand, the results of a Pearson correlation showed a positive relationship between the actions level of all executive components of the guide plans with a modernization level of the villagers' lifestyle. Based on the results of the linear regression test, it was found that approximately 41% of the total changes in modernization can be predicted through the action level of the guide plan.

Research limitations / implications- Owing to the different effects of the guide plans on lifestyle changes in different age groups and genders, the attention of researchers to the needs of different villagers is necessary.

Practical implications- It is imperative to pay more attention to the efficiency of the environment being built in order to respond appropriately to the lifestyles of the present and future generations and more attention is required on the part of designers and conductors of guide plans to create a suitable platform for the development of communication technology in the villages, which will create a variety of changes in the modernization of the lifestyle of the households residing in them.

Originality/value- This research will be important to provide guidance for good feedback, and to make plans for problems. Because it can take positive steps in making future projects as good as possible and such an approach will be effective to recognize prior strategies and design future policies.

Key words: Lifestyle, Modernization, Rural household, Guide plan, Darab County.
Paper type- Scientific & Research.

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1. Introduction

In developing countries, it is of particular importance to pay attention to the development of rural areas (Visser & Spoor, 2012). In this respect, according to many scholars and researchers, physical-spatial development and attention to the infrastructure of villages are considered as the main areas of activity in the field of rural development (Gibson, Cahill & McKay, 2010). This is because the creation and reform of infrastructure in rural areas play a very important role in coordinated and balanced development (Shijie, Liyin & Li, 2011), and is considered as the most important solution to the problems of villagers (Jun & Xiang, 2011). Undoubtedly, if these goals are to be realized and the villagers can benefit from modernization and development, the implementation of a coherent program will be required (Winograd & Farrow, 2009).

In recent decades, the main priorities of planners and managers in Iran include paying attention to sustainable rural development (Shamsoddini & Shakoor, 2016). Accordingly, various projects and programs have been designed and implemented in the form of plans for the organization of space and rural settlements (Ghafari, Mirzaee & Karimi, 2011). One of the most important plans that have been considered in the direction of rural development planning after the victory of the Islamic Revolution has been the Comprehensive Plan of Rural Development or "guide plan" (Shahbazi, 2010). The preparation and implementation of these plans have been carried out since 1987 with the aim of achieving favorable environmental conditions in rural settlements (Anabestani, 2009) to improve the quality of life, comfort, and satisfaction of villagers by satisfying their material and psychological needs (Heidari, 2016). For this purpose, various measures have been taken in the infrastructure and public services sectors, the Pathway network and communication paths, land use, housing and construction, health, and environment (Housing Foundation of Islamic Revolution, 2017).

Previous studies on the effects of the guide plan in Iran showed that these actions have contributed to the transformation of rural settlements and diverse changes in the various dimensions of the lives of their inhabitants (Afrakhteh, Jalalian, Anavari & Manouchehri, 2017). Indeed, implementation of a guide plan has accelerated the changes in the lives of villagers from the traditional way of life to modernity and modernism.

Obviously, all communities, including rural communities, are evolving and becoming more sophisticated nowadays (Saidi, 2010). Such change is unavoidable, and is not considered disproportionate and abominable (Abbasiasfjir, Sam & Amiriyan, 2013). However, when life evolves, we require new concepts for understanding, and lifestyle is one of the concepts used in today's world (Fazeli, 2003). Lifestyle changes are among the changes in various human societies that are closely linked to a set of concepts like culture, society, behavior, morality, ideology, personality, identity, production, consumption, social class, tastes, and needs (Fazelghaneh, 2013). Different communities in Iran have always been slowly and gradually changing within structural, cultural, model, and ideological elements (Bustani & Chari, 2013). However, never in the past, as in recent decades, have the living conditions changed at such a great pace (Kamarbeigi, 2010). Indeed, with the end of the imposed war (Iran–Iraq), we have witnessed the effects of further global trends and international developments (Bayangani, Irandost & Ahmadi, 2013). The process of modernization, the development of new communication and information technologies, the growth of national and global communications media, the process of globalization, and the upbringing and socialization of children have been raised (Bustani & Chari, 2013). Accordingly, the transition from the traditional to the industrial society gradually affected people's lifestyles, resulting in social transformations and widespread cultural change (Ashoori, 2014). But these changes in the rural community have seen such acceleration that can be referred to as the phenomenon of the "urbanization of villages" (Arjmand Siahpush & Heidari Zargush, 2012).

The study of lifestyle status in the villages of Darab County also revealed some changes that have occurred with the implementation of a guide plan, and along with this, the households living in these villages are enjoying the appearance of modernity and the use of new technologies, infrastructures, and new communication tools. Undoubtedly, such benefactors lay the ground for

the development of new technologies and major changes in the various dimensions of the lives of people in rural environments (Olatokun, 2008), and these developments mean new lifestyle experiences (Azkia & Roodbaraki, 2010). Accordingly, by examining the changes in the lifestyle of households living in villages with a guide plan, the hidden norms and values and other effects and consequences of these plans should be known, and a more realistic picture of existing or emerging trends and patterns and interpretations should be provided (Bayangani, Irandost & Ahmadi, 2013).

A review of previous studies confirms that so far, no research has been conducted to investigate the effects of the actions of guide plans on the status of changes in the lifestyle of rural communities in Iran. Hence, this research, as a novel measure in rural research, will be important to investigate the effects of the actions of guide plans on the modernization of lifestyles in rural communities and to provide guidance for good feedback, and to make plans for problems because it can take positive steps in making future projects as good as possible and such an approach will be effective to recognize prior strategies and design future policies (Lee, 2008). Accordingly, the present study, apart from looking at various aspects of lifestyle and assessing the status of the current lifestyle of the villages and comparing it with the condition before the implementation of guide plans, seeks to answer this fundamental question: What are the effects of the actions of guide plans on the modernization of the lifestyle of households living in the villages under study?

2 Research Theoretical Literature

2.1. Theoretical Framework

Since the late 20th and early 21st centuries, the approach for rural development has changed fundamentally because of some developments such as technological changes, demographic changes, urbanization, and improvement of communication facilities (Namdar & Sadighi, 2013). Accordingly, in recent decades, planners and policymakers have designed and implemented various plans and measures to improve living conditions in rural areas (Mahon, Fahy & Cinnéide, 2012), through which they could lead the villages to sustainability (Huang, Sun, Nie, Qin & Zhang, 2010). In this respect, providing various physical facilities and infrastructure and the physical-spatial development of villages are recognized as the main components of rural development planning (Yansui, 2007) in order to meet the needs of the current generation and take the needs of future generations into account (Tanguay et al., 2010).

Accordingly, various plans and actions have been taken up in Iran to organize rural areas, the guide plan of which is considered the most important one. This plan has an approved program and guidelines for conducting construction and development operations in the villages, with the knowledge of their cultural, economic, social and physical status (Shahbazi, 2010) that enter the village as external variables affecting rural structures (Anabestani, Shayan & Ahmadzadeh, 2011). This important management tool of rural development is derived from the pattern of comprehensive urban plans (Ghaffari, 2015), which can be the most important legal document for the development of a village in the country, and consider all aspects of rural life with a comprehensive and integrated vision (Anabestani & Hajipour, 2013). Therefore, a guide plan can play a fundamental role in the comprehensive development of rural areas, taking into account technological developments and benefiting from the profits of modernization and development, such as access to facilities and increasing the capacity of villagers (Borzoo, Shahhosseini, Abbasizadeh Ghanavati, Valizadeh, Baghernasab, Bahrami, Abdolmaleki & Zarafshani, 2010).

Accordingly, the implementation of the guide plan was effective in accelerating the transition from the traditional lifestyle to the modern lifestyle of the Iranian rural community and directly and indirectly led to many changes in villages. These changes are seen in patterns such as consumption pattern, clothing, makeup, nutrition, health, speech, and leisure, which are called lifestyle (Salahi Esfahani & Khojasteh, 2014). In fact, by changing the socio-physical structure of the village from the traditional to modern or semi-modern, changes have occurred in the lifestyle that affect the lifestyle of the inhabitants of these areas and ultimately create a new style of life (Mohajerani, Haghighatan & Yousefnia, 2015).

It should be noted that nowadays, the term *lifestyle* is widely used as a slang to describe the type of house and furniture. But the concept of lifestyle is more general and includes a wide range of objective and subjective matters (Evanse & Jackson, 2007). In this regard, Weber considers a

dual function for lifestyle, which, on the one hand, gives rise to differences between groups and legitimizes dominant and class superiority, and on the other, leads to intra-group cohesion (Sojasi Qeidari, Sadeqlou & Shahdadi, 2015).

Iran's villages, therefore, are experiencing a relatively broad movement from their traditional lifestyle to modern lifestyles (Arjmand Siahpush & Heidari Zargush, 2012). The results of various studies in this field suggest that the implementation of a guide plan as an external variable, in addition to the physical dimensions, has numerous effects on other aspects of rural development, including economic, social, environmental, and other ones (Anabestani, 2009).

Considering the theoretical framework of this research, a conceptual model of research has been presented (Figure 1) to better understand the research variables and the effects of the implementation of various actions of guide plans in changing the various aspects of the villagers' lifestyle.

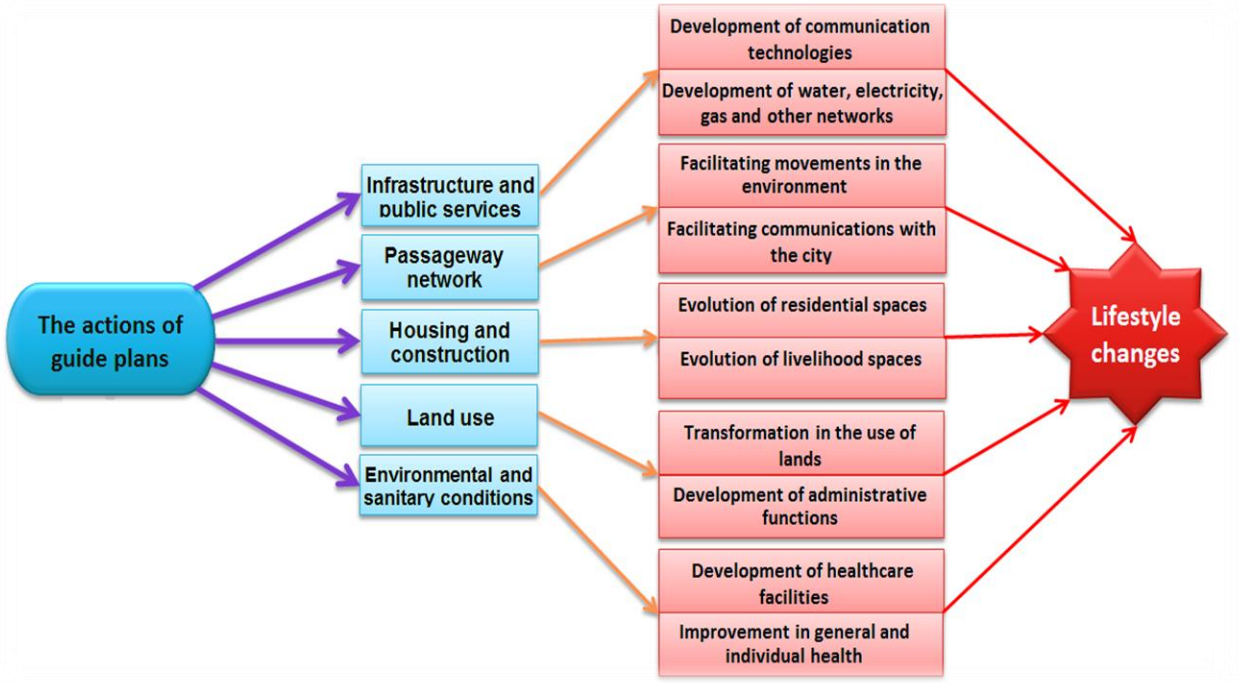

Figure 1. The effects of a guide plan on lifestyle changes in villages
(Source: Research findings, 2018)

2.2 Literature Review

Considering the importance of a guide plan and its multiple impacts on different aspects of villager's lives, several studies have been carried out on the effects of these plans on the lives of villagers. In the following, a significant number of previous studies related to this subject matter are examined. Anabestani & Hajipour (2013) investigated the social and economic effects of implementing a guide plan in rural settlements in Dena County, and believed that the implementation of these plans has caused changes in social and economic dimensions, but more time is required to reveal the economic effects. Rezaei & Shokati (2014) identified and analyzed the effects of implementing the guide plan in the village of Sarin, Osko County. According to the results of this study, the implementation of a guide plan in this village has had multiple effects on various physical, infrastructural, social, health, economic, and environmental dimensions. Based on the results of a factor analysis, 69.79% of the total variance of the effects of the implementation of the guide plan in the village studied can be explained. Shakoor & Shamsodini (2014) in a study on the effects of implementing the guide plan in the village of Konar in Marvdasht county, found that the implementation of the guide plan in this village was successful in achieving socio-economic goals, improving the environment and the villagers' living, and leading to changes in the lives of the inhabitants. Sojasi Qeidari et al. (2015) in a study on the effects of globalization on lifestyle changes in rural areas, found that because of the experience

of Iranian villages in terms of developmental transition from tradition to modernity and even postmodernity, lifestyle in different dimensions is in a mixed state. Also, in this direction, the tendency of young people is toward modernization and urban lifestyles. Mohajerani et al. (2015) have studied the lifestyle of residents of the converted villages to the cities in Khaf and Rustkhar counties. The results showed that there is a significant relationship between the network of roads and communication facilities, class identity, cultural and educational facilities, media consumption, cultural capital, consumerism, creation of markets and shopping centers, tendency to gain interest, diminution of shared support and economic well-being of individuals with the lifestyle of households living in villages turned into cities. Rabieifar, Sanati, Sashourpour & Hazrati (2015) through analyzing and evaluating the effects of implementation of a guide plan on socioeconomic changes in villages in Zanjan province, found that the implementation of a guide plan, in addition to physical changes has gradually improved the type of people's attitudes toward life in the village, the way of people's behavior with each other, and protection of the environment. The people have also gained more confidence compared to the past. Gavrov (2004) explored the social and cultural aspects of processes of modernism in Russia. According to Soininen & Merisuo-Storm (2010), development of communication technologies is considered one of the main factors in the development and modernization of lifestyles, which leads to the promotion of interactions among individuals. Lin (2013) examined the role of modernity and the importance of modernity in migration from the villages to cities in China. Milbourne & Kitchen (2014) believe that advancements in communication technologies in rural areas play an important role in helping villagers exit from isolation, changing lifestyles, and achieving social and economic opportunities.

3. Research Methodology

3.1 Geographical Scope of the Research

Darab county is located in southern Iran. The study area is connected to Neiriz county from the north, Zarrindasht county from the south, Rostagh district of Darab county from the east, and Fasa county from the west (Figure 2). Its longitude is minimum 54° 6' 3" E and maximum 55° 3' 32" E and its latitude is minimum 28° 22' 53" N and maximum 28° 56' 35" N and its average height is 1126 m.

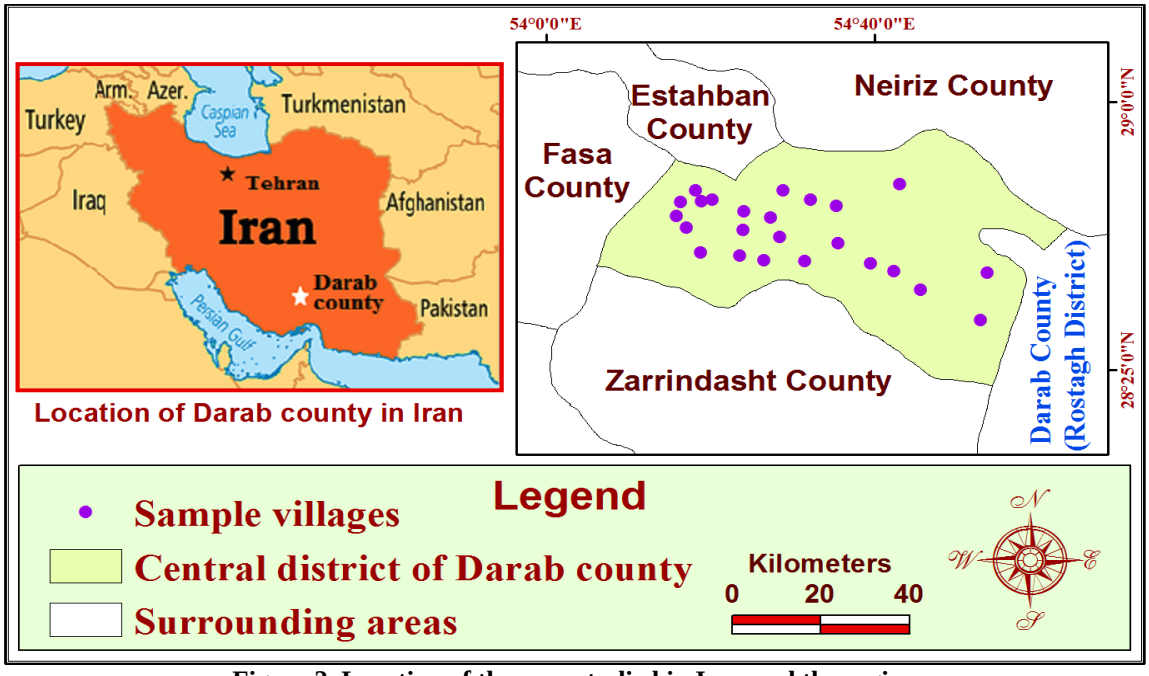

Figure 2. Location of the area studied in Iran and the region

3.2. Methodology

The present research is an applied one in terms of purpose, in terms of investigating the effective aspects of the actions of guide plans on lifestyle as exploratory research, and in terms of describing the characteristics of the society studied as descriptive

research. It is also an analytical study in terms of investigating the relationship between the actions level of guide plans and the lifestyle.

The method for collecting information was a combination of documentary and field methods. Accordingly, after studying theoretical foundations and research literature related to the topic, five components related to the actions level of guide plans and 18 components related to lifestyle and a comprehensive list of indicators related to the actions level of guide plan (Table 1) and lifestyle (Table 2) were designed, as adapted to the rural community under study. Field studies were carried out in accordance with the indicators and by using questionnaires and interviews and by completing the forms of field observations.

Formal and content validity of the tools were examined and confirmed by the experts concerned. In accordance with the Delphi technique, the questionnaire was given to experts, and was finalized after several revisions. The reliability of the research tools was calculated by Cronbach's alpha reliability coefficient; this coefficient is one of the coefficients most commonly used by social scientists to measure the reliability of data collection tools (Anabestani et al., 2011). The Cronbach's alpha coefficient relating to the actions level of guide plans and lifestyle were calculated at 0.910 and 0.849 respectively, and, as a result, the internal components of the scale had a strong correlation with each other. The reliability of the questionnaire was also confirmed. Additionally, to determine the sample villages, as the first step, based on the villages located in the central district of Darab county, a list of villages with at least 10 years' history of the implementation of guide plans was prepared. Then, according to the number of villages, and using the Cochran formula, 24 villages were calculated as the sample size; sample villages were selected by a random method. Subsequently, according to the population report of the study area (Darab Healthcare Network, 2016), the number of households in the sample villages was determined (Table 3).

Table 1. Components and indicators of research in investigating the actions level of guide plan
(Source: Research findings, 2018)

Components	Indicators
Infrastructure and public services	Safe drinking water network, electrification delivery to the village, gas delivery to the village.
Pathway network	Improvement of pathway network, creation of new pathways, improvement of pathway width, improvement of information boards and guides, tabulation, paying attention to the light and brightness of Pathways, paying attention to presence of green spaces on the pathways.
Land use	Diversity in the type of land use, diversity in new livelihood uses, preventing arbitrary and unbalanced development, design adapted to the environmental and climatic conditions, protecting agricultural lands and preventing their conversion to non-agricultural uses, paying attention to valuable and historical textures, consideration for historical monuments and tourism, creating suitable spaces for vehicle parking, creating recreational spaces.
Housing and construction	Improvement of housing safety, attention to the renovation of office buildings, construction of housing with non-traditional architecture, use of standard building materials, use of indigenous materials in construction, status of the issuance of ownership documents, prevention of arbitrary construction in the village.
Environmental and sanitary	Proper disposal of wastes, existence of ashcan at villages, collection and guidance of surface water at the village, establishment and creation of waste collection sites, existence of sanitary facilities at the village, protection of plant and animal species within the scope of the implementation of the plan, creation and restoration of green spaces at the village level, and creation and beautification of a favorable landscape in the village.

Then, according to the number of households in the villages studied (including 9,497 households) and reapplication of the Cochran formula (at 95% confidence level and 5% probability error), 370 households were determined as the sample size of the household. These households were selected by simple random sampling to complete the questionnaires. The selection of samples at the level of the villages was also proportional to the number of households living in them, and the data collection was mainly based on the 5-point Likert scales (0 = none, 1 = low, 2 = moderate, 3 = high, 4 = very high).

Table 2. Dimensions, components, and Indicators of research in the study of lifestyle modernization
(Source: Research findings, 2018)

Dimensions	Components	Indicators
Social	Influence of technology	Internet use, membership in virtual social networks, replacement of indigenous games with electronic games, use of new technologies in agricultural production, exit of villages from isolation with the advancements in communications technology.
	Sense of place in rural residents	The desire to live in the village, dependence of the villagers on the village, degree of belonging of location to the village, protection and maintenance of the equipment and facilities of the village, hope to improve the living conditions in the village.
	Social interaction	Degree of spirit of teamwork among the villagers, level of interaction with government institutions, people's co-operation during the implementation of rural development projects, presence and cooperation of women in rural affairs.
	Security	Crime rate in the village, extent of ethnic conflict in the village, extent of conflict between villagers and newcomers.
	Health status	Personal health level, family health level, public health level, presence of healthcare facilities.
	Leisure-time	Preference for leisure with pleasure to be profitable, breeding animals or flowers and domestic plants, participation in sports or artistic classes, tour in personal vehicles.
	Access to shopping centers	Abundance of shopping centers at the village level, Possibility of providing daily necessities by rural shops
	Tourism	Tourism attraction rates, hospitality, and tourist attraction.
Cultural	Tendency to urban life	Relationship of villagers to the city, desire to live in the city's spaces, the desire for urban lifestyle.
	Change in the pattern of marriage	The tendency to marry out of the village, importance of education before marriage, change in the pattern of marriage ceremony.
	The type of clothes	Tendency to dress with new designs, prioritizing foreign brands in clothing, using fashionable models in accordance with the city.
	Nutrition	Use of prepared and restaurant food, use of various and new drinks, use of snacks and nuts.
	Tendency to religious rituals	The tendency of villagers to participate in religious rituals, the desire to participate in the congregation's prayers.
	The status of women	Normalizing the public view of women in relation to working outdoors, changing the attitudes of society toward women, the presence and co-operation of women in rural affairs.
Economic	Livelihood and investment	The level of non-agricultural activities at the village level (such as service centers and shopping centers), the dominance of external markets on rural markets, the amount of investments in the village.
	Consumption pattern	The consumption of diverse products in daily life, the tendency to consumerist culture, the tendency toward the use of luxury goods, the dependence on material things in life, the tendency to have repetitious goods and tools such as home and car.
Construction style	Quality of housing	The desire to renovate homes, facilities like bathrooms and washbasins, the desire to have a sewage disposal system in housing, a suitable heating and cooling system for housing, the use of modern appliances in daily life, housing security, housing as a place for rest and relaxation.
	Quality of public service buildings	Quality of school buildings, building quality of healthcare centers, building quality of village administrators.

Table 3. Demographic characteristics of sample villages
(Source: Healthcare Network and Housing Foundation in Darab County, 2016)

Village	Population	Household	The beginning year of the project	Village	Population	Household	The beginning year of the project
Atabakhsh	1209	273	2005	Nasravan	1090	306	1998
Korsia	890	237	2005	Doulatabad	939	267	1998
Barab	860	236	1995	Herbedan	1135	318	2004
Morvarid	2780	766	2004	Tangekatoyeh	4648	1211	2004
Sangcharak	1073	290	2003	Jamsi	1417	390	1992
Fatholmobin	1860	505	1990	Banouj	2727	766	1995
Shamsabad	439	127	2005	Ghalebiyaban	1528	378	1997
Esmaeilabad	721	209	2005	Navaygan	1415	445	1995
Kohgerd	537	139	2005	Fathabad	1610	440	2004
Madovan	1661	451	1993	Kheirabad	694	179	2004
Soltanabad	705	194	2003	Eslamabad	1727	416	2004
Beriskan	1251	334	2005	Dehkheirsofla	2222	620	1997

A multi-criteria evaluation model was used to evaluate the actions level of the guide plan and the level of changes in each component of lifestyle. In this respect, the relative importance of key indicators was determined after dual comparison of the factors and their weights with Expert Choice software and the opinions of the group of decision-makers (executive managers and academic specialists). Then, for the purpose of analyzing the data and extracting the final score, the importance of each index was multiplied in the standardized score of each index and the mean score obtained from the total indicators was considered as the score of the actions level of the guide plan and the level of lifestyle modernization. Also, the rankings of villages were carried out in terms of the level of lifestyle modernization with the help of the SAW model. This model is one of the easiest and most widely-used methods in measuring and determining the hierarchy of decision-making (Olson, 2001). Thanks to its simplicity and low error rate, it is used in various sciences like the geographic sciences (Seifoddini, Ziari & Azimi, 2014) and social sciences (Ferdowsi & Shokri, 2014). Data analysis was conducted using descriptive and inferential statistical methods of SPSS software. With regard to the normalization of data in different variables, statistical analyses were performed using parametric statistical tests. In this respect, a single sample t-test was used to compare the actions level of the guide plan with the mean theoretical amount; a t-test of two dependent samples was used to compare the modernization level of the lifestyle in the two sections before the implementation of the guide plan and the current condition, one-way ANOVA with repeated measures was used to compare the level of modernization associated with different lifestyle dimensions of the households studied, and linear regression was used to measure the lifestyle being affected by the guide plan. The Pearson correlation test was used to determine the relationship between the actions level of the guide plan and the level of the lifestyle modernization of sample households. Moreover, spatial analysis and display of the status of the villages studied were carried out by designing the map through ArcGIS software.

4. Research Findings

The descriptive characteristics of respondents showed that 82.2% of them were men and 17.8% women. In terms of age, most people (44.3%) were in the age group of 35–44 years and the lowest percentage (5.4%) was in the age group above 54 years. In terms of educational levels, the highest frequency was a high-school diploma degree (with 37.8%) and the lowest frequency was more than a Bachelor's degree (1.4%).

In this research, before considering the modernization of lifestyle of households living in sample villages, the actions level of the guide plan was considered in different dimensions. In this regard, the results of a single sample t-test showed that at an error level of less than 1% (Sig. 0.000), there was a significant difference between the actions level related to different dimensions of the

plan with the mean theoretical amount (test value = 0.5). Also, the average of the actions level in different dimensions of guide plan indicated that the actions level was more than the theoretical average in all dimensions. The actions level of the guide plan in the villages was, therefore, acceptable (Table 4).

Table 4. Results of a single-sample t test in examining the actions level in different dimensions of the guide plan
(Source: Research findings, 2018)

Dimensions	Mean	Std. Deviation	Mean Difference	df	t	Sig.
Infrastructure and public services	0.855	0.129	0.355	369	27.062	0.000
Pathway network	0.862	0.071	0.362	369	50.050	0.000
Land use	0.641	0.146	0.141	369	16.184	0.000
Housing and construction	0.729	0.111	0.229	369	28.979	0.000
Environmental and sanitary	0.515	0.150	0.015	369	14.082	0.000

On the other hand, the study of the frequency of households in terms of lifestyle modernization showed that the level of modernization was very low in 3.2% of households, was low in 10.3%, was relatively high in 26.8%, was high in 29.2%, and was very high in 30.5%.

In addition, a one-way ANOVA with repeated measures was used to compare the current state of modernization in different dimensions of lifestyle of the households studied. Based on this, among the multivariate tests, Wilks' Lambda test (which is more popular) was the basis of the work. In this respect, the effect of Wilks' Lambda with a value of V=0.013, F=9018/084, and a significance level of 0.000 were obtained. As a result, there was a significant difference between the levels of modernization in different dimensions of lifestyle at a 99% confidence level. Also, considering that the Sig. value of Mauchly's sphericity test was less than 0.05, there was no need to use other conservative tests. On the other hand, the results of the measurement of homogeneity of variance errors of various dimensions of the households' lifestyle showed that the F value had an error level of less than 0.05 for all dimensions. As a result, the variance of the error varies in all dimensions.

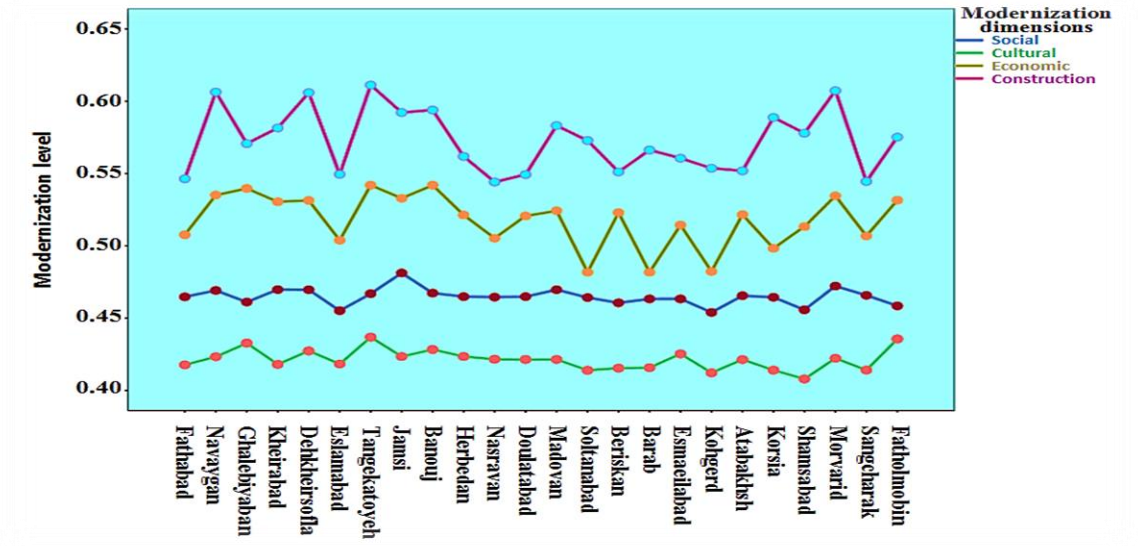

Figure 3. Comparison of the current state of modernization in different dimensions of lifestyle in the villages under study
(Source: Research findings, 2018)

Hence, the current dimensions of lifestyle modernization have not similarly been transformed, the villages of Morvarid and Tangekatoyeh were at the highest level of

modernization and the villages of Sangcharak and Nasravan were at the lowest level. Also, at the lowest level of lifestyle dimensions (related to cultural modernism), the villages of Tangekatoyeh and Fatholmobin were at the highest level and the villages of Shamsabad and Kohgerd were at the lowest level of modernity (Figure 3).

On the other hand, to rank the villages studied in terms of the level of lifestyle modernization, the relative importance of the related components was determined within the framework of the paired comparison using Expert Choice software. The results of the paired comparisons of the components of lifestyle modernization showed that the components of belonging to the village, the quality of housing, and the penetration of technology had the highest weight, with coefficients of 0.105, 0.103, and 0.096, respectively.

The results of the ranking of sample villages using the SAW technique indicated that the crowded villages of Morvarid, Jamsi, and Tangekatoyeh were at the highest level of lifestyle modernization and the villages of Kohgerd, Eslamabad, and Sangcharak were at the lowest level. In this respect, the distribution of villages based on the level of lifestyle modernization reflected the fact that villages mainly located in the central part of the study area were more modern compared to other villages (Figure 4). This result can be understood because of the proximity of these villages to the main roads, their proximity to the city of Darab (as a service distribution center), and the existence of more quality measures in various executive projects in these villages.

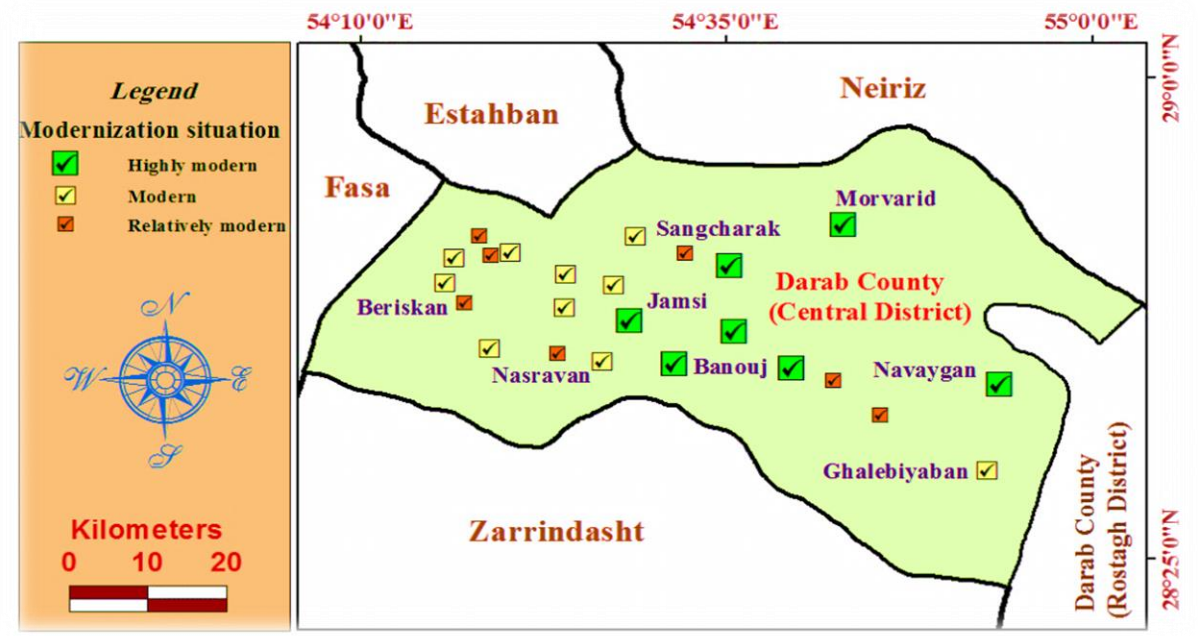

Figure 4. Distribution of villages studied, based on the level of modernization
(Source: Research findings, 2018)

On the other hand, to compare the levels of the lifestyle modernization in two phases before the implementation of the guide plan and the current condition, a dependent samples t-test was used. Based on the descriptive statistics (Table 5), the mean of lifestyle modernization before implementation of the plan was 0.296, and is 0.501 in the present condition. Accordingly, the level of modernization has increased in the households studied. The other output of this test indicated that the Sig. value was 0,000. Therefore, with a confidence level of 99%, there was a significant difference between the average of lifestyle modernization before the implementation of the plan and the present condition (Table 6).

Table 5. Mean and standard deviation of the level of modernization in two periods before the implementation of the plan and the current condition
(Source: Research findings, 2018)

Status	Mean	N	Std. Deviation	Std. Error Mean
Before the implementation	0.296	370	0.0081	0.0004
Current condition	0.501	370	0.0130	0.0007

Table 6. T-test results in examining the difference between the level of modernization in two phases before the implementation of the guide plan and the current condition
(Source: Research findings, 2018)

Status	Mean	Std. Deviation	95% Confidence Interval of the Difference		t	Sig.
			Lower	Upper		
Before the implementation Current condition	-0.205	0.018	-0.208	-0.202	-316.207	0.000

On the other hand, a comparison of the two phases before the implementation of the guide plan and the current condition in terms of the level of modernization in various components of lifestyle indicate that the modernization of the lifestyle of rural households has changed in different components as compared to prior implementation of the guide plan (Table 7). In this respect, most of the changes were in the components of housing, influence of technology, sense of belonging to the village, and leisure time, and the least of the changes occurred in social relations, tourism, and nutrition status of villagers. Moreover, the results showed that religious adherence was reduced compared to the time before the implementation of the guide plan.

Table 7. Status of the components of modernization in two phases before the implementation of the guide plan and the current situation in the households studied
(Source: Research findings, 2018)

Components	Before the implementation		The current situation		The type and extent of changes
	Mean	Std. Deviation	Mean	Std. Deviation	
Influence of technology	0.176	0.026	0.609	0.016	0.433
Urban tendencies	0.167	0.032	0.551	0.015	0.384
Marriage pattern	0.165	0.038	0.485	0.044	0.320
Quality of housing	0.201	0.025	0.630	0.035	0.429
Clothing status	0.133	0.031	0.423	0.035	0.290
Nutrition status	0.146	0.017	0.385	0.037	0.239
Leisure time	0.163	0.015	0.549	0.039	0.386
Religious adherence	0.282	0.035	0.277	0.026	0.005-
Livelihood transformations	0.243	0.019	0.619	0.034	0.376
Sense of belonging to the village	0.208	0.036	0.602	0.030	0.394
Social relations of villagers	0.217	0.018	0.343	0.018	0.126
Security and relaxation	0.263	0.029	0.503	0.023	0.240
Pace of life's transformations	0.122	0.012	0.463	0.014	0.341
Status of women	0.144	0.031	0.476	0.030	0.332
Consumerism status	0.152	0.019	0.471	0.024	0.319
Health status	0.212	0.037	0.572	0.034	0.360
Tourism status	0.345	0.059	0.514	0.036	0.169
Quality of administrative functions	0.182	0.013	0.551	0.028	0.369

The results of the variance analysis with repeated measurements to compare the level of transformations of different dimensions of lifestyle modernization indicated that there is a significant difference between the extent of changes in the various dimensions of lifestyle modernization at

the 99% confidence level based on Pillai's Trace test with values of "V=0.961," "F= 2996.486," and a significance level of "000/0." The results also showed that among different dimensions of lifestyle, the highest level of change was related to the style of construction and the lowest level to the social dimension (Figure 5).

On the other hand, the frequency of households under study, based on the intensity of lifestyle modernizational changes, suggested that the rate of change in lifestyle modernization was very low in 5.4% of households, low in 24.6% of them, moderate in 29.5% of them, high in 28.9% of them, and very high in 11.6% of them.

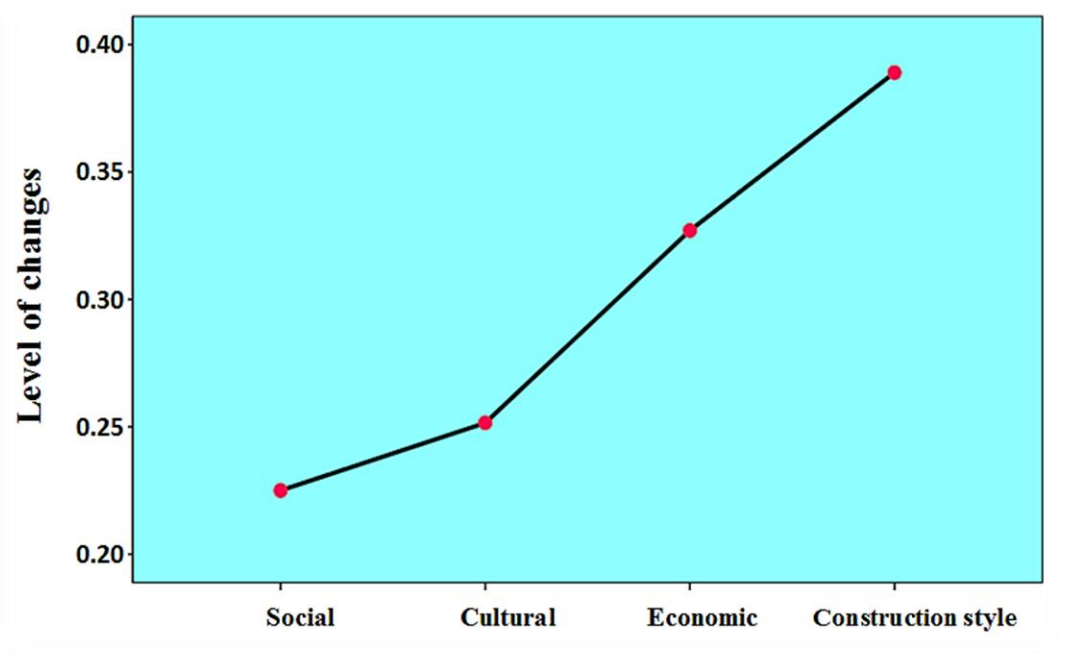

Figure 5. Comparison of changes in different dimensions of lifestyle modernization
(Source: Research findings, 2018)

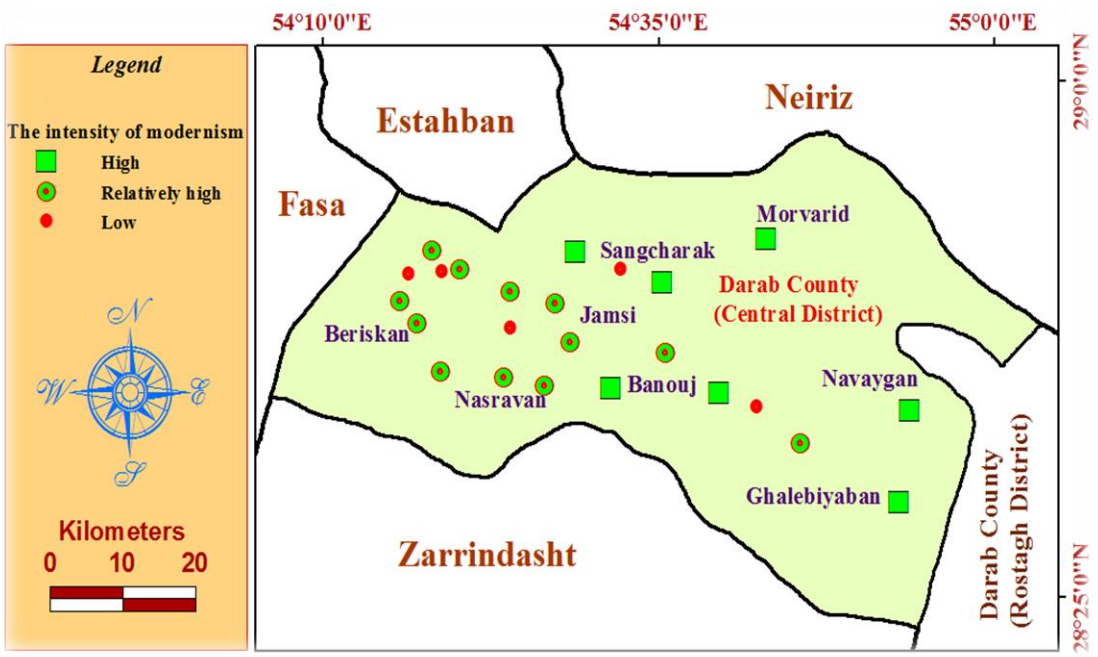

Figure 6. Distribution of the villages studied, based on the intensity of changes in lifestyle modernization
(Source: Research findings, 2018)

The study of the distribution of the villages studied in terms of changes in lifestyle modernization (Figure 6) showed that in villages mainly located in the middle and eastern regions of the area under study, the intensity of changes in the lifestyle modernization of the household was very high.In contrast, the state of changes in the villages of Eslamabad, Barab, Kohgerd, Sangcharak, and Soltanabad was relatively high. The common features of these villages were a shorter history of the implementation of the guide plan and the fact that they have a smaller population compared to other villages.

Moreover, to analyze the relationship between the actions level of different sections of the guide plan and the level of lifestyle modernization, a Pearson's correlation test has been used in accordance with the normality of the data. The results of the study showed that the actions level of the guide plan in all sectors, by accepting an error of less than 1 percent, had a positive and relatively strong correlation with the level of lifestyle modernization (Table 8). Based on the results, the highest correlation existed between the level of lifestyle modernization and the level of infrastructure and public service

Table 8. Correlation between the actions level of different sections of the guide plan and the level of lifestyle modernization

(Source: Research findings, 2018)

Research variables		Infrastructure and public services	Pathway network	Land use	Housing and construction	Environmental and sanitary
The level of modernization	Pearson Correlation	0.641	0.609	0.406	0.514	0.596
	Sig.	0.001	0.000	0.002	0.001	0.002
	N	24	24	24	24	24

On the other hand, a linear regression test has been used to investigate the effect of guide plan actions on the level of lifestyle modernization in the households living in the villages. The results of the regression test showed that the independent variable (the level of the guide plan actions) can significantly predict and explain the dependent variable (the level of lifestyle modernization) at an error level of less than 0.01. Also, the moderated regression coefficient has shown that approximately 41% of the total changes in lifestyle modernization were predictable through the level of guide plan actions (Table 9).

Table 9. The results of a regression test in examining the effect of guide plan actions on the modernization level of the households under study

(Source: Research findings, 2018)

Independent variable	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Constant	0.439	0.013	-	33.743	0.000
Actions level of guide plans	0.033	0.016	0.406	2.085	0.049

5 Discussion and Suggestions

The implementation of projects related to the guide plan in rural settlements is a major step toward meeting the primary and secondary needs of villagers, orientating life in rural environments, creating opportunities and potential for strengthening rural areas in different aspects of life, and accelerating the transition of villagers from their former lifestyle to a modern lifestyle in order to provide suitable and more favorable living conditions for living, and facilitating, guiding, and developing various dimensions of life in villages. In this regard, the present study is an innovative and remarkable step since the role of a guide plan in the development and modernization of rural lifestyle has not been addressed in any of the previous studies.

The findings of this research indicated that in the villages that were studied, the actions of different sections of the guide plan have been carried out appropriately with a confidence level of 99%.

Also, a comparison of the average level of lifestyle modernization in two phases before the implementation of the guide plan and the current condition showed that the living conditions of the households in these villages are distant from the traditional one and move toward modernism and modern life. This situation shows higher welfare for villagers and the beginning of urbanization and modernization in the lifestyle of villagers. On the other hand, the study of the level of changes in lifestyle modernization suggested that the highest rate of change was in the components of housing, the influence of technology, the sense of belonging to the village, leisure time, and urban trends. The Pearson's correlation test also showed that the actions level in all the executive sections of the guide plan had a positive and relatively strong correlation with the rate of changes in the lifestyle of the rural population, and this, along with the results of the regression test, showed the very significant effect of the actions level of the guide plan on the rate of changes in the lifestyle of the households studied. In the past, though there has been no research on the effects of a guide plan on lifestyle modernization, the comparison of the results of this study with previous studies on the effects of guide plans in rural areas (Anabestani & Hajipour, 2013; Rezaei & Shokati, 2014; Sakoor & Shamsodini, 2014; Rabieifar et al., 2015) confirmed the coincidence of the results of the present study with the results of previous studies in the study of similar and common indicators.

However, according to the results of the research, the following suggestions appear to be effective in improving the effects and results of rural guide plans:

1. Owing to the various effects of the guide plan on the lifestyle of households living in villages, the attention of designers and administrators to the severity and type of feedback received from the project is necessary.
2. Owing to the fact that the results of the research indicated the weaknesses of guide plans in environmental and sanitary actions and land use planning, and finally, its reduced positive effects on lifestyle modernization, the focus of the authorities on raising awareness and increasing the participation of the villagers will be obligatory for more favorable results.
3. Owing to the different effects of the guide plans on lifestyle changes in different age groups and genders, the attention of designers and project executors to the needs of different villagers is necessary.
4. Considering the effective role of public participation, the use of participatory management (public–public) is recommended for the implementation of a higher quality guide plan and the development of positive changes in different dimensions of lifestyle.
5. More attention is required on the part of designers and conductors of guide plans to create a suitable platform for the development of communication technology in the villages, which will create a variety of changes in the modernization of the lifestyle of the households residing in them.
6. Efforts to promote localization of project actions in order to preserve the valuable and lasting parts of rural lifestyle and reducing adverse outcomes such as the gradual elimination of indigenous capabilities are necessary.
7. It is imperative to pay more attention to the efficiency of the environment being built in order to respond appropriately to the lifestyles of the present and future generations.

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چکیده مبسوط

۱- مقدمه

در دهه‌های اخیر، اقدامات متعددی در قالب طرح‌های عمرانی، جهت توسعه سکونتگاه‌های روستایی در ایران انجام گردیده است که یکی از مهم‌ترین آنها، اجرای طرح هادی می‌باشد. این طرح با اقدامات متنوع خود، موجب ایجاد تحولات گسترده‌ای در ابعاد مختلف زندگی روستاییان شده است که این تحولات به معنای تجربه سبک زندگی نوین در روستاها می‌باشد. بر این اساس، با بررسی تحولات سبک زندگی خانوارهای ساکن در روستاهای دارای طرح هادی، بایستی از هنجارها و ارزش‌های پنهان و سایر آثار و تبعات این طرح‌ها اطلاع یافت و از جهت‌گیری‌ها و الگوهای موجود یا در حال شکل‌گیری، تفسیر و تصویر واقع‌بینانه‌تری ارائه نمود. لذا پژوهش حاضر به دنبال پاسخ به این سؤال اساسی می‌باشد که اثرات اقدامات طرح هادی در نوگرایی سبک زندگی خانوارهای ساکن در روستاهای مورد مطالعه چگونه است؟

۲. مبانی نظری

طرح هادی روستایی، برنامه و راهنمای مصوبی برای هدایت عملیات سازندگی و آبادانی در روستاها، با آگاهی از وضعیت فرهنگی، اقتصادی، اجتماعی و فیزیکی آن‌هاست که به‌عنوان یک متغیر بیرونی وارد فضای روستا می‌شوند و بر ساختارهای روستا اثر می‌گذارد.

بر این اساس، اجرای طرح‌های هادی به‌صورت مستقیم و غیرمستقیم منجر به ایجاد دگرگونی‌های متعددی در ساختارهایی مثل الگوهای مصرف، سبک پوشش و لباس ، آرایش، تغذیه، بهداشت، گفتار و گذران اوقات فراغت می‌گردد. در واقع، با تغییر بافت کالبدی- اجتماعی فضای روستا از حالت سنتی به سمت مدرن و یا شبه مدرن، شاهد تغییراتی در سبک زندگی هستیم که مجموع این عوامل، بر سبک زندگی ساکنان این نواحی اثر می‌گذارد و در نهایت سبک جدیدی از زندگی را پدید می‌آورد.

۳. روش تحقیق

پژوهش حاضر از جنبه هدف، کاربردی، از نظر شناسایی جنبه‌های تأثیرگذار اقدامات طرح هادی بر سبک زندگی، اکتشافی، به لحاظ توصیف ویژگی‌های جامعه مورد مطالعه در زمره تحقیقات توصیفی و از نظر برقراری ارتباط بین اقدامات طرح با سبک زندگی روستایی از نوع تحلیلی می‌باشد.

روش جمع‌آوری اطلاعات، ترکیبی از روش‌های اسنادی و میدانی است. بر این اساس، پس از مطالعه مبانی نظری و بررسی پژوهش‌های مرتبط با موضوع، پنج مؤلفه در ارتباط با اقدامات طرح هادی و هجده مؤلفه در راستای سبک زندگی و فهرستی جامع از شاخص‌ها و نشانگرهای منطبق با اقدامات طرح هادی و سبک زندگی، متناسب با جامعه‌ی روستایی مورد مطالعه تدوین گردید و مطالعات میدانی با توجه به شاخص‌های مورد نظر و با استفاده از پرسشنامه، مصاحبه و تکمیل فرم مشاهدات میدانی انجام گردیده است.

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برای آزمون روایی پرسشنامه از روایی صوری و محتوایی استفاده شده است و پایایی تحقیق نیز به روش آلفای کرونباخ محاسبه و تأیید گردیده است.

همچنین تجزیه و تحلیل داده‌ها، با استفاده از روش‌های آمار توصیفی، آمار استنباطی، تحلیل فضایی و مدل SAW و نرم‌افزارهای Expert Choice، SPSS و ArcGIS انجام گردیده است. در این راستا، برای بررسی سطح اقدامات طرح هادی روستایی و سطح تحولات در هر یک از مؤلفه‌های سبک زندگی، از مدل ارزیابی چند معیاری استفاده شده است. همچنین رتبه‌بندی روستاهای مورد مطالعه به لحاظ سطح نوگرایی سبک زندگی با کمک مدل SAW انجام شده است.

۴. یافته‌های تحقیق

مقایسه سطح نوگرایی در مؤلفه‌های مختلف سبک زندگی در دو مقطع قبل و بعد از اجرای طرح هادی نشان‌دهنده‌ی آن است که نوگرایی سبک زندگی خانوارهای روستایی در مؤلفه‌های مختلف نسبت به قبل از اجرای طرح هادی دچار تغییر شده است. در این راستا، بیشترین تغییرات نوگرایی به ترتیب در بخش‌های مسکن، نفوذ تکنولوژی، وضعیت تعلق به روستا و نحوه‌ی گذران اوقات فراغت و کمترین تغییرات در روابط اجتماعی، گردشگرپذیری و وضعیت تغذیه روستاییان بوده است. همچنین نتایج نشان داد که پایبندی مذهبی نسبت به پیش از اجرای طرح کاهش یافته است.

همچنین نتایج آزمون آنوای مکرر بیانگر آن است که بین میزان تغییرات در ابعاد مختلف سبک زندگی، اختلاف قابل توجهی وجود دارد و بالاترین میزان تغییرات مربوط به سبک ساخت‌وساز می‌باشد. از طرف دیگر، نتایج آزمون همبستگی پیرسون گویای ارتباط مثبت بین سطح اقدامات تمام بخش‌های اجرایی طرح هادی با سطح نوگرایی سبک زندگی روستاییان بوده است و براساس نتایج آزمون رگرسیون خطی نیز مشخص گردید که تقریباً ۴۱ درصد از کل تغییرات نوگرایی سبک زندگی، از طریق سطح اقدامات طرح هادی قابل پیش‌بینی می‌باشد.

بررسی چگونگی پراکنش روستاهای مورد مطالعه به تفکیک شدت تغییرات سبک زندگی حاکی از آن است که در روستاهای واقع در بخش میانی و شرقی محدوده مورد مطالعه، شدت تغییرات در نوگرایی سبک زندگی خانوارهای ساکن در آنها بیشتر بوده است. از ویژگی‌های مشترک این روستاها سابقه طولانی‌تر اجرای طرح هادی، داشتن جمعیت بیشتر نسبت سایر روستاها و کیفیت بهتر طرح‌های هادی می‌باشد.

۵. بحث و نتیجه‌گیری

یافته‌های پژوهش بیانگر آن است که با اجرای طرح‌های هادی، زندگی خانوارهای ساکن در روستاهای مورد مطالعه از حالت سنتی فاصله گرفته و به سمت زندگی امروزی و مدرن رو به حرکت می‌باشد. این وضعیت، حاکی از تأمین رفاه بیشتر روستاییان، شروع روند شهرگرایی و تجدد در سبک زندگی روستاییان تلقی می‌گردد. از طرف دیگر، نتایج نشان می‌دهد که سطح اقدامات در تمام بخش‌های اجرایی طرح هادی دارای رابطه‌ی مثبت و نسبتاً قوی با میزان تغییرات نوگرایی سبک زندگی روستاییان می‌باشند و این امر در کنار نتایج حاصل از آزمون رگرسیون، بیانگر تأثیر بسیار قابل توجه سطح اقدامات طرح‌های هادی بر میزان تحولات سبک زندگی خانوارهای مورد مطالعه می‌باشد.

با توجه به آثار متنوع طرح هادی بر سبک زندگی خانوارهای ساکن در روستاها، توجه طراحان و مجریان به شدت و نوع بازخوردهای منبعث از این طرح‌ها و کارآمدی هر چه بیشتر محیط‌های در حال ساخت به منظور پاسخگویی متناسب با شرایط سبک زندگی نسل حاضر و آینده ضروری می‌باشد. همچنین توجه بیشتر طراحان و مجریان طرح‌های هادی بر ایجاد بستر مناسب جهت گسترش فناوری ارتباطات در سطح روستاها، زمینه‌ساز تحولات متنوع در نوگرایی سبک زندگی خانوارهای ساکن در آنها خواهد بود.

کلمات کلیدی: سبک زندگی، نوگرایی، خانوار روستایی، طرح هادی، شهرستان داراب.

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Analysis of the Model of Sustainable Development Planning in Rural Economy of Iran (Case Study: Yazd Province)

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Abstract

Purpose- The present study was undertaken to explore the model of the sustainable development planning of rural economy in Yazd province.

Design/methodology/approach- This is an applied research that draws on an exploratory approach for data collection and is descriptive-analytical with regard to the description of characteristics. The main research instrument was a questionnaire coupled with semi-structured interviews. The statistical population of the study consisted of government actors in Yazd province, who were selected using multi-stage sampling method.

Findings- The findings of this research indicated that planning sustainable development of rural economy in Yazd province has been consistent with the rational approach in terms of characteristics and compatible with the operational planning in terms of pattern. The central planning process has been top-down, and therefore, the local communities have not been involved in any of the planning processes.

Research limitations / implications-The dominance of the traditional views on planning and the absence of stakeholders and locals in the planning framework has led to seven decades of ineffective development programs in Iran. Therefore, changing the planning pattern from the traditional (rational) to new (interactive-communicative) approach, which would lead to decentralization and the establishment of a public involvement in the planning system, especially in rural development, can help cope with the shortcomings of seven decades of rural development programs in Iran in general, and Yazd province in particular.

Practical implications- Trusting people and utilizing the knowledge of rural people, especially the educated and young people, not only in planning but also in managerial positions such as district deputy in which the candidates are chosen among the local people, use of regional potentials such as Basij of Engineers to set up small knowledge-based circles at the city level and specialization of rural districts are some of the solutions that can trigger rural development under an interactive pattern.

Originality/value: It is also important to identify the model that is employed by the dominant approach to development planning in a country. Based on this model, many features such as the extent of concentration and the role of people in the planning system, the role of local potentials and the limitations in planning, the place of monitoring and evaluation, among other things, in fostering development can be identified.

Key words: Sustainable development, Rural economy, Core pattern, Operational planning, Yazd.
Paper type- Scientific & Research.

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1. Introduction

In Iran, planning for development began in 1937 with the establishment of the Economic Council. Although before that a seven-year development plan had been proposed by Zahedi for the period of 1931-1937, when a development plan in its modern sense has not been adopted in any part of the world, this plan did not receive the official attention it deserved (Azimi Arani, Noor Mohammadi, 2012). Therefore, the history of planning in Iran precedes many countries. In addition, four other development programs were authorized and implemented before the Islamic Revolution in Iran, but the main objective of the planning (i.e development) , was not accomplished. Many reasons can be cited for this failure. One is the priority given to foreign interests in development planning and the absence of a nexus between the planning and the social structure of Iran, the authoritarian ruling system, the reduction of development to physical planning, discontent with the planning rules, non-acceptance of the programs presented by the planning organization, the conflict between the planning organization and the government, and the over-reliance of the development planning on oil. The planning in this period was largely unsuccessful, therefore, undoubtedly these plans could not be expected to contribute to the development of rural areas, as rural areas had a trivial share in the developmental programs. In the first, second, and third development plans, there was no specific section dedicated to rural development, and in the fourth and fifth plans, where rural development was taken into consideration, no development plan had been envisaged for villages with a population of less than 250 people, which covered 40 percent of the villagers (Ghadiri Ma'soum, Aligholizadeh Firouzjaie, 2003). After the Islamic Revolution, the rural development was pursued through five socio-economic development programs. Despite tremendous efforts and positive outcomes, including development in the agricultural sector and improved productivity, massive construction and infrastructure activities in the villages, progress in health and hygiene (Shakouri, 2012), Iran was still among the developing countries, and rural areas struggled with a plethora of problems, such as migration, unemployment, change in age composition of population, lack of economic diversification, failure to exploit local potentials and capabilities and high vulnerability, among other things (Roknodinn Eftekhari , Sajasi Qeidari, 2014). That is, although development planning in Iran in general and rural planning in particular have a long-established history and Iran has been one of the pioneers of developing development plans, today this country is facing stagnation and undesirability of economic growth (both in cities and villages). At the same time, there are countries with less than two decades of planning experience, which are several decades ahead of Iran in terms of growth and development criteria. Now, the question is why, despite creation of the conditions for growth and development, and the long history of planning and dedication of national resources to formulating development plans, Iran always struggles with the problem of non-execution of plans and ineffectiveness of programs (Economic Research Center, 2014). Several studies have identified factors such as disregard for the role of the villages in national planning system; non-consideration of environmental and geographical conditions of rural areas in the planning system; lack of needs analysis in rural areas; and the formulation of rural development goals based on needs and issues that are generally associated with the focus of the planning system as the factors contributing to the ineffectiveness of planning in rural areas (Rezvani, 2001). However, in the Fourth Development Plan of Iran, the Provincial Development Plan was drafted based on an executive mechanism (Articles 72 and 83). The implementation of the provincial development plan introduced a bottom-up approach to the top-down view of the Fourth Development Plan of the country and contributed to the decentralization of the development planning system. Nevertheless, recent evidence suggests that these programs have failed to accomplish their envisaged goals. Therefore, the present study, in the light of the above issues, (first, after several decades of construction and development programs in the country, villages still face many problems and the number of abandoned villages are increasing each year. Second, since the Fourth Development Plan and based on the above Articles, greater attention has been paid to decentralized planning and formulation of the provincial development

document, but the programs have not yet achieved their goals) aims to analyze the sustainable development planning system of rural economy in Yazd province.

According to statistics, Yazd province is one of the main provinces that struggle with rural population instability in Iran. The ratio of ruralization in this province has dropped from 20% in 2006 to 17% in 2011 and 14.64% in 2016, which manifests the growing rate of abandoning villages in the province. In addition, the annual growth of rural population in Yazd province is 1.66%. Observations in the province suggest that although social development programs have improved social services such as health and education, they have not been able to reach economic goals and promote economic sustainability in rural areas. Therefore, despite the relative improvement of the social status of rural areas in Yazd province, due to unemployment and low income levels, on the one hand, and industrialization of cities, on the other hand, rural-urban migration has been increasing in the province. In other words, during the past years, lack of planning, disregard for the living conditions and livelihoods of the villagers and the lack of necessary support has increased the rural-urban migration in this province. The outcome of this trend is vacant villages, migration of young and productive labor force from villages, and, as a result, decreased production of agricultural goods and livestock, aged population dominated by women in the rural areas, and at the same time social and demographic pressures such as increase in slum and squatter settlement, intensified social and moral vices, and the spatial problems induced by over-crowding in cities. Therefore, in this research, attempts have been made to answer the following two questions using descriptive-analytical approach and designing a questionnaire and conducting interviews:

1. What are the characteristics of the dominant model of sustainable development of rural economy in Yazd province?
2. What model of sustainable development is adopted by the planning system for rural economy in Yazd province?

2. Research Theoretical Literature

A few studies have addressed the issue of rural development planning and its dominant models. Most studies have focused on the shortcomings and drawbacks of development planning system and tried to criticize the planning system by discussing the theoretical deficiencies of the planning. For example, Zahedi et al. (2012) in a paper on theoretical shortcomings of rural development planning in Iran, used a qualitative research method based on Delphi technique to investigate the weaknesses of rural development planning in Iran after the Revolution, concluding thatthere is no shared understanding of development in the rural development planning of Iran, and such plans are flawed from the intellectual, rational and theoretical aspects. In fact, it seems that this theory still does not have the essential theoretical and richness to reinforce sustainability of rural development. According to the research, the major drawbacks of rural development planning system in Iran are: the dominance of an exogenous development approach, the dominance of the positivistic and quantitative methods with the planners playing the central role , the imperative and top-down nature of plans, centrality of idealistic views in planning system, unclear rural development policies and strategies, the idealistic nature of rural development plans, and the uncertainty of some decision shapers and decision-makers about the necessity of rural development. In a study titled "The development experience of Turkey with emphasis on development plans and its comparisons with Iran", Gholipour and Aghajani (2014) utilized a comparative and a descriptive-analytic research method to explore the causes of Turkey's success in development and the characteristics of the development programs in Turkey. They reported that all policies of the Turkish government have been in line with development goals set by the Ministry of Development, all long-term (five-year perspective and vision plans) and short-term (medium-term programs and annual plans) development plans have taken into account the diversity and rationality of plans, and goals have been meticulously defined by quantifying them. These factors, authors noted, were the main reasons for the progress of Turkey in recent years. "An opportunity to address the concept of planning in Iran," is the title of an article written by Motewaseli et al. (2017), who examined the requirements and challenges of designing, drafting, and implementing an effective planning in Iran. The results of this research, which draws on a descriptive-documentary approach, demonstrated

that in order to realize development goals, an institution-oriented approach to planning should be adopted which is a collaborative and bottom-up approach, rather than a non- collaborative and top-down approach.

In general, according to the existing theoretical concepts of planning, in planning the process of development, two parameters should be clearly distinguished: a) the views, goals and approaches dominating the development process; and b) the process dominating the process of planning the work.

In the realm of theory, these two parameters represent two sets of theories, the former "theory of planning" and the latter "planning theory". Theory of planning refers to independent theories in various scientific disciplines, such as social and economic theories, which lay the basis for formulating development plans whereas planning theory focuses on the elements, stages, and execution of the planning process, which demonstrates the nature and process of planning. (Behzad Nasab, 2010).

The focus of this research is on the planning theory. Based on document analysis and inclusion of components, stages, and execution methods, seven common models of planning are defined as follows: Advocacy planning, Strategic is planning, Participatory planning, Operational planning, Core planning, Institution-oriented planning, and Rolling planning.

The advocacy planning was a term coined by Paul Davidoff in an article published in the Journal of the American Planning Association. In his model, Davidoff suggests that different social groups should be allowed to propose rival plans and programs for development of a city, region or neighborhood. These designs can compete with each other to obtain the best plan or program for development (Clavel, 1994; Marris, 1994; Checkoway, 1994; Harwood, 2003; Gamal, 2010).

Strategic planning is an approach that allows the planning process to be founded upon reliable understanding and realistic possibilities, and the decision-making process, rather than being deterministic, is geared toward amending the actual and progressive trends.

According to this model, planning should be a step-by-step process for accomplishing goals. As a result, strategic planning was emerged in response to the inherent flaws of comprehensive plans in meeting the needs and guiding future growth and development (Wu, 2007; Hall, 1994). Participatory planning involves planning with the contribution of people. These people can embrace a wide range of stakeholders depending on the subject and field of work. In other words, participatory planning could be defined as: a set of processes through which different groups and desires interact to reach consensus on a plan and its execution method (Khadem al-Husseini, Arefipoor, 2012; Mousavi Jahromi, 2012).

Operational planning is a model in which general objectives are swapped with operational goals and the process of achieving these goals is predicted in terms of a series of operations. In operational planning, the partial goal is developed into an operational plan and the procedure of attaining the goal is stated in details (Mobayeni Dehkordi, Salmanpour Khoei, 2006). Core planning lies at the heart of development planning and is based on directing cores and executable programs. The latter is a set of objectives, specific projects, arrangements and executive organization to dismantle a development barrier or to erect a development hub. No development plan could be executed without specific projects at the heart of executive programs (Mahmoudi, Majed, 2012; Derakhshan, 2004; Tofigh, 2004) Institution-oriented planning is the type of planning which is based on the coordination between official and unofficial institutions and which is done by negotiating individual, organizational, sectoral, regional and national considerations, harmonizing short and medium term trends and considerations with long-term concerns, coordinating institutions, policies and strategies within the government, linking government and the market public and private enterprises, and managing their affairs (North, 2003; Motewaseli, 2017).

Rolling planning is a model in which, after defining the time horizons (5 or 10 years), every 2 to 3 years, or even annually, the entire program is reviewed and proportional to the extent of progress and the depletion or accomulation of financial resources. The program is re-structured according to the same time horizon, but based on new statistics and information (Parliament Research Center, 2011).

3. Research Methodology

3.1 Geographical Scope of the Research

Yazd province with an area of 74493 square kilometers is located in the central part of Iran's plateau at 29º 35' to 35º 7' north latitude and 52º and 50' to 58º and 16' east longitude. In terms of the area, it is the eighth largest province in Iran. Geographically, this province is positioned in the center of Iran and is surrounded by the provinces of Semnan, South Khorasan, Kerman, Fars and Isfahan. According to the latest administrative divisions of the country in 2015, Yazd province has 10 cities, 21 towns, 21 districts and 45 villages (Statistical Yearbook of Yazd Province, 2016). Based on the results of the latest population and housing census conducted in 2016, the population of the province was 1138,533 (Figure 1).

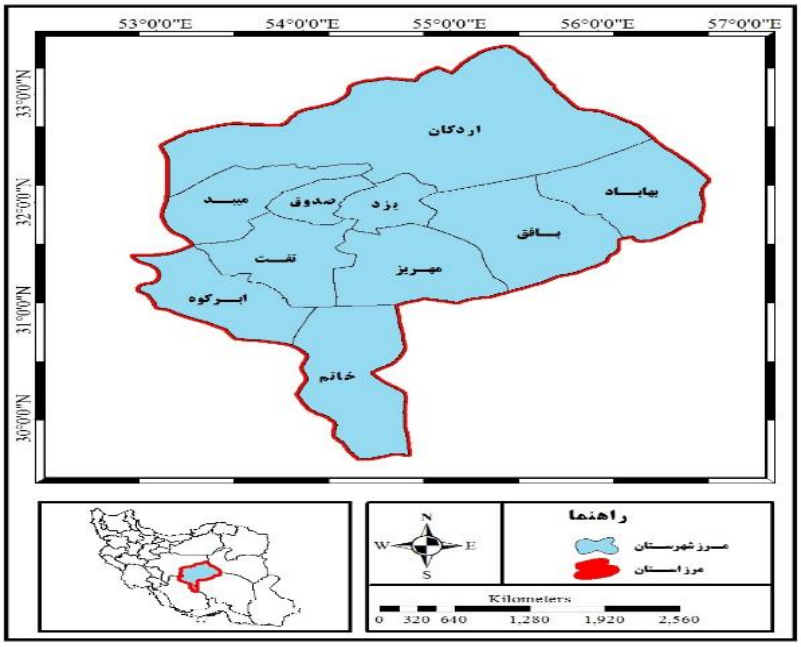

Figure 1. Political situation of cities in Yazd province

(Source: Management and Planning Organization of Yazd Province, 2018)

3.2. Methodology

This is an applied research and the research method involves a descriptive-analytical procedure. The data collection was based on library resources (note-taking, Internet search) and field study (questionnaire, interview). In the present study, theoretical foundations were compiled by deductive method and the results were generalized on an inductive basis. The statistical population consisted of 146 members of the planning council of Yazd province, planning council of cities and towns of Yazd and Rural Development and Sustainable Development Task Force, who were selected through purposive sampling. The purpose of this study was to analyze the characteristics of the model used in the sustainable development planning of rural economy in Yazd province and to identify the dominant model. Accordingly, selection of the indicators for operationalizing these two objectives was primarily based on document analysis, which indicated that the rural planning model as a system, like any other model as a system, comprises of three parts: 1. Planning and designing the model (architecture), which embraces principles, framework and process; 2. Managing the model (Architectural execution) and 3. Monitoring and evaluation of the model (Roknodin Eftekhari, Pourtaheri, Rahmani Fazli, Khalifeh, 2016). After identifying the components of planning, we also considered consensus at the level of international organizations and institutes as well as development planning experts in relation to these indicators. Hence, the main indicators of development planning models employed by organizations, institutions and international bodies were ranked (Table 1). After extraction, the validity and reliability of indices were assessed by eight

university professors and provincial specialists. After revising and improving the indices based on feedbacks received from professors, they were incorporated in a questionnaire on a Likert scale to identify the characteristics of the dominant model for sustainable development of rural economy. Following the verification of content validity by 15 senior provincial planners, who were part of the study population, they were analyzed and evaluated by the community of state actors (146 people). It should be noted that in the analysis of information, descriptive findings including frequency and mean and inferential findings including one sample *t*-test were used.

4. Research Findings

The research findings include descriptive and inferential findings which are presented in two separate sub-sections.

4.1. Descriptive Findings

Based on the analysis of documents and also comments received from a panel of 15 specialists of rural planning, the components of the planning system and their relevant indicators were identified and assessed by government actors (146 members of the Provincial Planning Council, the Rural Development and Sustainable Development Working Group). The descriptive results of this assessment suggest that according to the local government actors, out of the 33 features under study, only three features including "considering vision document and the macroeconomic plans of the country in designing and finalizing a sustainable rural development program" (*M*= 3.16); "the legal status of rural management in the implementation stage" (*M*=3.21), and "the central government's impact and the influence of its economic goals on defining provincial-level program goals" (*M*=3.21) were above average.

According to the results, the highest mean for the framework indicator was obtained for "considering vision document and macroeconomic plans of the country in designing and finalizing a sustainable rural development program in Yazd province" (*M*= 3.16). For the principle indicator, the highest average was related to "the legal status of rural management in the design and execution of the development program" (*M*=2.85). As for the process indicator, the highest average was achieved by "the extent of consideration of all aspects of rural economy in Yazd province in designing and drafting the program (*M*=2.78). With respect to the management and execution indicator, the highest average was associated with "the extent of consideration of all legal requirements in the implementation process" (*M*=2.81). Among the indicators of evaluating the program prior to, during and after execution, "the extent of monitoring the decision-making and goal-setting in rural development planning" (*M*=2.86), "the extent of monitoring and evaluation of the proper execution of the program, and accomplishment of objectives" (*M*=2.51) and "benefiting from participation of local communities and other stakeholders at the monitoring and post-execution evaluation stage" (*M*=2.82) obtained the highest average. The average of other characteristics is given for each indicator in Table 1.

Table 1. Descriptive Evaluation of Features of Rural Development Planning System in Yazd Province
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Framework	The extent of considering the decision-formation and decision-making principle	0	41	88	17	0	2.83	0.61
	Transparent role of each organization, institution and agency in the decision-making process	0	57	89	0	0	2.60	0.48
	Considering the vision document and macroeconomic plans of the national economy in designing and drafting	0	40	42	64	0	3.16	0.83
	Considering the current obligations (existing potentials and capacities) to execute the program	0	14	112	20	0	2.39	0.49

Table 1.

	Feature	None	Little	Medium	High	very high	AVER	STD
Framework	Impact of central government and government economic objectives on designing provisional program goals	0	11	93	42	0	3.21	0.56
	Adherence to the top-down trend in the development planning system of Yazd province	37	51	58	0	0	2.14	0.79
	Considering the feasibility of the program at the decision-making stage	0	20	126	0	0	2.86	0.34
Principles	Planning based on the needs and demands of local communities in the province	0	74	72	0	0	2.49	0.50
	Benefiting from participation of community and other stakeholders in development planning	37	51	38	20	0	2.28	0.99
	Legal status of rural management in the preparation and compilation of the development program	4	42	71	29	0	2.85	0.76
	Considering spatial and economic trends and variations in planning of province development	37	0	109	0	0	2.49	0.87
	Including all stakeholders in planning sustainable development of rural economy	0	72	74	0	0	2.50	0.50
	Considering strategic perspective in the regional development vision for sustainable development planning	37	17	92	0	0	2.37	0.86
	Considering endogenous factors in sustainable rural development planning	57	52	37	0	0	2.47	1.24
Process	Considering the temporal aspect (timely execution of the program) in implementing the program	0	57	89	0	0	2.6	0.48
	Flexibility of the decisions and program against temporal conditions	0	125	21	0	0	2.14	0.35
	Considering the time schedule of the program (steps defined to reach the goals)	0	57	89	0	0	2.60	0.48
	Considering all aspects of rural economy of Yazd province in drafting programs	6	54	52	34	0	2.78	0.85
Management and execution	The extent of involving local people and other stakeholders in the execution phase	0	111	35	0	0	2.23	0.42
	Legal status of rural management during the execution phase	0	23	71	49	3	3.21	0.72
	Integration and coordination (vertical connection) of organizations with legal status	20	54	72	0	0	2.35	0.71
	The sessions and workshops held by relevant organizations	0	71	38	37	0	2.76	0.83
	The extent of considering legal requirements in the execution process	3	46	72	25	0	2.81	0.73
Pre-execution evaluation	The extent of monitoring decision-making and setting goals in rural development planning	0	20	126	0	0	2.86	0.34
	The extent of overseeing the compatibility of the decisions made with the goals of relevant communities	37	37	72	0	0	2.23	0.83
	The extent of monitoring the feasibility of decisions	0	37	109	0	0	2.74	0.43

Table 1.

	Feature	None	Little	Medium	High	very high	AVER	STD
	The extent of monitoring to evaluate the results of decisions with defined goals	0	20	126	0	0	2.86	0.34
Evaluation during execution	The extent of monitoring and evaluation of the process and proper execution of the program	0	71	75	0	0	2.51	0.50
	The extent of involving local communities and other stakeholders in the monitoring and evaluation phase	37	88	21	0	0	1.89	0.62
	The extent of considering the review cycle (periodic evaluation of plan progression and compliance with the conditions)	57	0	89	0	0	2.21	0.97
Post-execution evaluation	The monitoring and evaluation of the program to determine the extent to which the program's goals have been realized	0	88	58	0	0	2.38	0.49
	The extent of involving community and other stakeholders in the monitoring and final evaluation phase	3	46	70	27	0	2.82	0.74

In the next step, to determine which conventional models of development planning match the characteristics of Yazd development planning model, after studying the documents and using a panel of eight faculty members, seven patterns were identified and the characteristics of each pattern were extracted and subject to the analysis of content validity. Then, the characteristics of each pattern were incorporated in a questionnaire, and the study population (state actors) was asked to score characteristics of each model based on its compliance with characteristics of planning sustainable development of rural economy in Yazd province. The results of descriptive evaluation of the statistical society score can be presented as follows:

1. The mean values of four characteristics of the advocacy planning model were lower than the average, and the mean of the only planning element that embraces social and economic aspects, not mere physical planning, was higher than the average (3.10) (Table 2).

Table 2. Descriptive Findings concerning the compatibility of features of Yazd Development Pattern with characteristics of advocacy planning model

(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Advocacy planning model	The selection of optimal development plan from among several plans developed by different organizations	44	63	34	2	3	2.02	0.88
	The bottom-up planning process in line with the participation of actual stakeholders, especially disadvantaged classes	64	22	47	4	9	2.13	1.19
	The planner is the representative and proxy of the local people and fully cognizant of their needs and demands	30	39	70	7	0	2.36	0.86
	Planning is entwined with the values and priorities of people	31	55	46	14	0	2.29	0.91
	Planning involves social and economic aspects, not just physical planning	7	19	81	30	9	3.10	0.87

3. In the operational planning model, the mean of two features of "short-term horizons of the program in the operational planning model" with an average of 2.80 and "addressing the priority problems in the region with an average of 2.95" is below average while the mean value of other features are above the average (Table 3).

Table 3. Descriptive Findings concerning the compatibility of features of Yazd Development Pattern with characteristics of operational planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Operational planning model	The time horizon of the program is short-term	4	41	80	21	0	2.80	0.70
	Objectives are related to specific a subject and group	5	22	35	71	13	3.44	0.96
	Achievement of predefined goals is confined to a certain time period	10	31	47	45	13	3.13	1.06
	Priority problems in the region are investigated	10	36	55	41	4	2.95	0.95
	Planning is based on an initial assessment of the internal and external context in an area	15	25	45	60	1	3.04	1.01
	Planning is made at high organizational levels and participation of people in decision making is limited	15	18	10	53	50	3.71	1.32
	The goals of this model are quantitative and aimed at effectiveness and usefulness rather than efficiency	17	18	10	52	49	3.67	1.36
	It is in line with high-level goals of the planning	10	23	28	68	17	3.40	1.09

4. The participatory planning model consists of seven characteristics, which based on the evaluation, the mean values of seven characteristics were below the average. In this model, the lowest mean belonged to "the bottom-up planning process" with a mean of 2.08 (Table 4).

Table 4. Descriptive Findings concerning the compatibility of features of Yazd Development Pattern with characteristics of participatory planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Participatory Planning model	The planning process is bottom-up	52	57	20	7	10	2.08	1.14
	People have an active role in planning (preparing, drafting and implementing); people as the fourth pillar of government	6	67	65	8	0	2.51	0.66
	Planning is based on the needs and demands of the community and the local people	57	41	8	29	11	2.28	1.35
	The program is flexible and can be modified proportional to the progress in the field operations	46	43	25	9	3	2.04	0.96
	There is a hierarchy of policymaking levels and an integrated relationship between different levels of planning	43	25	37	34	7	2.56	1.26
	The high-level organizations play a vital role in the preparation and formulation of the program	67	31	8	39	1	2.15	1.27
	Local executives have a role in the execution and assessment of the program	33	66	32	11	4	2.22	0.97

5. The mean values of twelve characteristics of the strategic planning model were below the average. In this model, the lowest average was associated with the "prospective nature of the program (outlining the vision)" with a mean of 2.16 and the highest average belonged to the characteristics of "delivering heterogeneous services and conducting

studies tailored to conditions of each region for planning" with a mean of 2.46 (Table 5).

Table 5. Descriptive Findings concerning the compatibility of features of Yazd Development Pattern with characteristics of strategic planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	Very high	AVER	STD
Strategic planning model	Strategic planning is based on internal and external capabilities	24	38	64	20	0	2.54	0.92
	Prospective nature of the program (outlining the vision)	40	60	28	18	0	2.16	0.96
	Considering the beneficiaries and emphasis on community involvement in planning	66	25	24	31	0	2.13	1.20
	The hierarchy of policy-making levels and the relationship between different levels of planning	33	44	49	11	9	2.44	1.10
	The emphasis on flexibility, dynamism and modifiability of the program or its local revision	56	23	31	36	0	2.32	1.22
	Awareness of regional issues and goal setting based on these considerations	43	46	30	21	6	2.32	1.16
	Providing services and conducting studies with regard to specific conditions of each area for planning	28	56	28	34	0	2.46	1.05
	Considering the role of people in the stages of preparing and drafting plans and ensuring the compatibility of the goals of program with pubic demands	37	36	55	18	0	2.36	0.99
	Considering an active role for local institutions in the preparation, implementation and monitoring of the program	36	40	46	24	0	2.39	1.03
	Preparing the plan based on national and regional policies and changes and descriptions of the program relative to regional conditions	57	29	36	18	6	2.22	1.20
	Considering the concept of revision and modification in the executive process and the proposed system	34	58	27	27	0	2.32	1.03
	Investigating the feasibility of the program based on studies	60	28	36	16	6	2.17	1.20

6. Among the features of planning, the mean value of "planning based on key stimuli" (*M*=3.27) was above the average level, while the average of other features was lower than the average (Table 6).

Table 6. Descriptive findings concerning the compatibility of features of Yazd Development Pattern with characteristics of rolling planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Rolling planning model	It has short-term horizons (18 months)	64	25	28	24	5	2.18	1.25
	The dominant process in this model is bottom-up	58	42	17	15	14	2.21	1.32
	It is based on recent conditions and awareness of regional changes	28	47	58	13	0	2.38	0.89
	There is a high level of flexibility in revision	46	62	27	11	0	2.02	0.89
	The process of continuous planning and future outlook in planning is systematic	50	26	49	21	0	2.28	1.08
	It is based on key drivers	2	22	65	48	9	3.27	0.84

7. The core planning model is composed of nine characteristics, among which, the mean values of six features including "relying on the prioritization of plans based on expert opinion in each region", "recognition of the status quo by consulting experts and organizational specialists", "planning based on propelling and developmental cores", "constrained participation of people that is limited to consideration of local elite", "the top-down planning process based on comprehensive goals and strategies", and "quantitative nature of goals with assessment ability" were higher than the average (Table 7).

Table 7. Descriptive findings concerning the compatibility of features of Yazd Development Pattern with characteristics of core planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Core planning model	It is based on fundamental needs of each region.	32	19	78	8	9	2.60	1.07
	It relies on the prioritization of plans in each region and views of experts.	0	5	102	39	0	3.23	0.49
	The status quo is evaluated based on views of specialists and organizational experts	1	22	56	65	2	3.30	0.76
	It is based on a propelling and developmental core aimed at regional development	14	23	75	25	9	3.08	1.05
	The program is limited to the main challenges and potentials	9	35	78	24	0	2.80	0.78
	People's participation is limited to consideration of local elites' views	0	22	41	79	4	3.44	0.77
	The planning process is top-down and the program is based on comprehensive goals and strategies.	5	12	47	76	6	3.45	0.83
	Objectives are quantitative and possess high evaluation capability.	1	24	53	54	14	3.38	0.89
	The planning levels are adaptable and integrated	25	20	62	39	0	2.78	1.02

8. The institution-oriented planning model consists of four characteristics. The mean values of these four characteristics were below the average level. The lowest mean in this model is related to "bottom-up trend of planning" with an average of 2.17 (Table 8).

Table 8. Descriptive findings concerning the compatibility of features of Yazd Development Pattern with characteristics of institution-oriented planning model
(Source: Research finding, 2018)

	Feature	None	Little	Medium	High	very high	AVER	STD
Institution-oriented planning	It is based on fundamental needs of each region.	42	52	40	8	4	2.17	1.00
	It relies on the prioritization of plans in each region and views of experts.	37	65	20	24	0	2.21	1.00
	The status quo is evaluated based on views of specialists and organizational experts	42	46	47	11	0	2.18	0.93

Based on the overall descriptive results presented in this section, the mean values of the proposed features (including planning is at high organizational levels; the role of people in decision-making is constrained; the goals of planning are quantitative and prioritize usefulness and effectiveness over efficiency; planning is in line with higher-level goals; planning relies on key drivers; the planning process is top-down; planning is based on comprehensive goals and strategies; planning is based on an initial assessment of the internal and external conditions of a region based on the views of experts) were above average and mean values of the other characteristics were below the average.

4.2 Inferential Findings

A one-sample *t*-test was adopted for inferential evaluation of the features of rural development planning system in Yazd province. For this purpose, the features identified by state actors were analyzed in the form of components (framework, process, principles, execution and evaluation in the three phases of prior to, during and after the execution of the program) by one sample *t*-test. According to this test, the characteristics associated with each component are considered as the premise and are confirmed or rejected in accordance with the views of the community of public actors. The results of this test at 99%

confidence level indicated the characteristics of all studied elements were rejected (Table 9). The results of this test validate the descriptive findings of the research. The averages obtained from descriptive findings of the study suggested that out of 33 characteristics studied, only three had an average above the optimal level and the average of other characteristics was lower than the optimal level, thereby indicating the undesirability of the features in the sustainable development planning of rural economy in Yazd province (Table 9). In general, based on the findings of the research and interviews, the characteristics of the sustainable development planning of rural economy in Yazd province can be presented as follows:

Preparation and compilation. Some of the characteristics of preparation and compilation component include:

1. Non adherence of the Yazd province planning system to the principle of decision shaping at the low organizational level and decision-making at the top organizational level- which is one of the characteristics of new planning (interactive-communicative). Evidence suggests that decision-shaping and decision-making in relation to rural economic planning in Yazd province take place at high organizational levels and sometimes without any knowledge of rural areas or based on out-of-date information.

2. The unclear role of each organization, institution and department in the decision-making process. Some council members, who have played a pivotal role in rural development, have pointed out that some tasks, subject to their area of expertise, fall on certain organizations, which are not only in charge of investigating and determining the objectives but also in charge of their execution.

However, in the planning system of the province, some roles are delegated to organizations that lack sufficient expertise in that field, or some specialized roles are assigned to several organizations at the time of execution. Not only does this cause dissidence between organizations involved in execution and achievement of goals, but also lead to disruptions in monitoring and evaluation, and accurate reporting of the program progress.

3. Lack of consideration of the obligations and commitments (existing potentials and capabilities of the organization) for execution of the program in the preparation and designing of the program. In the decision making process, given that the decisions are taken at top organizational levels, and are imperative for low-level organizations during execution, the organizations are often given instructions irrespective of their potentials and capacity. It is usually due to lack of awareness at the decision-making level or distortion of the organizational face.

4. The impact of the central government and its quantitative economic objectives on the formulation of objectives at provincial-level planning. The planning of provincial economy development should be tailored to capabilities and in the light of the problems in the province. Evidence has long revealed that, at the rural level, irrespective of regional capabilities and constraints in accomplishing the government's quantitative goals, some activities are initiated that may be effective in the short run and help attain the quantitative goal, but in the long run, they would not be economically justifiable and pose a threat to the survival of the village.

5. Following a top-down approach in Yazd province's development planning system. According to the results, the development planning system of Yazd province is based on a top-down approach so that decisions are taken at the top organizational level, and bottom-line organizational tiers are under obligation to adhere to these policies.

6. Lack of attention to integrated relations of different levels (national, regional and local) in planning. With regard to the planning of rural development in Yazd province, the evidence demonstrated lack of an integrated association between planning levels. Based on the evidence and the results of interviews, it can be argued that in Yazd province planning system, the local level is only considered in the execution stage, where the emphasis is only on the legal status of rural managers in implementation. In other planning phases, the local level goes unnoticed. There are also no integrated and bilateral relations at the national and regional levels, and most of these relationships are imperious in nature so that the programs are executed at the regional level to achieve state-level macroeconomic goals.

7. Lack of integrity and coordination (vertical connection) among organizations with legal status in planning. The results and evidence suggest that in the planning system of Yazd province, in addition to absence of integrated relationships between planning levels, there is poor vertical

relations between decision-making and planning institutions at the provincial level.

8. Inconsistency of planning with needs and demands of local communities in the province. Evidence indicated that the needs of local communities in the planning and decision-making stage are not taken into account and the demands and aspirations of the villagers are not recognized. The results of interviews revealed that none of the organizations in charge of rural affairs had ever made an effort to analyze the economic feasibility of plans.

9. Non-participation of local communities and other stakeholders in the development planning. The centralization and the top-down view of planning in Yazd province, as mentioned earlier, has hampered the involvement of local communities in the province's planning system.

10. The legal status of rural management at the phase of preparation and design of the development plan. Councils and rural villagers are in charge of rural management at micro level. Results demonstrated that in the Yazd province planning system, rural management enjoys legal status only at the execution stage.

11. Lack of attention to the strategic vision of the regional development outlook in planning sustainable development of rural economy. According to the results of the test and interviews, some rural economy decisions are taken irrespective of the development outlook of the region and executed simply based on the managers' periodic performance.

12. The inflexibility of the decision-making and planning against time conditions. In this regard, the interviewees stressed that the adopted programs and decisions were practically inflexible and in the span between execution and completion of the program, the decisions taken at the outset of the program are virtually pursued, although the importance of decisions may have tapered off over time, or, in case of periodic evaluations, goals have not been met.

Program Management (Execution). Some features of the program management element (program execution) in the planning system of Yazd province are as follows:

1. Non-participation of local people and other stakeholders in the execution phase of the development plan. In the planning stages of rural planning, whether in terms of preparation and formulation or management and execution and even monitoring and evaluation, local people are not involved and the process of development planning in the Yazd province is top-down.

2. The legal status of rural management during the execution phase. Based on the evaluation and results of the research, the presence of this feature in the planning system of Yazd province is approved so that the rural management possesses a legal status at the execution stage of the program, and at the execution stage of the program, consistent with goals and decisions taken at top-level centers, rural management is consulted to obtain defined goals. Given that in the view of state actors, the legality of rural development rights in the planning system of the province is only confined to the execution stage and rural management potentials remain untapped at the decision-making, monitoring and evaluation stage, it can be concluded that provincial planners have an instrumental approach to the participation of rural managers.

3. Failure to comply with legal requirements in the implementation process. The results of the study suggest that the legal requirements associated with the execution of program in Yazd province are largely ignored. The requirements ensure the implementation of policies and the realization of goals. In the absence of legal and executive requirements, the decisions made in the program either remain unexecuted or are conducted improperly. In this context, the decisions made in the areas of agricultural facilities can be mentioned. In the absence of specific legal and operational requirements, it is observed that relations, power, paperwork and banking policies in providing facilities hinder the realization of the goals associated with these decisions.

Monitoring and Evaluation. This element embraces three indicators of monitoring and assessment prior to, during and after execution. Some characteristics of this indicator in the planning system of Yazd province are as follows:

1. Monitoring the decision-making and goal setting in rural development planning. The results of *t*-test rejected this feature in Yazd province. This means that in the rural development planning system of Yazd province, there is no supervision over decision-making and goal-defining in the planning of rural development by institutions specialized in rural affairs. The findings of interviews suggest that the decision-making and setting of rural development goals are undertaken in the absence of any monitoring simply based on decisions of high-level organizations and the priority issues of

the province, and the supervisory bodies are the same top-level planning organizations. At the decision-making stage, none of the relevant organizations have any mechanism at place for monitoring decision-making process.

2. Lack of assessment of the compatibility of decisions with the goals of beneficiary communities at the decision-making phase. In the absence of any monitoring of decision-making, the consistency of decisions with the goals of relevant communities, the feasibility of decisions and the evaluation of their results compared to objectives are not evaluated.

3. The absence of any monitoring and evaluation for the proper execution of the program. In connection with this feature, the results demonstrated that during the execution phase of the program in Yazd province, there is no mechanism for monitoring and evaluation of the appropriate execution of the program. Apparently, what really matters is only the implementation of decisions.

4. Failure to consider review cycle (periodic assessment of the plan's progress and its compatibility with changing society conditions). The review cycle in the program improve the attainment of goals and adaption to the shifting conditions of the community during the program. The results suggested that in Yazd province, the assessment of the plan's progress and its consistency with changing conditions of the society are not taken into account. It should be noted that, as raised in some interviews, the periodic evaluation of the plan is merely in response to the demand of planning organizations for provision of statistical figures of the project and they are based on usefulness and effectiveness rather than efficiency.

5. The results revealed that in the Yazd province planning system, people do not have a say in the monitoring and evaluation phase of the programs and organizations preclude the intervention and engagement of local communities, elites and rural managers.

All of the above features are indicative of the top-down trend and centralization in planning in Yazd province, which based on the theoretical concepts of the research, indicate to the rule of traditional planning (rational) approach and disregard for the interactive and communicative approach in the planning system of Yazd province. In light of the above characteristics, the planning of rural economy in Yazd province follows a centralized approach and based on interviews with a number of informants, the development documents of the province are the only source of information for planning council of the province that notify planners about rural areas of the province and towns. Regrettably, the findings of this paper suggest that these developmental documents are out-of-date and local communities do not have a place in the preparation of these programs.

Table 9. Inferential evaluation of the characteristics of Yazd province planning system

(Source: Research finding, 2018)

Element	Index	Test statistics	Degree of freedom	Significance	Mean difference	99% confidence interval	
						Lower limit	Upper limit
Preparation and compilation	Framework	-12.283	145	0.00	-0.25771	-0.2992	-0.2162
	Principles	-9.618	145	0.00	-0.50294	-0.6063	-0.3996
	Process	-17.290	145	0.00	-0.46404	-0.5171	-0.4110
Management	Execution	-12.308	145	0.00	-0.32055	-0.3720	-0.2691
Evaluation	Pre-execution	-16.190	145	0.00	-0.32192	-0.3612	-0.2826
	During execution	-15.017	145	0.00	-0.79224	-0.8965	-0.6880
	Post-execution	-15.109	145	0.00	-0.34247	-0.3873	-0.2977

In order to identify the sustainable development planning model of rural economy in Yazd province among the common patterns of development planning presented in the Section of theoretical concepts and descriptive findings, a one-sample *t*-test was used. The results of this test at 95% confidence level confirmed the means in the descriptive findings of the research. Based on the overall results of this section, it became clear that the sustainable development planning model of rural economy is characterized by features such as "planning at high organizational level, limited role of people in decision-making, quantitative planning goals that prioritizes usefulness and effectiveness over efficiency, planning is aimed at high-level goals, planning is based on key stimuli, planning trend is top-down and based on comprehensive goals and strategies, planning is underscored by an initial

assessment of the internal and external setting of a region in line with expert opinions".

The aforementioned features are among the operational and core planning characteristics. Based on the results of the above test, Yazd province planning model characteristics are consistent with the features of operational and core planning models at 95% confidence interval but they are inconsistent with the other models.

The confirmation of test indicates that characteristics of the dominant model of sustainable rural development planning are compatible with the operational and core planning models. Based on the test statistics, the highest compliance belonged to the operational planning model with 7.464 and then core planning model with 2.788. In other words, based on the results of this test, the operational-core model is the dominant pattern of sustainable development planning of rural economy in Yazd province, as the evaluated features for sustainable rural development planning displayed the most adaptability with the characteristics of these two models (Table 10).

Table 10. Inferential evaluation of the consistency of the characteristics of the planning system of the province with planning patterns (pattern identification)

(Source: Research finding, 2018)

Model/approach	Test statistics	Degree of freedom	Significance	Mean differences	Lower limit	Upper limit
Advocacy	-16.775	145	0.00	-0.61781	-0.6906	-0.5450
Strategic	-15.860	145	0.00	-0.67523	-0.7594	-0.5911
Operational	7.464	145	0.00	0.27312	0.2008	0.3454
Collaborative	-18.907	145	0.00	-0.73288	-0.8095	-0.6563
Rolling	-18.021	145	0.00	-0.60731	-0.6739	-0.5407
Core	2.788	145	0.00	0.8219	0.0239	0.1405
Institution-oriented	-15.611	145	0.00	-0.80308	-0.9048	-0.9048

5. Discussion and Conclusion

The present study was undertaken to analyze the sustainable development planning model of rural economy in Yazd province. In this regard, two main questions were proposed. The first question focused on the characteristics of the sustainable development planning model of rural economy and the second one was concerned with selecting a model for sustainable development of rural economy planning from among the common development patterns in Yazd province.

These questions were answered based on quantitative and qualitative data, with the results indicating that the development planning of Yazd province was top-down with a centralized planning approach. According to the descriptive and inferential findings of the one-sample *t*-test (based on the test statistics, the upper and lower limit of all the indexes was negatively evaluated which, according to the assumptions of the test, illustrates the undesirability of studied characteristics in Yazd province), the subjects stressed that in the preparation and formulation phase of the planning, which includes framework, principle and process indices with a test statistic of 12.283, 9.618 and 17.290, respectively, objectives were not in keeping with the needs and demands of rural people. The contribution of local actors, including rural people, rural executives and elites were insignificant at all three parts, and in this regard there was no mechanism for monitoring decisions, compliance with regional demands, feasibility of decisions, etc. The goals of the rural economy are defined irrespective of the geographical location of the region and the demands of indigenous people, are merely based on the general objectives of the country's medium-term development plans. The management and execution phase of the planning, with a test statistic of 12.308, besides taking advantage of rural management, suffers from many shortcomings, so that in addition to the limited role of people and stakeholders, there is no integration and coordination (vertical association) among organizations with a legal status in the execution of the program.

Also, based on the results of the study, the evaluation and monitoring of the program in Yazd province in pre-execution stage (16.190), during execution (15.017) and post-execution stage (15.109) was not satisfactory and according to the results of interviews, there is not any organization in charge of this task and planners tend to monitor

and evaluate the program quantitatively (with statistical figures) only after the execution of program. Some other features of rural development planning system in Yazd province are failure to consider the exhaustiveness of the aspects of rural economy of Yazd province for prioritizing the development of the program; absence of a timeline for program execution (certain steps to achieve program objectives); absence of integrated relationships between different levels (national, regional and local) in development planning; the unclear role of each organization, institution and body in the decision-making process of rural planning; disregard for tendencies and spatial-temporal trends and diversities in the development planning of Yazd province; and exclusion of time factor (timely execution of the program) during the execution of development plan. According to the results of one-sample *t*-test, it became clear that the model of sustainable development planning of rural economy of Yazd province is compatible with the operational-core planning models in terms of characteristics and adheres to rational approach in planning.

According to the results, the inefficiency of rural development programs in Yazd province can be attributed to the centralized planning system of the province, which is executed irrespective of local conditions and capabilities. Therefore, since the experience has demonstrated that planning without involvement of people and local capabilities is doomed to failure, it is suggested that in Yazd province, instead of using the operational-core planning model, a participatory-strategic model is adopted, which is based on the assumptions of the interactive-communicative approach. According to this model, local communities are involved in the planning process and planning is made based on local potentials, capabilities, and constraints. In order to achieve this model, the following solutions are presented.

- *Establishing a legal status for representatives of local communities at the City Planning Council.* The analysis of documents related to the members of the City Planning Council shows that local communities have no place in this council. Therefore, it is not surprising that sustainable rural development planning in the province are not compatible with needs, capabilities and constraints of local communities, while at the lowest level of planning, local communities have no say. Therefore, it is suggested that representatives of local communities are granted a legal status and the voting right at least in relation to rural development meetings in the Planning Councils for cities of Yazd province.
- *Setting up small knowledge-based circles at the provincial level.* Considering that the development documents of cities are one of the major sources of sustainable development planning of rural economy at the provincial level and are in keeping with the decentralization of planning, it is suggested that small and focused circles of experts and specialists in rural planning and development are established in order to capitalize on benefits such as indigently and familiarity with the region and its demands in drafting the development document of the city. The analysis of the development documents in 10 regions of the province showed that all documents were drafted by the companies, which in some cases had no affiliation to that city. Given the large number of native graduates, it is possible to set up these small knowledge-based circles to exploit the capacity of rural planning.
- *Selection of executive officials of rural development at the lowest organizational level based on their expertise in the province.* The author's observations in the province illustrated that the majority of district deputies, who as the lowest organizational rank in the Ministry of the Interior are affiliated with rural affairs, had no academic background in fields related to rural affairs and their choice is primarily motivated by political considerations. However, the district deputy should be a specialist of rural affairs as one of the most important people in rural planning and development. The appointment of people with irrelevant qualifications not only hampers rural development, but also in many cases triggers conflicts between rural and district managers.
- *Specialization of village manager at rural levels in the province.* Village managers are recognized rural managers who act as the liaison between villages and planners, administrators, and rural-scale supervisors. Therefore, it is reasonable to appoint Village manager according to certain indicators to eschew from ethnic-tribal appointments that prevails at villages in relation to the councils and Village manager. Observations in Yazd province suggest that in some villages under study, the councils make appointment on the basis of ethnic-tribal concerns, which resulted in recruitment of unqualified, people Therefore, it is crucial to set requirements for

selection of Village manager such as relevant academic degrees.

- *Establishing a theoretical and conceptual base for rural planning in the province*. Development planning in Iran has a long history, but there is still no common understanding of the concept of development and in particular rural development planning in the country. Although the development programs are focused on these concepts, none of these programs provide a clear definition of these concepts, dimensions and features. However, these concepts should have been proposed, defined and verified by experts from the outset of the planning in Iran. Moreover, there are different perceptions and conceptions of development in the country, some of which include development as an operational plan, development as a process or development as a product. Reference to each of these conceptualizations illustrates the processes that should be undertaken in development planning, people that should be engaged and the results that should be obtained. Therefore, what is necessary at the onset of rural development planning, especially at the provincial level, is to define the concept of rural planning, indicators, goals, paradigms, stakeholders, relevant organizations, planners and program managers, which should achieve national consensus among experts and thus become the ideology of the rural planning system.
- *Promoting the status of stakeholders in the province's planning system.*In order to promote all aspects of rural development, especially the economic dimension, all stakeholders engaged in sustainable development planning (state and non-state) should be identified at the province prior to the commencement of the program. In this way, the human and organizational capacities associated with rural development are identified. Not only does it allow the adoption of policies / strategies and realistic and efficient goals tailored to the needs and capabilities approved by all stakeholders at the decision-making level, but also the execution of the program based on recognized organizational and human capacities. In other words, a variety of actors are involved in the rural development at provincial level, and the sustainable rural development program has a bearing on the performance of these actors. Therefore, when drafting a program, a consensus between these actors about the priorities and rules of this program is necessary.

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چکیده مبسوط

۱. مقدمه

از برنامه چهارم توسعه کشور، تهیه و تدوین سند ملی توسعه استان سازوکار اجرایی گرفته (ماده‌های قانونی ۷۲ و ۸۳) و علی‌رغم دیدگاه همیشه غالب برنامه‌ریزی بالا به پایین با اجرایی شدن سندهای توسعه استان دیدگاه پایین به بالا نیز در کنار دیدگاه قبلی در برنامه‌ریزی کشور و غیر متمرکز شدن نظام برنامه‌ریزی توسعه نیز بر حسب ظواهر امر مد نظر قرار گرفته است. اما با این وجود شواهد چند برنامه اخیر نشان می‌دهد که برنامه‌ها به اهداف خود دست نیافته‌اند. از این رو پژوهش حاضر با آگاهی از موضوعات فوق (اولاً: با گذشته چندین دهه از برنامه‌های عمرانی و توسعه در کشور همچنان روستاها با مشکلات بسیاری روبرو بوده و هر سال بر تعداد روستاهای خالی از سکنه افزوده می‌گردد و دوما از برنامه چهارم توسعه بر اساس ماده‌های قانونی نام برده شده برنامه‌ریزی غیر متمرکز و تدوین سند توسعه استانی مد نظر قرار گرفته است اما هنوز برنامه‌ها به اهداف خود دست نیافته‌اند) به تحلیل و بررسی نظام برنامه‌ریزی توسعه پایدار اقتصاد روستایی استان یزد پرداخته است. چرا که آمارها نشان می‌دهد استان یزد یکی از استان‌های مطرح در زمینه ناپایداری جمعیت روستایی در ایران محسوب می‌گردد. نسبت روستانشینی در این استان از ۲۰ درصد در سال ۱۳۸۵ به ۱۷ درصد در سال ۱۳۹۰ و ۱۴/۶۴ درصد در سال ۱۳۹۵کاهش یافته است که نشان از شدت تخلیه روستاهای استان دارد. ضمن اینکه رشد سالیانه جمعیت روستایی استان یزد نیز ۱/۶۶- درصد است. مشاهدات در استان نشان می‌دهد هر چند برنامه‌های توسعه از نظر اجتماعی موجب بهبود برخی از خدمات اجتماعی همچون سطح بهداشت و آموزشی گردیده، اما از نظر اقتصادی نتوانسته است به اهداف خود دست یافته و موجب پایداری اقتصادی در روستاها گردد.

۲. مبانی نظری

در فرآیند برنامه‌ریزی توسعه دو بخش شامل: الف) دیدگاه، اهداف و رهیافت‌های حاکم بر فرایند توسعه و ب) فرایند حاکم بر روند و چگونگی عمل برنامه‌ریزی به وضوح از یکدیگر قابل تفکیک و همزمان نیازمند توجه است. این دو مقوله در عرصه نظری به دو گروه از نظریه‌ها باز می‌گردند که اولی به "نظریه در برنامه‌ریزی" و دومی به "نظریه برنامه‌ریزی" معروف هستند. به نظریه‌های مستقل در رشته‌های مختلف علمی مانند نظریه‌های اقتصادی و اجتماعی که اساس کار برای تدوین برنامه‌های توسعه به دست برنامه ریزان هستند، نظریه در برنامه‌ریزی گفته می‌شود؛ اما نظریه برنامه‌ریزی معطوف به عناصر، مراحل و نحوه انجام برنامه‌ریزی است که ماهیت و چگونگی فرایند و عمل برنامه‌ریزی را نشان می‌دهد. مبحث مورد نظر این پژوهش نیز در ارتباط با نظریه برنامه‌ریزی می‌باشد. بر اساس مطالعه اسنادی به توجه به عناصر، مراحل و نحوه انجام برنامه ریزی؛ هفت الگوی رایج برنامه ریزی شامل برنامه ریزی وکالتی، راهبردی، مشارکتی، عملیاتی، هسته‌ای، نهادگرا و غلطان در دنیا قابل شناسایی است.

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۳. روش تحقیق

پـژوهش حاضـر از نظـر ماهیـت کـاربردی اسـت. روش تحقیـق آن توصیفی- تحلیلی و داده‌های آن از طریق منـابع کتابخانـه‌ای شـامل (فیش‌برداری، اینترنت) و میدانی (پرسشنامه، مصاحبه) فراهم گردیده است. در پژوهش حاضر جمع‌آوری مبانی نظـری بـه روش قیاسـی و تعمیم نتایج به صورت استقرایی بوده اسـت. جامعـه آمـاری تحقیـق شامل ۱۴۶ نفر از اعضای شـورای برنامـه‌ریزی اسـتان یـزد، شـورای برنامه‌ریزی شهرسـتان‌های اسـتان یـزد، کـارگروه تخصصـی توسـعه روستایی و توسعه پایدار بوده است که بـه صـورت هدفمنـد انتخـاب گردیده‌اند. هدف از پژوهش تحلیل ویژگی‌های الگوی حاکم بـر نظـام برنامه‌ریزی توسعه پایدار اقتصـاد روسـتایی اسـتان یـزد و شناسـایی الگوی حاکم بوده است که در این راستا انتخاب شـاخص‌ها در جهـت عملیاتی کردن این دو هدف در درجه اول بر اساس تحلیل اسنادی و در نهایت متکی بر مصاحبه نیمه ساختاریافته و پرسشنامه می باشد.

۴. یافته‌های تحقیق

به منظور ارزیابی ویژگی‌های نظـام برنامـه‌ریزی توسـعه روسـتایی در استان یزد از آزمون T تک نمونـه‌ای اسـتفاده گردیـده اسـت. بـدین منظور ویژگی‌های شناسایی شده و پرسش شده توسط جامعه آماری کنشگران دولتی در قالب عناصر (چـارچوب، فراینـد، اصـول، اجـرا و ارزیابی در سه حالت قبل از برنامه، در حین اجـرای برنامـه و پـس از اجرا) توسط آزمون T تک نمونه‌ای مورد ارزیابی قرار گرفته است. بـر حسب این آزمون ویژگی‌های مرتبط با هر عنصر به عنوان یک فـرض در نظر گرفته شده و بر حسب نظرات جامعه کنشگران دولتـی مـورد تائید یا رد قرار گرفته است. نتایج ایـن آزمـون در سـطح ۹۹ درصـد اطمینان نشان از رد ویژگی تمامی عناصر مـورد مطالعـه دارد. نتـایج این آزمون تائید کننده یافته‌های توصیفی پژوهش می‌باشد. چـرا کـه بر اساس میانگین‌های به دست آمده در یافته‌های توصـیفی پـژوهش مشخص گردید که جامعه آماری کنشگران محلی از ۳۳ ویژگی مـورد بررسی تنها میانگین سه ویژگی را بالاتر از مطلوبیت عـددی ارزیـابی کرده و میانگین سایر ویژگی‌ها پـایین‌تر از سـطح مطلوبیـت ارزیـابی گردیده است، که نشان از عدم مطلوبیت ویژگی‌های مطـرح در نظـام برنامه‌ریزی توسعه پایدار اقتصاد روستایی در استان یزد دارد.

۵. بحث و نتیجه گیری

بر اساس افتـه هـای تحقیـق در ایـن پـژوهش مشـخص گردیـد کـه برنامه‌ریزی توسعه استان یزد یک روند بالا به پایین با نگـاه مرکزیـت بر برنامه‌ریزی دارد. چرا که جامعه آماری پژوهش تأکید نموده‌اند کـه در مرحلـه تـدوین و طراحـی برنامـه، اهـداف بـر اسـاس نیازهـا و خواسـته‌های مـردم روسـتایی صـورت نمی‌گیـرد. سـهم مشـارکتی کنشگران محلی شامل مردم روستایی، مدیران روستایی و نخبگان در هر سه بخش تهیه و تدوین، اجرا و پایش و ارزیابی بسیار ناچیز بـوده و در بخش تهیه و تدوین هیچ نظارتی بر نحوه تصـمیم‌گیری، تطـابق تصمیم‌ها با نیازهای منطقه، قابلیت انجام تصـمیم‌ها و غیـره صـورت نمی‌گیرد. اهـداف اقتصـاد روسـتایی بـدون در نظـر گـرفتن شـرایط جغرافیایی منطقـه و نیازهـای مـردم بـومی بـر اسـاس اهـداف کلـی برنامه‌های میان‌مدت توسعه کشور نگاشته و بعضاً به اجرا در نمی‌آید. ارتباط عمـودی مـابین دسـتگاه‌ها تصـمیم‌گیرنده در امـور روسـتایی ضعیف بوده و برنامه‌ها فاقد قابلیت انعطاف در برابر تغییرات زمـانی و فاقد چرخه بـازنگری (ارزیـابی دوره‌ای پیشـرفت طـرح و انطبـاق بـا شرایط متغیر جامعه) می‌باشد. بر حسب نتـایج مشـخص گردیـد کـه الگوی برنامه‌ریزی توسعه پایدار اقتصاد روستایی استان یزد بر حسـب ویژگی با الگوی برنامه‌ریزی عملیاتی- هسته‌ای همخوانی داشته که از ویژگی‌های رویکرد عقلایی در برنامه‌ریزی پیروی می‌کند.

کلمات کلیدی: توسعه پایدار، اقتصاد روستایی، الگوی هسته ای، برنامه ریزی عملیاتی، یزد.

تشکر و قدرانی

پژوهش حاضر حامی مالی نداشته و حاصل فعالیت علمـی نویسـندگان است.

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

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Abstract

Purpose- Development of rural areas is one of the challenges of Iran. This has led experts to provide strategic solutions for the development of ecotourism and entrepreneurship, addressing the economic, social and environmental challenges of rural areas. Therefore, the present study aims to categorize9 selected villages in North Khorasan Province located along Bojnord-Golestan Road in terms of indicators of entrepreneurial ecotourism.

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

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

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

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

Key words: Entrepreneurial ecotourism, Rural development, Fuzzy hierarchy process analysis, Northern Khorasan.
Paper type: Scientific & Research.

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1. Introduction

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

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

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

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

What distinguishes this paper from previous research is its localization and focus on the nature and culture of the Northern Khorasan province, which calls for its own particular strategies in fitting with culture and customs of people in this region. Additionally, rural tourism in this research is evaluated with emphasis on ecotourism. It is intended to develop ecotourism and its entrepreneurial advantages in the economic, cultural and environmental dimensions from the outlook of identifying rural indigenous architecture and the natural capabilities and landscapes of rural areas.

2. Theoretical Foundations of Research

2.1. Rural Tourism

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

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

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

2.2. Ecotourism Entrepreneurship

Rural entrepreneurship has been one of the most important areas in the field of entrepreneurship in recent years. According to Wortman, rural entrepreneurship involves the establishment of a new organization that introduces a new product or

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

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

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

2.3. Interrelation of Ecotourism and Entrepreneurship

The growth of the tourism industry and the potential of this industry for economic development represents an interesting area of research in tourism." Taylor (year) posits that the main characteristic of the demand for tourism is its rapid change, believing that the supply side should have the ability to adapt quickly to variations in the market demand. In other words, a mechanism for receiving information and assessing the situation and reaction to the environment in the tourism system is required" (Kazemi, 2013). Therefore, tourism is sufficiently novel, chaotic and irregular to attract the attention of entrepreneurs. On a global scale, a group of individuals have been able to introduce transitional stages in tourism. For example, Thomas Cook is known as the father of mass tourism thanks to the opportunity provided by the invention of the steam engine and its huge potentials for transporting a large number of workers to tourism destinations. In the same way, Walt Disney is also recognized as "the father of theme parks". His creativity and initiative gave rise to a model of constructing theme parks in the world, which has made it possible to transform barren lands int commercial centers (Russell & Wallace, 2004). Sojasi Ghidari et al. (2014) contend that rural ecotourism is an entrepreneurial economic activity aimed at capturing new economic spaces in rural areas and integrating them into the economic cycle. In line with contemporary aesthetic economics, it leads to commodification of the nature in rural areas based on the principles of green economy within the framework of environmental entrepreneurship. Therefore, the relationship between entrepreneurship in tourism and sustainable regional development can be determined by investigating whether entrepreneurship has the potential to exert a positive impact on different economic, cultural and environmental aspects of the society. Entrepreneurship development in small-scale tourism can contribute to regional sustainable development by strengthening the identity of local culture, diversifying rural tourism activities, protecting rural residents in the region, and alleviating environmental pressures due to the small size of economic tourism enterprises. Accordingly, the corporate social responsibility (CSR) of enterprises in the field of tourism plays a crucial role in promoting responsible responses to environmental and social issues (Emani Gheshlagh, Khani & Hashemi, 2012). Therefore, entrepreneurship and innovation are two key factors in tourism, which are essential for the continuous success and development of the tourism industry both globally and regionally.

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

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

one can assure people that sustainable regional development in all of these tourist attractions will not be far-fetched (Ghanbari, 2003) North Khorasan Province (and its affiliated cities) has huge institutional and organizational capacities. Some of the parameters influencing the target population in this research have been presented in Table 2.

Table 2. Factors affecting the development of entrepreneurial ecosystems
(Source: Research Finding, 2018)

External factors	- Political changes - Development planning policies - Refrainment from segregated policies and parochial views - Organizational integrity and prevention of parallel works by administrative and organizational bodies - Analysis of tourists' ideas and desires
Internal factors	- The attitude and desires of the local community based on cultural, economic and social perspectives - Construction, agriculture and livestock infrastructure - Exploitation of natural and historical heritage

To investigate this issue and identify the strengths and weaknesses of the studied villages based on the information listed about determinants of ecotourism development, a review of theoretical foundations of the research was performed based on a conceptual model proposed by Khatibi, Fakhimzadeh & Buzarjomehri (2012) in an article entitled "Agricultural tourism feasibility study in South Khorasan Province" using the analytic hierarchy process (AHP) model. The four main indices of the research and the sub-indices are listed in Table 3. By assessing indices set in each village, the priority of villages in ecotourism can be determined.

Table 3. Indices and sub-indices of the research
(Source: Research findings integrated with the conceptual model of Khatibi et al., 2012)

Indices	Sub-indices
1. Agricultural and livestock potentials	- Area under cultivation for agricultural and horticultural products - Number of light and heavy-weight domesticated animals
2. Construction and residential infrastructure	- Proximity to population centers - Vicinity to main roads and access to transport routes - Service centers
3- Cultural-social attitude	- hospitality and willingness to accommodate tourists - The spirit of participation
4. Valuable historical – natural legacy	- Existing demand - Natural attractions: rivers, waterfalls and mountains - Number of tourists per year - Environmental issues (sewage, waste and sustainable energy)

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

3. Research Methodology

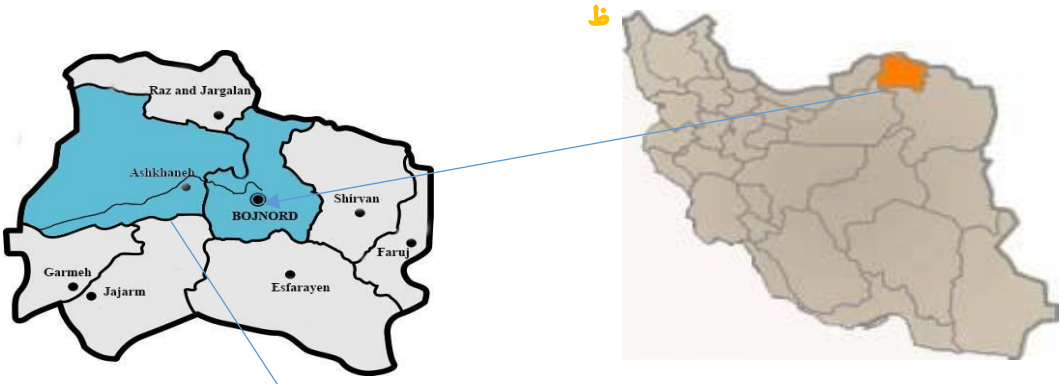
3.1 Geographical Scope of the Research

The study area covers the tourism villages in the northern Khorasan province, which are host to a score of travelers from different parts of Iran every year. The statistical population of this research in relation to rural ecotourism consisted of ecotourism villages in the study area. To explore this subject, the statistical society was divided in two groups. The first group comprised of the experts in this field (tourism experts and authorities) (Cultural Heritage Organization, Governorate, Environment Department), which were surveyed completely and the second group consisted of the local people (North Khorasan Governor, 2015) (See Figure 1). The data derived from 2016 Census are shown in Table 4.

3.2. Methodology

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

reliability was assessed using Cronbach's alpha method. The statistical population of this research consisted of inhabitants of Badranlou, Zaman Sufi, Armadelou, Spakhou, Darkash, Dasht, Shirabad, Juzak and Keshanak villages, which are in the proximity of the Bojnour-Golestan main road (the main axis of tourism) and were selected based on the inclusion criteria.



Bojnour-Golestan main road in North Khorasan map

North Khorasan in the map of Iran

Figure 1. The position of the selected villages on the main road of Bojnord to Golestan
(Reprinted from "Google map", 2018,
https://www.google.com/maps/@37.4064192,56.8033481,79692m/data=!3m1!1e3?hl=en)

The main criteria for choosing villages, as described in the introduction, were the proximity to Bojnord-Golestan road, environmental capacities and historical and cultural attractions, as well as a history of tourism attraction. Other criteria included essential infrastructures and utilities such as electricity, running water, telecommunications, high participation of people, specific fauna and flora species, diverse culture and dialects in the village and climatic conditions. The selection was based on cluster sampling and classification method.

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

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

After determining the total sample size, the self-designed questionnaire was distributed among the rural inhabitant and the results were analyzed. The clusters included prominent figures and specialists, experienced local people (elders) as well as members of the village council, who were cognizant of general and specific conditions of the village. Among people in each cluster, some were randomly selected to fill out the questionnaires. The Cochran formulas and other formulas used for cluster sampling and classification were adopted to calculate the sample size. In the first group, which involved experts in this field (tourism experts and authorities) (Bam Shahr-e Toos Consulting Engineers Co., 2013), all subjects completed questionnaires. In the second group, based on the local community census, the sample size was calculated using the Cochran formula with an error of 0.06. Table 4 shows the statistical population of the local people and the sample size.

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

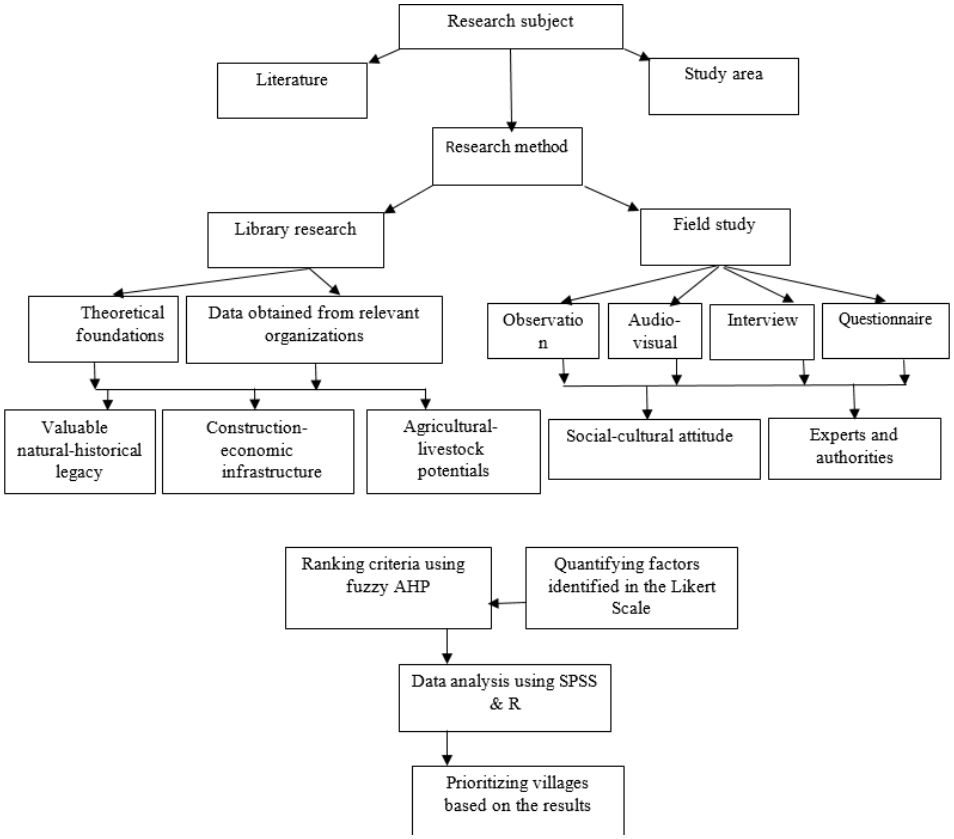


Figure 2. Research method structure
(Source: Research Finding, 2018)

The statistical analysis of this design was performed by SPSS software and Fuzzy AHP package in R. For the analysis of data derived from questionnaires, in addition to descriptive methods (including the percentages of each research variable and presentation of graphs), Kruskal-Wallis non-parametric test and paired comparison methods were also used. The Kursal-Wallis test is the equivalent of one-way ANOVA for ranking variables, which can be recruited to determine whether there is any difference between villages in terms of research

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

4. Research Findings

The results of statistical analyses indicate to significant differences between villages in terms of ecotourism potential. Indicators of entrepreneurial ecotourism in this study consisted of four indices: agricultural and livestock capacities (Agriculture), valuable natural-historical heritage (Tourism), cultural and social attitude index (Culture), and, finally, a construction and residential infrastructure (Construction). As shown in Table 5, the rank of each village in ecotourism indices was determined. According to the results of this table, Badranlou has the highest rank in the Agricultural index, Dasht has the highest rank in the cultural and historical heritage index, Shirabad has the highest rank in the cultural and social attitude index, and Dasht has the highest rank in the construction and residential infrastructure index.

Table 5. Status of entrepreneurial ecotourism Indicators for each villages
(Source: Research findings, 2018)

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

Table 6. Kruskal-Wallis test results for discrepancy of villagers' in entrepreneurial ecotourism development
(Source: Research findings, 2018)

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

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

4.1. Agriculture and Livestock Index

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

4.2. Valuable Natural and Historical Heritage Index

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

4.3. Cultural and Social Attitude Index

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

4.4. Construction and Residential Infrastructure Index

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

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

(Source: Research findings, 2018)

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

4.5. Investigating the Importance of Indicators of Entrepreneurial Ecotourism Development

In order to estimate the importance or weight of each indicator and sub-indicator mentioned in community-centered tourism using the FAHP model, a number of questionnaires were designed and distributed among tourists in North Khorasan and Tehran provinces. Given that the weights obtained from fuzzy AHP cannot be numerically reported, at this stage, we have presented non-fuzzy scores in Table 5. The results of these questionnaires based on the AHP method exhibited that "valuable natural and historical heritage" index with a weight of 5638 is more important than the rest of indicators, followed by "construction and residential infrastructure" (weight=26343), "cultural and social attitudes" (weight=0.1178) and, finally "agricultural and livestock potentials" (weight=0.0550). The results obtained from the Fuzzy AHP method are presented in Table 6, according to which the Dasht and Keshanak villages gained the highest and lowest tanks among 9 villages, respectively.

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

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

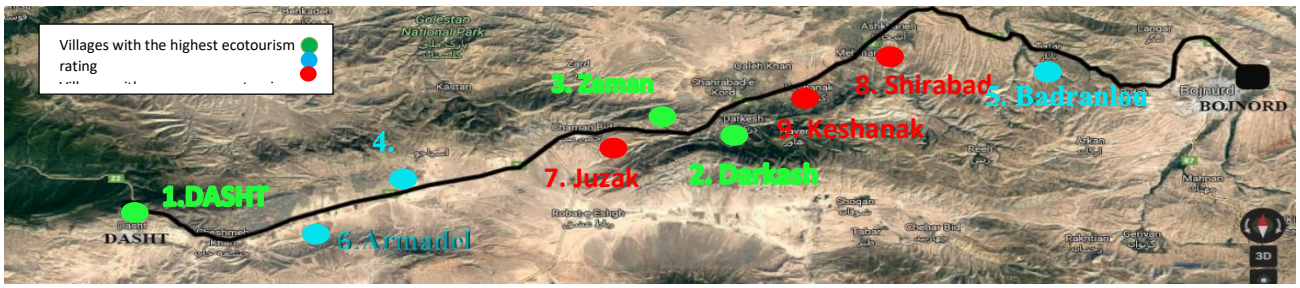


Figure 3. categorization and position of selected villages along Bojnord to Golestan road.
(Source: Research findings, 2018)

5. Discussion and Conclusion

The main concern of this research was to categorize tourist destination villages along Bojnord- Golestan road in terms of entrepreneurial ecotourism indices. By studying indicators affecting ecotourism area, which were classified into four categories based on theoretical foundations which comprised of natural and livestock potentials, cultural and social attitudes, construction and residential infrastructure, and valuable natural and historical heritage, the rank of each village was determined in terms of ecotourism, as depicted by the results of above tables and charts, especially Table 8.

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

main transport routes, the villages with the highest ranks should be given priority in strategic planning and development of ecotourism tourism as the vast potentials of these villages can help them to realize ecotourism with the lowest costs in a short period of time. As mentioned in the review of literature, there are studies on categorizing villages and ecotourism areas, especially in foreign countries, which have ranked rural areas with different indices according to the geographical features of areas under study. However, what distinguishes this research from other studies is the localization of this research and its focus on the nature and culture of the Northern Khorasan considering the absence of any research on the Northern Khorasan villages. Moreover, rural tourism in this research has been characterized by different indicators with an emphasis on ecotourism, with the aim of developing the ecotourism and its entrepreneurial benefits in the economic, cultural and environmental dimensions through identifying the indigenous rural architecture and natural capabilities and landscapes of villages (Figure 3).

Acknowledgments: The present research is based on a research project conducted for the Directorate General of Cooperatives, Labor and Social Welfare of North Khorasan Province.

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

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چکیده مبسوط

۱. مقدمه

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

۲. مبانی نظری تحقیق

دستیابی به توسعه منطقه‌ای که شرط لازم آن استفاده از امکانات و پتانسیل‌های همان منطقه می‌باشد لزوم توجه جدی تر به تورپسم منطقه‌ای را بیان می کند. از طرفی با نگاهی گذرا به جاذبه‌های طبیعی، تاریخی و فرهنگی که در هر بخش پراکنده می باشند می‌توان این امید را برای مردم زنده نمود که پیشرفت و توسعه پایدار منطقه ای با این همه جاذبه های گردشگری دور از دسترس نخواهد بود. برای بررسی این موضوع و شناسایی نقاط قوت و ضعف روستاهای مورد مطالعه بر مبنای اطلاعات جدول عوامل موثر در توسعه بومگردی، مرور مبانی نظری پژوهش و براساس مدل مفهومی که در پژوهشی توسط خطیبی و همکاران ۱۳۹۱ با عنوان " امکان سنجی گردشگری کشاورزی در استان خراسان جنوبی با استفاده از مدل تحلیل سلسله مراتبی AHP" انجام شده است ؛ چهار شاخص اصلی پژوهش پتانسیل های کشاورزی و دامی، زیرساخت های عمرانی و اقامتگاهی، نگرش فرهنگی – اجتماعی، میراث ارزشمند طبیعی- تاریخی تعیین شده است . با بررسی شاخص های تعیین شده در هر روستا اولویت بندی روستاها در بومگردی تعیین خواهد شد.

۳. روش تحقیق

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

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

۴. یافته های تحقیق

نتایج حاصل از این بررسی نشان دهنده این است که از لحاظ شاخص‌های کشاورزی تفاوت معنی‌داری بین این روستاها وجود ندارد و در مورد شاخص گردشگری اختلاف بسیار معنی‌داری بین روستاها وجود دارد. تحلیل اولیه نشان‌دهنده این واقعیت است که شاخص فرهنگی و اجتماعی در مورد این روستاها بالاتر از سطح استاندارد قرار دارد. اجرای آزمون ویلکاکسون با شاخص عمرانی و اقامتگاهی نیز مانند شاخص میراث طبیعی و تاریخی دارای استاندارد متوسطی است و بررسی زیرساختهای روستاها حاکی از تفاوت معنی‌داری بین روستاها نیست به منظور دستیابی به اهمیت یا وزن هر کدام از شاخص‌ها و زیر شاخص‌های ذکر شده از روش FAHP استفاده شده است، استفاده از روش AHP نشان داد که شاخص میراث ارزشمند طبیعی و تاریخی (با وزن ۰/۵۶۳۸) از اهمیت بیشتری نسبت به بقیه شاخص‌ها برخوردار است و پس از آن به‌ترتیب زیرساخت های عمرانی و اقامتگاهی (با وزن ۰/۲۶۳۴)، نگرش فرهنگی و اجتماعی(با وزن ۰/۱۱۷۸) و در نهایت شاخص پتانسیل‌های گردشگری و دامی (با وزن ۰/۰۵۵۰) هستند. اما نتایج نهایی بدست آمده به روش AHP فازی گویای آن است که با توجه به این وزن‌دهی روستای دشت بالاترین رتبه و بعد از آن به ترتیب روستاهای درکش، زمان صوفی ، اسپاخو، بدرانلو، آرمادلو، جوزک، شیرآباد، و در نهایت روستای کشانک پایین‌ترین رتبه در بین ۹ روستا را به خود اختصاص می‌دهند.

۵. بحث و نتیجه گیری

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

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

تشکر و قدردانی:

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

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Spatial Analysis of Tourism Impacts on the Economy of Rural Areas (Case Study: Rezvanshahr County, Iran)

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Abstract

Purpose- Tourism, as a booming and dominant activity of this century, has a lot of effects in rural areas, including economic effects, which according to different spatial situations can have different intensity and directions of changes and developments. In this regard, this study was codified with the aim of spatial analysis of tourism impacts on rural areas of Rezvanshahr.

Design/methodology/approach- According to the purpose, nature and method, this study is considered as a developmental and descriptive-analytical research, respectively. Documentary and survey methods have been used to obtain the required information and the TOPSIS model has been used to rank the economic and social needs of the villages studied. Using SPSS and GIS software, the collected data was processed and Pearson correlation test was used in inferential analysis of data.

Findings- The results showed that the economic level of villages varies based on four indicators (the income level, unemployment rate, level of facilities and misery rate), the lowest and the highest of which are related to Kish-e-Khaleh village with 0.001 and Punnel village with 0.9056, respectively. Furthermore, the results of Pearson correlation coefficient showed that there is a significant relationship between the independent variable of the number of tourists and dependent variable of the local economy level with a correlation coefficient of 0.626 at a confidence level of 0.99.

Research limitations / implications- The lack of documented information and the indeterminate number of tourists, especially in rural areas, are the most important challenges and problems of the study.

Practical implications- Therefore, according to the findings, It is possible to shape the economic development of villages by developing tourism attractions and actualizing the potential of tourist attraction in settlements.

Originality/value- Numerous studies have, so far, been carried out on tourism and rural economics. However, this study is valued based on the spatial analysis of the economy in the rural areas of the three types of coastal, plain and mountainous/ highland in the district of Rezvanshah and has not been addressed in previous studies.

Key words- economic development, tourism, rural economy, Rezvanshahr.
Paper type- Scientific & Research.

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1. Introduction

In today's world-wide marginal economy, tourism is one of the streams that clearly illustrate the combination of social and cultural affairs with economic activity, and dominates all pre-modern, modern and postmodern spaces using a global approach (Papoli Yazdi & Saghaei, 2014). In other words, tourism tends to use a space in leisure by various motivations and goals, which totally encompasses a flow of capital, human beings, culture, and their interaction having different impacts on the geographic contexts. These include the creation of incomes and employment for local residents in the supply of space for the use of tourists (Briedenhann & Wickens, 2004), which can create the highest added value in local communities. Many development thinkers have, therefore, mentioned Tourism as the world's first industry. The importance of tourism can be doubled by emphasizing the economic affair in the geographical space for the development and prosperity of local residents. It involves world-wide macroeconomic policies on tourism, which makes it a global matter (Sugiyarto, Blake & Sinclair, 2003).

Some countries, such as Spain, France and Italy, earn much of their currency income through tourism. Although tourism, alone, cannot lead to the development of the country, but gradually the need to change and create facilities for accommodation, relocation and other related activities will also result in development through the arrival of tourists. It would, in the long run, lead to an increase in infrastructure facilities and installation (Shokri & Abdiyan, 2018). According to the forecasts of the World Tourism Organization, particularly in 2020, the future of the world economy and international trade will be in the realm of the tourism industry with 1.360 billion incoming tourists and 1.809 billion people in 2030.While 717 million and 1037 trillion tourists will travel to developing countries in 2020 and 2030, respectively. In other words, tourism is an opportunity for countries which are often suffering from the social and economic phenomenon of unemployment and insufficient foreign exchange earnings. Currently, of the 983 million tourists, more than 450 million people are traveling to developing countries. The tourism industry can, thus, be the science of hunting opportunities and creating new ideas which are created as a result of global changes and transformations based on human beings, income and meeting human needs. It can provide a valuable economic prescription for the development of third world countries. (With a little précis from Rahimpour, 2012: 171)

Postmodern tourism, using the whole of this space, can play an important role in the distribution of income, in geographical spaces, and consequently in social justice (Papoli Yazdi and Saghaei, 2012). One of these spatial patterns includes rural tourism. The geographical scope of the villages in the territory and the possession of a large part of national resources can contribute to the formation of many economic opportunities in rural areas of the country. The ecotourism villages located on the edge of the populated centers are particularly very attractive (Sojasi Qaidari, Roknoddin Eftekhari & Mahdavi, 2015).

As the twentieth century is over, rural development is currently facing many problems and challenges since past rural development strategies have not been successful and have failed to address such issues as poverty, employment, health, food security and environmental sustainability. This has led theorists and planners to seek new strategies and approaches to solve the problem (Hajinejad, Paydar, Bagheri & Abdi, 2012). Rural tourism development is one of the strategies which has been considered in most countries of the world and has brought positive results (Roknoddin Eftekhari & Mahdavi, 2005). Therefore, in order to diversify the sources of economic growth, foreign exchange earnings and create new employment opportunities in the country, the development of the tourism industry is of utmost importance. Furthermore, from the tourism attractions point of view (viewpoint), Iran is among the top ten countries in the world and has many potential for international tourism and travelling. Therefore, the grounds of distribution of tourism interests should be provided as a strategy for economic growth and development (Karimipour, 2012).

Furthermore, rural areas, due to attractive potentials (natural, cultural and environmental), should be able to explain and evaluate the impact and impressions of tourism in rural areas, and in the process of evaluating and reviewing the quality of rural tourism, it may provide the opportunity to benefit rural households from the tourism interests, such as: increasing income and creating employment as well

as preserving the rural environment (Nabizadeh, 2015).

Participating in decision-making for planning among multiple stakeholder groups is essentially a major concept in tourism planning approaches. Moreover, Participation in decision-making in planning is considered as a method for achieving sustainable tourism development and balancing the distribution of tourism-related interests among multiple interest groups (Hadipour, Lasemipour & Esmaeili, 1995). Therefore, considering the principles and essentials of sustainable tourism in rural areas, one can balance the host society, the community of tourists, tour holders and the natural environment of the village to stabilize and exploit all equilibrium components (Mehrbani, 2016). In this regard, rural tourism is also part of the tourism industry, which can play a major role in empowering local people and diversifying their part in economic growth as well as creating new job opportunities in close contact with other sectors of the economy (Sharifzadeh & Moradinezhad, 2002). In recent decades, many economic activities have sharply fallen in rural areas and the level of income and employment in traditional agricultural activities, in particular per capita income, has fallen below the average per capita income of the country, and on the other hand, an increase of unemployment rate and youth migration has endangered the sustainability and livelihood of villages, so tourism is not only a potential tool for changing this situation but also used as an integral part of rural development and strategy (Sharpley, 2002).

The high volume of tourists in different regions of Gilan (province) has brought many economic impacts to the local and rural communities. Therefore, to provide an appropriate answer to this question: "what is the spatial pattern of the tourism development economics in the most important ecotourism axis of the country (Gilan), and How does it affect the economic stability of local communities (rural areas), the distribution of tourism interests in rural areas of Rezvanshahr and its local development's impacts (job creation, proportional income distribution and balanced regional development), which could play a central role in the development of local and national tourism in Gilan, was investigated in Rezvanshahr. Rezvanshahr, which was known among tourists as the head of Gilan cities, is one of the 16 counties located in Gilan province. It has mountainous/ sub montane climate and four charming seasons, that is why it was known as one of the most important tourism destinations in Gilan (province) throughout the year, especially during the holidays.

Rezvanshahr is very rich in natural beauty, and many travelers travel to this city in different seasons of the year, especially on Nowruz holidays. The beautiful beaches of the city, coastal strip with a width of 30 km, the vast forest reserves, the proximity of the Caspian coast to the mountainous/ sub montane regions, the pine needle forest between Ardojan to Parehsar, the summer quarters of Ardah, Berezkouh, , Shaleh Rah Roshandeh, the mosque of Espieh Mazget alongside the Dinachal river, brick bridge of Pounel, the tomb of Seyyed Sharf al-Din, the monument of the Bursakouh, the tomb of Agha Seyyed Salih, the tomb of Sheikh Abul'ma'ali Parehsar has totally created a number of attractions for tourism in the city. It has many potential talents due to its significant natural attractions (forests, Mountains, beaches, waterfalls, and rivers), historical and religious memories, local and traditional weekly markets, and people's customs and cultures. It has a privileged quadruple and inter-road location which passes through the passage of passengers and tourists to Astara, Talesh, Ardabil Province and the Caucasian countries and vice versa.

Therefore, reviewing Rezvanshahr as one of the most important tourism destinations in Gilan can provide the best opportunity for planners to develop tourism and its infrastructure. It can provide a good pattern for boosting and improving the economy particularly in local and rural communities. Based on the above principles, the fundamental question of the research is: "What are the impacts of tourism on the local economy of rural settlements in Rezvanshahr?"

2. Research Theoretical Literature

Today, in the development literature, it is fully accepted that the region and regional development play a fundamental role in the foundations of economics and social life, because the regional economy with a sustained paradigm in the past few decades has been a great deal of effort to reveal the complexity of space Which has resulted in the integration of scientific perspectives on congestion theory, spatial theory, exchange theory, welfare theory, theory of growth, and entrepreneurship theory. Combining economic analysis with geographic thought has led to the elimination of the traditional gaps in geosciences and economics. As a

result, this synergy led to the formation of a new scientific path in regional development, which included theoretical and experimental nature simultaneously. Such a synergy is the creation of dynamism in the economy of space and the displacement of wealth, labor and services. In other words, in geographic areas, regions face two necessities in relation to economic development (Moradi, 2016).

However, classical regional theories have not been able to create regional equilibrium in spatial courts in terms of economic development, but in today's world, the use of entrepreneurship and tourism activities through new products, improving production processes, and employing new management practices are among the key factors which are the means of achieving equal opportunities in economic development. In fact, tourism enhances innovative activities and puts the region at the forefront of economic development. In the process of globalization of the economy, which is rapidly developing and affecting the economies of all countries in the world, rural tourism is one of the most important areas for economic growth and development of countries in order to get rid of a single-industry economy and to achieve sustainable development. Since, it may produce productive and diverse employment in rural areas besides increasing foreign exchange earnings. It can prevent the rural population from migrating by providing job opportunities; it also preserves the productive capacity of the villages and expands agriculture in all its branches.

It has been proven that rural tourism promotes the culture of societies, thereby preserving and reviving it (Malekli & Pirhadi, 2018). Rural tourism, as one of the rural development strategies (Roger, Pendleton, Goudy & Richards, 2018; Akbarian Ronizi & Badri, 2015), officially entered the rural development literature from the middle of the twentieth century (Khani, Khosravi Mehr & Tourani, 2014).

Entrepreneurship development in small-scale tourism through strengthening local culture and diversity in rural tourism activities, preserving villagers in the region, and adapting the city-rural linkages as well as reducing environmental pressures due to the small size of rural tourism enterprises in sustainable regional development. Rural tourism occurs in rural areas and creates additional income for villagers. Ruralization is a valuable resource for job creation and income generation and can be an important tool for the social and economic development of rural communities and support for the environment and rural culture (Foucat, 2002).

On a small scale, Entrepreneurship development in tourism has played an important role in creating sustainable regional development by strengthening local culture and diversity in rural tourism activities, preserving regional villagers, and improving the linkages between the city and village as well as reducing environmental pressures due to the small size of rural tourism enterprises in sustainable regional development. Rural tourism occurs in rural areas and creates additional income for villagers. Rural tourism is a valuable resource for job creation and income generation and can be an important tool for the social and economic development of rural communities and a great supporter of the environment for the environment and rural culture (Foucat, 2002).

Moreover, it is important to consider the status of the tourism industry in rural development as it can be utilizing the growth of the economy, developing the agricultural sector and producing local handicrafts using the natural and human resources appropriately and thereby making an effective contribution in improving environmental conditions and preserving indigenous cultural heritage and local customs in the villages (Crouch, 2015). Local tourism development is a prerequisite for sustainability, which helps to avoid conflicting situations that may arise in the absence of a proportion of the development of tourism using the interests of communities (Sojasi Qeidari, et al., 2016). The main themes of economic sustainability in rural tourism are economic interests, the diversification of the local economy, controlled economic growth, the improvement of local and regional relations and the fair distribution of economic interests in the local economy (McIntyre, 2014). The economic dimension of sustainable tourism; furthermore, implies adequate income, the stability of prices for goods and services, and the equalization of job opportunities in the community (McCool, 1995).

Another important point is that the tourism economy is founded as a dynamic and multifaceted activity based on the natural, physical, social and cultural capacities of the land (Azami, Jalilian & Hashemi Amin, 2015). It is clear that rural tourism has increasingly enlarged the potential of economic and bio-potential of rural areas. It also serves as a stimulant to the livelihoods of the settlements as

well as improving the living conditions of rural communities (Briedenhann & Wickens, 2004). Economic dimensions of rural tourism should be such as to provide the welfare and development of villages, while maintaining the effective functioning of the village, is an ideal option for rural development. In fact, tourism, both internationally and at lower levels, provides the possibility of economic development in different regions, and for this reason, most countries in the world have focused on the importance of tourism in the global economy for its role in income and employment (Rezvani, 2008).

Researches and resources, which can be considered as the background of this study as a right implement, are as follows:

In a study titled "An evaluation of rural tourism economy in Iran" in Abyaneh village, Oruoji, Alizadeh, Abyaneh & Safavi (2018) stated that tourism has had relative economic impacts on the village. According to the results of Abyaneh village, the economic impacts of tourism have been evaluated in terms of normal and relative desirability. Tourism has played an important role in migrating and reducing this trend from village to city. It has had favorable effects on the field of investment and employment of service sector but it seems that the mental image of the village is not desirable and people do not have much satisfaction with tourism. Thus, it is a very significant negative factor in the relative value of the economic impacts of tourism in the village of Abyaneh. Mousavi, Sadat Asl & Sadat Asl (2018) investigated the distribution of rural tourism income among key sectors of the economy. The findings show that the development of rural tourism sub-sectors has a positive effect on the distribution of rural household income. In a study entitled "Economic Consequences of Tourism Development" in Bandar Anzali in Licharaki Hassan Rood Village, Motiee Langroudi & Kateb Asgomi (2017) stated that Tourism in Licharki Hassan Rood Village has led to economic prosperity, so that tourism development has changed the structure of the agricultural sector (23.5%) to the services and tourism sector (63.4%). Furthermore, an increase of employment in the services sector and incomes of rural residents, and poverty reduction have been other economic consequences of tourism development in the village of Licharaki Hasan Rood. In his study, Mottaghi (2017) studied the economic transformation of the target tourism villages of Chaharmahal and Bakhtiari province. It was concluded that economic status of the tourist, technical and technological factors, economic factors and cultural factors of the villages are the most important factors affecting rural tourism, respectively. According to experts, these factors were the most appropriate criteria for the rural tourism sector.

Mahmoodzadeh & Arjomandian (2017) conducted a research entitled "Identification and ranking of entrepreneurial opportunities in rural tourism (Case study: Ab Asak village)". The results identified 59 opportunities for entrepreneurship in the tourism industry of the Ab Asak village. These opportunities were organized and ranked in 11 groups so that the highest and the lowest of them were related to the health and sanitary group opportunities and leisure and adventure opportunities, respectively. In the end, various strategies and suggestions have been presented to develop entrepreneurship opportunities in the field of rural tourism. In an article entitled "The Study of the Role of Tourism on Changing the Pattern of Housing in Rural Areas" (Case Study: Rezvanshahr City), Yagoubi, Goreishi Minaabadi & Movlaei Hashjin (2016) concluded that the traditional and native architecture is losing its place and replaced by modern urban architecture. The results show that in the construction of new housing, the fortifications components with a score of 73.5 are positive and satisfactory to the people, but from a functional and economic point of view, it is contrary to rural living conditions with the score of 9.4. In another study titled "Economic Tourism Development Communication", Sokhanvar Giftciglu & Javid (2018) concluded that there is evidence of unilateral causality from tourism to economic growth in Brazil, Mexico, and the Philippines, while such a relationship has been reversed for China, India, Indonesia, Malaysia and Peru. But there is a bilateral causality in Chili. It confirms the results of the causality test by identifying the relationship between economic growth and tourism income. In an article titled "An Tourism Exploration of Cultural Heritage in Rural Newfoundland," Mitchell & Shannon (2018) showed that newcomers and retired immigrants have particularly affected the course of the development using evolutionary economic geographic lens. Their initiatives have restricted full-time job opportunities, but provide enough time to qualify workers to help the government. The findings show that entrepreneurial measures, in spite of supportive organizational policies and

innovative consumers, affect the development of local heritage and livelihood tourism in the transmission of resource-dependent areas. In the study titled "The Impact of Economic Factors on the Development of Rural Tourism"(the case study: Lithuania), Snieška, Barkauskienė & Barkauskas (2014) concluded that the number of tourists (of the studied villages) was strongly influenced by economic factors (gross interior product, average gross monthly income, direct investment and government expenses. The development of the villages is also influenced by such factors as the average monthly gross income, direct foreign investment, and government expenditures. Iorio & Corsale (2010) examined the rural tourism and livelihood solutions. The results showed that rural tourism has increased livelihood levels of rural families, and tourism has adapted to other livelihood methods in the villages of this country.

Thus, studying the studies and backgrounds which were in line with this study, have indicated that in past researches (both domestic and foreign), the main effects of tourism as an economic factor in rural settlements are based only on changes In other words, in all studies, the analysis and analysis of the effects of tourism on different dimensions of sustainability in human settlements has been studied. In this study, we try to analyze the effects of tourism on Local economics as well as the spatial distribution of economical rural tourism in three types of coastal, plain and mountainous/ sub montane areas.

3. Research Methodology

3.1 Geographical Scope of the Research

Rezvanshahr, with a total area of 770 square kilometers, is located in the northwest of Gilan province and the southwestern coast of the Caspian Sea. It is limited to the north by the Caspian Sea and Talesh, from the east to the Caspian Sea, Bandar Anzali and Sumeh Sara, and from the south and south-east to the Masal and from the west to the Khalkhal of Ardabil. Hence, it has an outstanding geographic and strategic location. With moderate and humid climates, it consists of three parts: coastal, plain, and mountainous, located between 27 and 2800 meters above sea level. According to the latest census (2016), it has 2 districts (central and Pareh Sar), 2 cities (Rezvanshahr and Pareh Sar), 4 rural districts (Gil Dulab, Khoshabar, Dinachal and Yaylaqi Ardeh) and 107 inhabited villages and 69865 inhabitants**.** Of these, 42,330 people are living in rural areas (Figure 1).

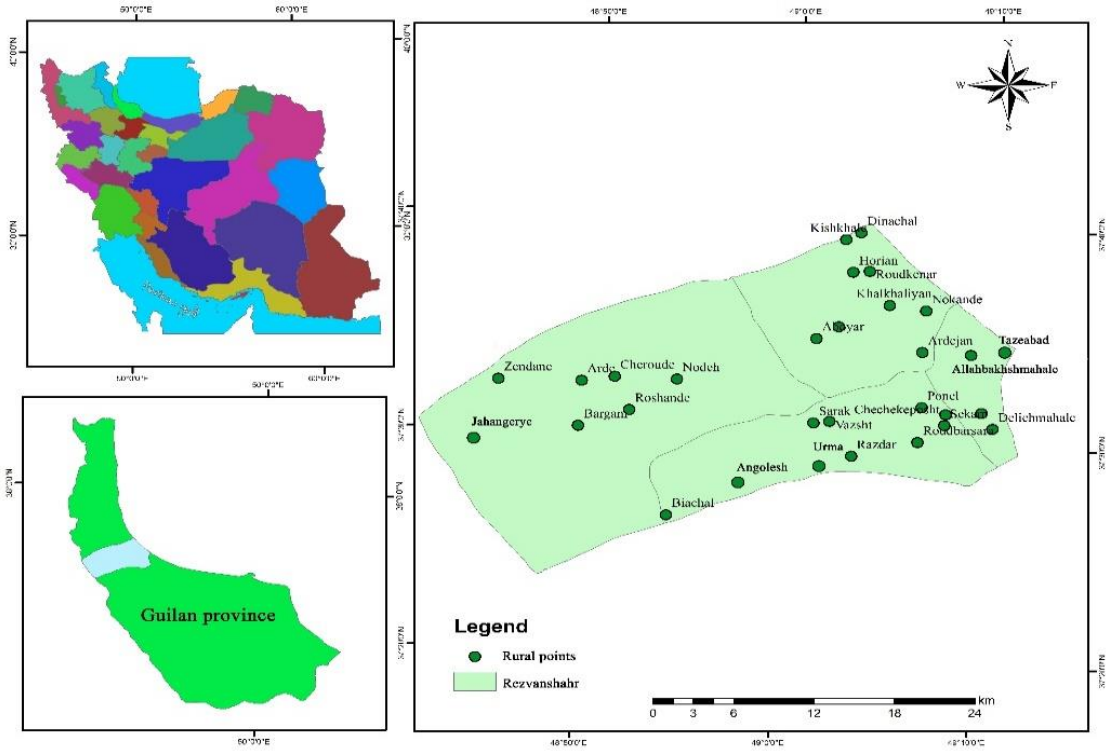

Figure 1- Map of the geographic location of the study area in the country and the province of Guilan
(References: Drawing writers, 2018)

3.2. Methodology

According to the purpose, nature and method, this study is considered as a developmental and descriptive-analytical research, respectively. Documentary and survey methods have been used to obtain the required information. In field surveys, two sources of Cultural Heritage and Tourism Organization and rural municipality have been used to estimate the number of tourists visiting the villages in three different types of coastal, plain and mountainous/ submontane regions of Rezvanshahr,. In some villages, the tenants were decided to set up the counter of entrance fee for the tourists to arrive in the village; therefore, the tourists' statistics were can be determined. The amount of income, unemployment rate, misery, number of tourists, and the amount of misery have been used to measure the local economy. The local econometrics and family questionnaires were used to measure and determine the income index and the relationship between the tourist habitat and the local economy level, respectively. Furthermore, in 2011, the villages' identity and central bank were used to measure unemployment, misery and official data's attainment. The data was sampled using the multistage cluster sampling method so that three types of villages (plain, coastal and mountainous) were identified. Then, of the total number of villages, 25% was selected in each type of rural area based on the level of adequacy confirmed by previous studies in the rural. By quota method, the number of sample villages was determined to the district and rural district. In the next step, using the Cochran formula, the total sample size of Rezvanshar households was estimated at 380 with an error of 0.05. The number of sample households was determined at the level of each district, rural district, and villages using a quota method (Table 1). Topsis model has been used for ranking the level of utilization and economic level of the villages since the indices have positive and negative ideals. In a way that 7 indicators (access to educational facilities, access to cultural, sporting and religious facilities, access to political and administrative facilities, access to water, electricity and gas, access to healthcare facilities, access to commercial and services facilities, access to communication and transportation facilities) were used to determine the availability of the Rezvanshar's villages. The SPSS and GIS were used to extract the data from questionnaires. Due to the existence of distance data, the Pearson correlation test was finally used for inferential data analysis.

Table 1. Number of sample villages in each of the rural brigades of Rezvanshahr
(Source: Management and Planning Organization of Guilan Province, 2015)

Typology of villages	district	Rural district	Number of villages	Number of households	Sample villages	Sample households
plain	central	Khoshayer	15	2581	4	67
		Gildoulab	15	2012	4	52
	Parehsar	Dinachal	13	3233	3	84
coastal	central	Gildoulab	4	435	1	11
	Parehsar	Dinachal	2	441	1	11
mountainous	central	Khoshayer	28	3118	7	81
		Gildoulab	1	62	1	2
	Parehsar	Yeylaghizadeh	22	1128	6	29
		Dinachal	6	1643	2	43
total			106	14653	30	380

4. Research Findings

4. 1. Economics of tourist villages

The rate of tourism- By examining the number of tourists (annual) in villages of Rezvanshahr according to the average of the last five years, there will be a large number of tourists a year in the mountainous/ submontane type of villages such as Jahan Gheryeh, Zandaneh, Ardeh and ... due to the virginal landscape of the forests and lush meadows, as well as the presence of tourists in the warm season of the summer and the moderating role of the highlands. After that, coastal villages are in the second place of tourist attraction due to the presence of the sea and its related sports. The plain villages are at the third place of tourism attraction due to the lack of two potentials: the sea and the forest as well as the presence of moisture on the one hand and the lack of communication and alignment between local products and tourism (Table 2).

Table 2. The annual number of tourists in sample villages of Rezvanshahr
(Source: Research findings, 2018)

topology	Name of the village	The mean (n)	topology	Name of the village	The mean(n)
Plain/ pampas	Horiyan	600	mountainous	Sarak	700
	Sekam	350		Ourma	500
	Chakchakeh posht	400		Biachal	400
	Kishkaleh	700		Aboyar	300
	Gilchalan	500		Razdar	400
	Dilaj Mahaleh	400		Vazesht	300
	Roodkenar	500		Roshandeh	900
	Allahbakhsh Mahaleh	600		Ardeh	1200
	Ordojan	600		Zandaneh	1500
	Seyghalsara	700		Chorodeh	1000
	Khalkhalian	600		Noudeh	700
coastal	Tazeh Abad	3000		Pargam	1000
	Nokatedeh	1500		Jahan Geryeh	1200
	Punel	900		Dinachal	300
	Angoolesh	500		Roodbarsara	700
Total			22250		

Household income- With the creation and growth of tourism businesses in any geographic space, operating income or economic activity is the first and foremost subject of change or better to say, the whole efforts has been followed by a positive transformation. It can affect the inhabitants who are not even directly involved in space tourism. Hence, this study examines the income status of households living in tourism villages of RezvanShahr. According to the statistics, the average income of rural households of Roodbarsara village is about 19 million Rials, which has the highest monthly income. In the case of villages like Razdar and Biachal, this figure is reached to 9/9 million Rials. In other words, the relatively significant income gap can be seen at the level of the villages. The proper use and management of the villages' capacities and the tourists' attendance are the main reasons for this difference in income at the level of villages. Villages including Roodbarsara, Zandaneh, Ardeh and etc., could certainly have a higher average income than the other villages, which have been able to create various fields for profit-making through tourism By studying the average income of rural households in these three types, it has been determined that rural settlements of the submontaneh / mountainous type are having a higher income than the other two types suggesting that tourism will boost local production in these areas that, in turn, plays an important role in increasing household incomes (Table 3).

Table 3. Average gross household income of the villages (million Rials)
(Source: Research findings, 2018)

Topology	**Name of the village**	**mean**	**minimum**	**maximum**	**Topology**	**Name of the village**	**mean**	**minimum**	**maximum**
Plain	Horiyan	12	5.5	18	Mountainous	Sarak	16	7.5	20
	Sekam	11	4.9	16		Oruma	14	6.5	17
	Chekchekeh Posht	9.5	4	13		Biachal	9	4	12
	Kishkaleh	10	4.5	15		Aboyar	9.5	4	13
	Gilchalan	12.5	6	19		Razdar	9	4.5	12
	Dilaj Mahaleh	11	4.8	15		Vazasht	8.5	4.8	10
	Roodkenar	13	5.8	17		Roshandeh	13	5.8	17
	Allahbakhsh Mahaleh	9.5	4	12		Ardeh	15	6.5	20
	Ordajan	12.5	6	14		Zandaneh	17	7.5	22
	Seyghal sara	11.5	4.9	13		Cherodeh	16	7	20

Table 3.

topology	Name of the village	mean	minimum	maximum	topology	Name of the village	mean	minimum	maximum
	Khalkhaliyan	11	4.5	12.5	Mountainous	Noudeh	11	5	14
Coastal	Tazeh Abad	13.5	6.5	15		Pargam	14.5	6.8	18
	Noukandeh	12	5.5	14		Jahan Geryeh	9	4.5	12
	Punel	15	7	19		Dinachal	18	9	24
	Angoolesh	13	6	16		Roodbarsara	19	10	26

Unemployment rate- By examining the unemployment rate of the tourism villages of the Rezvanshahr, It was found that the total rate of unemployment of the villages was 7.8%, and the highest and the lowest unemployment rate were related to the Sarak and Angoolesh, and Sekam and Zandaneh , respectively. All rural settlements have both intrinsic and acquired attractions. The economies of these areas can be remained more stable and harmless by actualizing the acquired attractions. Considering the lack of attention to the potential attractions, villages including Sarak and Anghoolesh, which has a high unemployment rate, have created peripheral activities by accomplishing their main activities but in Zandaneh, tourism, as a main stimulant, plays a role to create employment, strengthen the usual activity of the village (livestock). By studying the unemployment rate in three types (plain, coastal and mountainous / mountainous) it was found that the lowest and the highest unemployment rate were related to mountainous and plain villages, respectively(Table 4).

Table 4- Unemployment rate of the villages
(Source: Research calculations, 2018)

Topology	Name of the village	Unemployment rate	topology	Name of the village	Unemployment rate
Plain	Horiyan	10.5	Mountainous	Sarak	15.8
	Sekam	9.7		Oruma	6.6
	Chekchekeh Posht	8.9		Biachal	6.2
	Kishkaleh	11.2		Aboyar	5
	Gilchalan	6.03		Razdar	8.3
	Dilaj Mahaleh	2.5		Vazasht	3.6
	Roodkenar	6.5		Roshandeh	7.3
	Allahbakhsh Mahaleh	10		Ardeh	5.2
	Ordajan	6.5		Zandaneh	0
	Seyghal sara	7.2		Cherodeh	8.6
	Khalkhaliyan	3.6		Noudeh	2.5
Coastal	Tazeh Abad	7.4		Pargam	7.3
	Noukandeh	6.8		Jahan Geryeh	2.8
	Punel	6.5		Dinachal	12
	Angoolesh	13.8		Roodbarsara	8.03
The total rate of employment			7.8		

Level of facilities- Having numerous natural and human attractions alone cannot contribute to the development of a tourism system, particularly in rural areas. Therefore, the availability of services and facilities is an important prerequisite for tourism planning and development. The weight and importance of each of the indices were firstly calculated using Shannon entropy method. After determining the weight and importance of each of the selected indices, the Topsis method has been applied to the final ranking of each village (Table 5).

Table 5. The weight of the indexes used in the TOPSIS model
(Source: Research calculations, 2018)

Index	weight
Access to communication and transportation facilities	0.1666
Access to services and commercial services	0.1552
Access to healthcare facilities	0.1608
Access to water, electricity and gas	0.0091
Administrative and political facilities	0.0951
Cultural, sporting and religious facilities	0.112
Educational facilities	0.3013

According to the findings, inequality and heterogeneity are evident in the distribution of indicators. The results showed that the weights of indicators are fluctuating among villages, so that the lowest and the highest weights were related to the Zandaneh and Punel villages with the figures of 0.0952 and 0/8314, respectively (Table 6). From the attainment point of view, Mountainous and far away villages are at the lower ratings trough the distance from communication routes and the lack of direct access to the paved roads due to the remoteness of the cities. Considering the geographical location, plain villages have better conditions in close proximity to the city, access to paved roads and direct access to other villages, particularly remote mountainous villages. This can be explained more by the theory of the Friedman Center.

Table 6. the level of attainment of the villages
(Source: Research findings, 2018)

topology	Name of the village	Weight	Rating	topology	Name of the village	weight	Rating
Plain	Horiyan	0.2917	18	Mountainous	Sarak	0.3692	12
	Sekam	0.3169	16		Oruma	0.5249	2
	Chekchekeh Posht	0.3486	13		Biachal	0.2485	20
	Kishkaleh	0.0961	29		Aboyar	0.1284	26
	Gilchalan	0.4892	8		Razdar	0.1091	28
	Dilaj Mahaleh	0.3136	17		Vazasht	0.7362	3
	Roodkenar	0.3879	10		Roshandeh	0.1564	24
	Allahbakhsh Mahaleh	0.3271	15		Ardeh	0.2917	19
	Ordajan	0.7143	4		Zandaneh	0.0952	30
	Seyghal sara	0.3395	14		Cherodeh	0.1381	25
	Khalkhaliyan	0.2057	23		Noudeh	0.1191	27
Coastal	Tazeh Abad	0.3847	11		Pargam	0.2164	22
	Noukandeh	0.5212	6		Jahan Geryeh	0.2182	21
	Punel	0.8314	1		Dinachal	0.6296	5
	Angoolesh	0.5002	7		Roodbarsara	0.3890	9

Misery Index- Misery is one of the consequential indicators of the economy of each settlement and geographic unit. It reflects the cumulative unemployment status and inflation rates. They both share the welfare state and purchasing power of the local community. The results showed that the highest level of misery was related to the Sarak and Angoolesh villages due to an increase in the unemployment rate and the overhead rate of the villages' population. In other words, the highest economic failure can be seen in these villages. Furthermore, the lowest level of misery was related to the two villages of Chrodeh and Nodeh, which represents a low unemployment rate of the two villages. The comparison of the three brigades studied in Rezvanshahr showed that the lowest rate of misery belonged to the mountainous type (Table 7).

Table 7- the rate of misery of the studied villages
(Source: Research findings, 2018)

Topology	Name of the village	Unemployment rate	Inflation rate	Index of misery	Topology	Name of the village	Unemployment rate	Inflation rate	Index of misery
Plain	Horiyan	10.5	18.4	28.9	Mountainous	Sarak	15.8	18.4	34.2
	Sekam	9.7	18.4	28.1		Oruma	6.6	18.4	25
	Chekchekeh Posht	8.9	18.4	27.3		Biachal	6.2	18.4	24.6
	Kishkaleh	11.2	18.4	29.6		Aboyar	5	18.4	23.4
	Gilchalan	6.03	18.4	24.4		Razdar	8.3	18.4	26.7
	Dilaj Mahaleh	2.5	18.4	20.9		Vazasht	3.6	18.4	22
	Roodkenar	6.5	18.4	24.9		Roshandeh	7.3	18.4	25.7
	Allahbakhsh Mahaleh	10	18.4	28.4		Ardeh	5.2	18.4	23.6
	Ordajan	6.5	18.4	24.9		Zandaneh	0	18.4	18.4
	Seyghal sara	7.2	18.4	25.6		Cherodeh	8.6	18.4	27
	Khalkhaliyan	3.6	18.4	22		Noudeh	2.5	18.4	20.9
Coastal	Tazeh Abad	7.4	18.4	25.8		Pargam	7.3	18.4	25.7
	Noukandeh	6.8	18.4	25.2		Jahan Geryeh	2.8	18.4	21.2
	Punel	6.5	18.4	24.9		Dinachal	12	18.4	30.4
	Angoolesh	13.8	18.4	32.2		Roodbarsara	8.03	18.4	26.4
Total							8.7	18.4	26.4

2.4. Levels of rural settlements in terms of local economy

According to the local economy, four indicators (the income rate, unemployment rate, level of facilities and misery rate) have been used to level the sample villages. The weight and the importance of each indicator were calculated using the Shannon entropy method. After determining the weight and the importance of each of the selected indicators, the Topsis method has been used to make the final ranking of each village (Table 8).

Table 8. the weight of the indexes used in the TOPSIS model
(Source: Research calculations, 2018)

Index	weight
Misery	0.1666
Attainment	0.1552
Unemployment rate	0.1608
Income	0.0091

Given the results, the heterogeneity is evident in the distribution of indicators. The results show that the weights of the studied indices are fluctuating among the villages, so that the lowest and the highest weights are related to the Kish Khaleh and Punel villages by the figures of 0.0017 and 0.9056, respectively (Table 9). By ranking the economic status of the villages, it can be found that villages with a high number of tourists are ranked higher. Considering the leveling of the three types of the villages, the mountainous bridge was at the first rate, and the coastal and plain bridges were at the second and the third rate, respectively.

Table 9. the leveling of the studied villages based on the local economies
(Source: research findings, 2018)

topology	Name of the village	coefficient	Rating	topology	Name of the village	coefficient	Rating
Plain	Horiyan	0.2848	26	mountainous	Sarak	0.315	24
	Sekam	0.3295	23		Oruma	0.9011	2
	Chekchekeh Posht	0.3854	18		Biachal	0.3368	21
	Kishkaleh	0.0017	30		Aboyar	0.2971	25
	Gilchalan	0.6287	6		Razdar	0.2193	29
	Dilaj Mahaleh	0.4720	12		Vazasht	0.8745	4
	Roodkenar	0.4837	10		Roshandeh	0.2598	27
	Allahbakhsh Mahaleh	0.3393	19		Ardeh	0.3896	17
	Ordajan	0.8320	3		Zandaneh	0.5615	7
	Seyghal sara	0.4052	16		Cherodeh	0.2243	28
	Khalkhaliyan	0.3392	20		Noudeh	0.5080	9
coastal	Tazeh Abad	0.4581	13		Pargam	0.3364	22
	Noukandeh	0.6988	5		Jahan Geryeh	0.5519	۸
	Punel	0.9065	1		Dinachal	0.439	14
	Angoolesh	0.4766	11		Roodbarsara	0.420	15

In general, the findings show that, in recent years, tourism has been employed as an appropriate factor for strengthening the economy of rural areas of the Rezvanshahr, particularly the mountainous and remote rural areas, who have a livestock economics, and tourism, as a complementary chain, has strengthened and improved the economy of the areas.

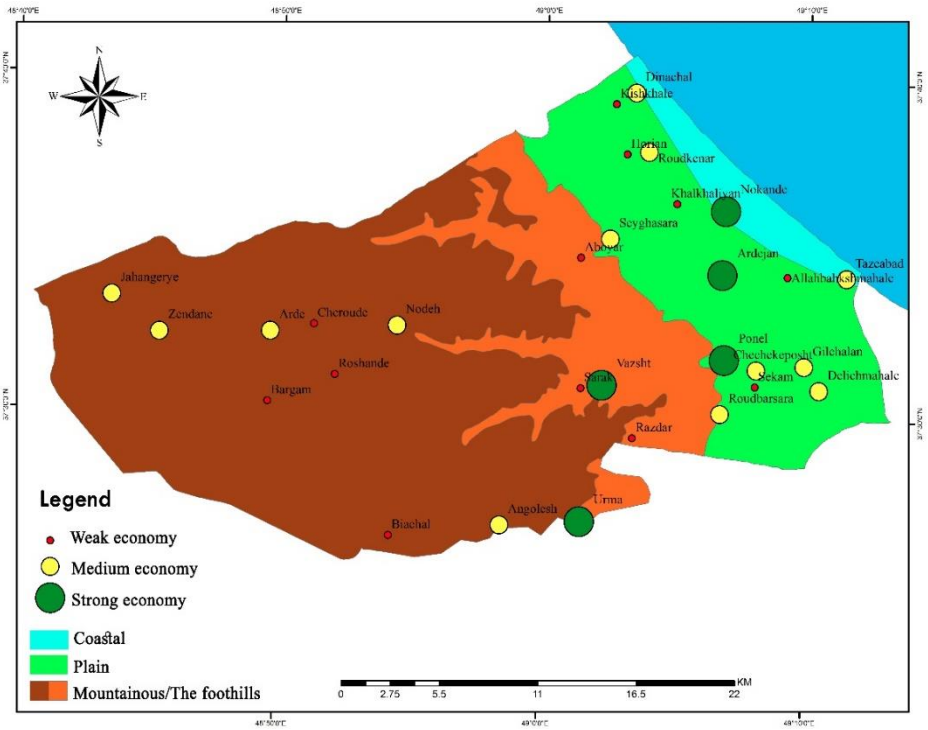

Figure 2. Leveling the development of local economy of the Rezvanshahr villages
(Source: Drawing writers, 2018)

As the results show, according to the economic level, the rural settlements of Rezvanshahr are classified in three levels (strong, medium and weak) so that the villages (Nukandeh, Ardajan, Punel,

Vazasht and Oruma) by the weights of 0/6268 to 0/9056 are at a high economic level. Of the five villages locating at a high economic level, three villages (Punel, Vazasht, and Oruma) are related to the mountainous type. Moderate economic level's villages (Ardeh, Zandaneh, Jahan Geryeh, Nodeh, Angolesh, Roodbarsrara, Seyghalsara, Dilch Mahaleh, Gil Chalan) are between the weights of 0.3394 to 0.6287, respectively. Low economic level's villages (Khalkhalian, Roshandeh, Aboyar, Pargam, Ghroveh, Biachal, Allah Bakhsh mahaleh) are between the weights of 0/0017 to 0/3393 (Figure 2).

2.4. Tourism relationship with the local economy

According to the results of Pearson correlation coefficient test in Table 10, there is a significant relationship between the independent variable of the number of tourists and the dependent variable of the level of local economy by a correlation coefficient of 0.626 at a confidence level of 0.99, that is, the economics of the settlement will have better economic conditions by increasing the number of tourists. The results showed that villages accommodating more tourists are in a better position than other villages in terms of economic indicators.

Table 10. Pearson R Test to determine the correlation between the number of tourists and the local economy level
(Source: Research findings, 2018)

Variable		Local economy level
Number of tourists	Pearson coefficient	0.626**
	Significant level	0.000
	Statistical society	30

According to the results of the Pearson correlation coefficient test in Table 11, there is a significant relationship between the independent variable of the number of tourists and the dependent variables (unemployment, misery, income, and level of attainment) at the confidence level of 0.99, that is, the unemployment rate and the amount of misery are decreasing by increasing the number of tourists. Therefore, the income and the settlement levels are also increasing due to an increase in the number of tourists.

Table 11. Pearson r Test to determine the correlation between the number of tourists and the variables
(Source: Research findings, 2018)

variable		unemployment	misery	income	Level of attainment
Number of tourists	Pearson coefficient	-0.656	-0.612	0.766	0.599
	Significant level	0.000	0.000	0.000	0.000
	Statistical society	30	30	30	30

5. Discussion and conclusion

This study examined the spatial analysis of the economics of the tourism villages in Rezvanshahr. Tourism, as a booming and dominant activity of this century, has a lot of effects in rural areas, including economic effects, which according to different spatial situations can have different intensity and directions of changes and developments. In this regard, this study was codified with the aim of spatial analysis of tourism impacts on rural areas of Rezvanshahr.

By examining the number of tourists (annual) in villages of Rezvanshahr according to the average of the last five years, there will be a large number of tourists a year in the mountainous/ submontane type of villages such as Jahan Gheryeh, Zandaneh, Ardeh and ... due to the virginal landscape of the forests and lush meadows, as well as the presence of tourists in the warm season of the summer and the moderating role of the highlands. According to the statistics, the average income of rural households of Roodbarsara village is about 19 million Rials, which has the highest monthly income. In the case of

villages like Razdar and Biachal, this figure is reached to 9/9 million Rials. In other words, the relatively significant income gap can be seen at the level of the villages. The proper use and management of the villages' capacities and the tourists' attendance are the main reasons for this difference in income at the level of villages. Villages including Roodbarsara, Zandaneh, Ardeh and etc., could certainly have a higher average income than the other villages, which have been able to create various fields for profit-making through tourism By studying the average income of rural households in these three types, it has been determined that rural settlements of the submontaneh mountainous type are having a higher income than the other two types suggesting that tourism will boost local production in these areas that, in turn, plays an important role in increasing household incomes.

By examining the unemployment rate of the tourism villages of the Rezvanshahr, It was found that the total rate of unemployment of the villages was 7.8%, and the highest and the lowest unemployment rate were related to the Sarak and Angoolesh, and Sekam and Zandaneh , respectively. By studying the unemployment rate in three types (plain, coastal and mountainous / mountainous) it was found that the lowest and the highest unemployment rate were related to mountainous and plain villages, respectively. The results showed that the highest level of misery was related to the Sarak and Angoolesh villages due to an increase in the unemployment rate and the overhead rate of the villages' population.

According to the leveling of local economy of the villages, the weights of the studied indices are fluctuating among the villages, so that the lowest and the highest weights are related to the Kish Khaleh and Punel villages by the figures of 0.0017 and 0.9056, respectively (Table 9). By ranking the economic status of the villages, it can be found that villages with a high number of tourists are ranked higher. Considering the leveling of the three types of the villages, the mountainous bridge was at the first rate, and the coastal and plain bridges were at the second and the third rate, respectively. According to the economic level, the rural settlements of Rezvanshahr are classified in three levels (strong, medium and weak) so that the villages (Nukandeh, Ardajan, Punel, Vazasht and Oruma) by the weights of 0/6268 to 0/9056 are at a high economic level. Of the five villages locating at a high economic level, three villages (Punel, Vazasht, and Oruma) are related to the mountainous type. there is a significant relationship between the independent variable of the number of tourists and the dependent variable of the level of local economy by a correlation coefficient of 0.626 at a confidence level of 0.99, that is, the economics of the settlement will have better economic conditions by increasing the number of tourists.

The results of the study were compared to Oruoji et al. (2018), Mousavi et al. (2018), Motiee & Kateb Asgomi (2017), Mottaghi (2017), Sokhanvar et al (2018), Mitchell & Shannon (2018) and Iorio & Corsale (2010) studies, which indicated that all previous studies of tourism as a factor in strengthening the economy in settlements, therefore, are consistent with the results of the present study.

Considering the above items, tourism may play a decisive role in the development of the rural areas of Rezvanshahr and the promotion of local residents' economies as a suitable working tool and complementary to other economic sectors by properly distributing the interests so that all rural settlements of different types would enjoy equitable and equal interests from tourism. Therefore, tourism, by influencing on some of the indices, has developed the rural settlements in economic terms, which is different depending on the type of rural settlements.

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تحلیل فضایی اثرات گردشگری بر اقتصاد نواحی روستایی (مطالعهٔ موردی: شهرستان رضوانشهر، ایران)

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چکیده مبسوط

۱. مقدمه

شهرستان رضوانشهر که در بین گردشگران به نگین شهرهای گیلان شهرت یافته، یکی از ۱۶ شهر ستان واقع در ا ستان گیلان ا ست که دارای آب و هوای کوهستانی و چهار فصل بسیار جذاب است که این امر باعث شده که در تمام طول سال بویژه در ایام تعطیلات به عنوان یکی از مقصـــدهای مهم گردشـــگری در اســـتان گیلان شـــاخته شود. شهرستان دارای موقعیت چهار راهی و بین راهی ممتازی است که در م سیر عبور م سافران، گرد شگران عازم آ ستارا، تالش، ا ستان اردبیل و کشـــورهای قفقاز و بالعکس اســـت؛ از این رو، بررســـی رضـــوانشـــهر به عنوان یکی از مهمترین مکان‌های گردشـــگری گیلان می‌تواند بهترین فرصـــت را برای بر نامه‌ریزان به منظور توســـعه گردشگری و زیرساخت‌های آن ایجاد و الگوی مناسبی برای تقویت و بهبود اقت صاد به خ صوص در جوامع محلی و رو ستایی ارائه کند. بر مبنای مبانی یاد شـــده، پرســـش اســـاســـی تحقیق *این اســـت که "گردشـــگری چه اثراتی بر اقتصـــاد محلی ســـکونتگاه‌های روســـتایی شهرستان رضوانشهر دارد؟"*

۲. مبانی نظری تحقیق

برای رهایی از اقتصـــاد تک محصـــولی و رســـیدن به توســـعه پایدار، گردشـــگری روســـتایی یکی از مهم ترین محورهای رشـــد و توســـعه اقتصـــادی کشـــورها اســـت، زیرا افزون بر افزایش درآمدهای ارزی، اشـــتغال مولد و متنوع در روســـتاها ایجاد می کند و با فراهم کردن فرصـــت های شـــغلی مانع از مهاجرت جمعیت روســـتایی می شـــود؛ همچنین سبب حفظ توان تولیدی رو ستا و گ سترش ک شاورزی در تمامی شاخه‌های آن می‌شود. گردشگری روستایی، به عنوان یکی از راهبردهای توســـعه روســـتایی، از نیمه دون قرن بیســـتم به صـــورت رسمی در ادبیات توسعه روستایی وارد شد. موضوعات اصلی پایداری اقتصـــادی در گردشـــگری روســـتایی شـــامل منافع اقتصـــادی، متنوع سازی اقتصاد محلی، رشد اقتصادی کنترل شده، بهبود روابط محلی، منطقه‌ای و توزیع عادلانه منافع اقتصـــادی در اقتصـــاد محلی اســـت. آنچه مســـلم اســـت گردشـــگری روســـتایی به طور فزاینده‌ای توان اقت صادی و پتا نسیل‌های زی ستی را در مناطق رو ستایی بالا برده و محرک حیات سکونتگاه‌ها و نیز بهبود دهنده شرایط زندگی جوامع روستایی به حساب می آید.

۳. روش تحقیق

نوع تحقیق به لحاظ هدف توســـعه‌ای و از حیث ماهیت توصـــیفی ـ تحلیلی است. برای سنجش و تعیین رابطه گردشگرپذیری سکونتگاه و ســـطح اقتصـــاد محلی از پرســـشـــنامه خانوار و برای اندازه‌گیری شاخص‌های بیکاری، فلاکت و برخورداری، از داده‌های ر سمی مرکز آمار و بانک مرکزی ا ستفاده شده ا ست. نمونه‌گیری در ناحیه مورد مطالعه به روش نمونه‌گیری خوشـــه‌ای چندمرحله‌ای اســـتفاده شـــده اســـت؛ به منظور تعیین حجم خانوارهای نمونه در روســـتاهای مورد مطالعه، ابتدا با اســـتفاده از فرمول کوکران حجم کلی خانوارهای نمونه در شهر ستان رضوانشهر با خطای ۰,۰۵ به میزان ۳۸۰ خانوار برآورد گردید، پس از آن، با روش ســـهمیه‌ای در ســـطح هر بخش، دهســـتان و روســـتا تعداد خانوارهای نمونه آن تعیین گردید. برای رتبه‌بندی و ســـطح‌بندی برخورداری و اقتصـــادی روســـتاهای مورد مطالعه از مدل تاپســـیس بهره گرفته شـــده اســـت. برای وزن‌دهی

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شاخص‌ها از روش آنتروپی شانون استفاده گردید. به کمک نرم افزار SPSS و GIS به استخراج داده‌های موجود از پرسشنامه اقدام نموده و در تحلیل استنباطی داده‌ها آزمون همبستگی پیرسون تحلیل شده‌است.

۴. یافته‌های تحقیق

یافته‌های تحقیق نشان داد که روستاهای تیپ کوهستانی/کوهپایه‌ای از جمله جهان‌گریه، زندانه، ارده و ... به سبب چشم‌انداز بکر جنگل و مراتع سر سبز و همچنین به دلیل آن که حضور گردشگران در این ناحیه همزمان با فصل گرم سال در تابستان است ارتفاعات به دلیل نقش تعدیل کننده می‌توانند داشته باشند، شاهد بیشتر حضور گردشگران در سال است و بررسی وضعیت درآمد خانوارهای ساکن در روستاهای گردشگرپذیر ناحیه رضوانشهر نیز نشان داد که میانگین درآمد خانوارهای روستای رودبار سرا با رقمی نزدیک به ۱۹ میلیون ریال بالاترین میزان درآمد ماهیانه دارند و این میزان به رقم ۹/۵ میلیون ریال نیز در روستاهایی همچون رزدار و بیاچال می‌رسد. بررسی نرخ بیکاری روستاهای گردشگرپذیر که کمترین نرخ بیکاری در روستاهای کوهستانی و بیشترین نرخ بیکاری نیز در نواحی روستایی جلگه‌ای/دشتی قرار دارند. همچنین سطح‌بندی اقتصاد محلی روستاهای مورد مطالعه نشان داد که اوزان شاخص‌های مورد مطالعه در میان روستاها در نوسان است به طوری که پایین‌ترین آن با ۰,۰۰۱۷ مربوط به روستای کیش‌خاله و بالاترین آن با ۰,۹۰۵۶ مربوط به روستای پونل است. سکونتگاه‌های روستایی مورد مطالعه در شهرستان رضوانشهر از لحاظ سطح‌بندی اقتصادی در سه سطح(اول، دوم و سوم) دسته‌بندی شده‌اند، به طوری که روستاهای(نوکنده، اردجان، پونل، وزشت و اورما) بین اوزان ۰/۶۲۶۸ تا ۰/۹۰۵۶ در سطح اول روستاهای مورد مطالعه قرار گرفته‌اند.

۵. بحث و نتیجه‌گیری

گردشگری به عنوان فعالیت پررونق و دامنه‌دار قرن حاضر، در فضاهای روستایی دارای اثرات متنابهی است. بررسی میانگین درآمدی خانوارهای روستایی در سه تیپ مشخص گردید سکونتگاه‌های روستایی که در تیپ کوهپایه‌ای/کوهستانی قرار گرفته‌اند نسبت به دو تیپ دیگر از میزان بالاتری برخوردار است. نتایج حاصل از آزمون ضریب همبستگی پیرسون نشان داد که متغیر مستقل تعداد گردشگر با متغیر وابسته سطح اقتصاد محلی با ضریب همبستگی ۰/۶۲۶ در سطح اطمینان ۰/۹۹ رابطه معنادار دارند. نتایج سطح‌بندی سه تیپ مورد مطالعه نیز نشان داد که تیپ کوهپایه‌ای/کوهستانی در رتبه نخست قرار گرفته است و تیپ های ساحلی و جلگه‌ای به ترتیب در رتبه‌های بعدی جای گرفته‌اند. در نتیجه گردشگری در توسعه نواحی روستایی شهرستان رضوانشهر و ارتقای اقتصاد ساکنان محلی به عنوان راه کاری مناسب و مکمل دیگر بخش‌های اقتصادی نقش تعیین کننده‌ای ایفا نماید، باید به توزیع منافع حاصل از آن نیز توجه نمود تا همه سکونتگاه‌های روستایی در تیپ‌های مختلف شهرستان به طور عادلانه و یکسانی از مواهب حاصل از گردشگری بهره‌مند شوند.

کلمات کلیدی: توسعه اقتصادی، گردشگری اقتصاد روستایی، رضوانشهر.

تشکر و قدردانی:

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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.

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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 (http://jrrp.um.ac.ir) 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 word شامل اسامی و مشخصات نویسندگان به فارسی و انگلیسی.

ب) فایل اصلی مقاله بدون مشخصات: در محیط word 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 Word.

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 Rplanning@um.ac.ir

وب سایت: http://jrrp.um.ac.ir/

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 Times New Roman11 با نرم افزار Word تهیه شود. مقالات، روی کاغذ A4 (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 single 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 Times New Roman14 سیاه تایپ شود.

۵ . نام نویسندهٔ مقاله با قلم سیاه Times New Roman10 عنوان علمی یا شغلی او با قلم Times New Roman10 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 Times New Roman 11 به صورت تک ستونی باشد.

۷ . شکل‌ها و نمودارهای مقاله حتماً اصل و دارای کیفیت مطلوب باشد. فایل اصلی اشکال (تحت PDF، Word،Excel) و با دقت ۳۰۰ dpi ارائه شود. اندازهٔ قلم‌ها خصوصاً در مورد منحنی‌ها (legend) 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 (APA) 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 الفبایی نام خانوادگی نویسنده بر اساس الگوی فهرست نویسی APA تنظیم گردد.

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بسم الله الرحمن الرحيم

دانشکده ادبیات و علوم انسانی

مجلّهٔ پژوهش و برنامه‌ریزی روستایی

سال هشم، شمارهٔ ۳، تابستان ۱۳۹۸، شمارهٔ پیاپی ۲۶

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: ۲۰۰۰۰ ریال (تک‌شماره) خارج کشور: ۲۵ دلار (آمریکا- سالانه)، ۲۰ دلار (سایر کشورها- سالانه)

درگاه الکترونیکی: http://jrrp.um.ac.ir/ E-mail:Rplanning@um.ac.ir

*** 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 (ISC)**
- **پایگاه اطلاعات علمی جهاد دانشگاهی (SID)**
- **پایگاه بانک اطلاعات نشریات کشور (Magiran)**
- **فهرست دسترسی آزاد مجلات (Doaj)**
- **Index Copernicus- RICeST- ISI-Noormags- Googlescholar- Civilica- Oaji**

دانشگاه فردوسی مشهد

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مجله پژوهش و برنامه ریزی روستایی

سال هشتم، شماره ۳، تابستان ۱۳۹۸، شماره پیاپی ۲۶

شاپا: ۲۳۲۲-۲۵۱۴