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The Effect of National and State Land Resource Allocation on Sustainable Rural Development (Case Study: Northern and Southern Bar'an Rural District in Isfahan Province)

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Abstract

Purpose- In addition to preservation of and getting religious and legal rights of the government and people, one of the most important goals of ownership and consolidation of national and government domains is to keep and develop renewable natural resources and to allocate them for development of agricultural and productive activities. The ultimate goal of the legislator, has been movement towards comprehensive agricultural self-sufficiency, deprivation reduction, and development in villages. The present study aims at investigating the effect of national land resource allocation on rural sustainable development. As a result, the rural districts of Northern and Southern Bar'an, as a part of the central province of Isfahan, were selected.

Design/methodology/approach- The present study is applied in terms of aims, descriptive-analytical in terms of research method, and survey study in terms of data collection. Data collection was performed through library and field studies. The population of the research consisted of farmers of five villages of the Northern Bar'an rural district and five villages of the Southern Bar'an rural district and 30 experts. A sample 260 farmers were selected using Cochran formula.

Findings- The results indicated that the effectiveness of the allocation of national and government lands on the dimensions of rural sustainable development is at a moderate level. It shows poor efficiency of allocation of national and public land resources.

Research limitations / implications- Problems like farmers' reluctance to cooperate and questionnaire distribution were among the challenges faced in this research.

Originality/value: Given the importance of the studied region in production and agricultural, the findings of the present study can be regarded a big step in exploiting the potentiality of this region to determine strategies for sustainable rural development.

Key words: Land allocation, Sustainable rural development, Northern and Southern Bar'an Rural Districts, Isfahan.
Paper type-Scientific & Research.

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1. Introduction

Agriculture has long been the subject of human's attention, serving as the most important ground for providing basic human needs, not only for individuals, but also for governments. For this reason, from the ancient time to the present time, with the implementation of diverse methods and measures, attempts have been made to expand agricultural lands, with agricultural development becoming an important approach to rural and national development. Today, in many countries around the world, agriculture is the main economic activity and a key component of rural life (EC, 2000) so that more than 50% of the national revenues of developing countries come from this sector, and the economy of rural areas, which constitutes 75% of the population of these countries (IED, 2018) and 47% of the world's population (World Bank, 2014), is reliant on this sector. However, due to reduction in employment, low productivity and incomes, technological developments, etc., the population working in this sector has fallen sharply, especially in developed countries, reaching 2% in the United States and 5% in Europe (Sengupta, 2018). In rural development theories, however, there is still emphasis on a multifunctional agricultural approach (related industries, production, distribution and sale of products, etc.) (Marsden & Sonnino, 2008) and agriculture is seen as the backbone of the economic system in many regions (IED, 2018). Fei and Ranis also argue that development in the agricultural sector represents a rapid industrial development strategy (Hayami & Ruttan, 1985/1999).

According to Iranian experts, agriculture is one of the most powerful economic sectors in the country, which supplies about one-fifth of GDP, one-third of employment, and more than four-fifths of food needs (Asayesh & Falahtabar, 2013), and the necessity of development and expansion in this sector cannot be overemphasized. However, agricultural development depends on a variety of factors, including the availability of water resources and technology, among other things.

With the advancement of industrial areas in Iran, there were significant changes in approaches and plans from agricultural to industrial development. In the first (1948-1955) and second development plans (1955-1962), special attention had been dedicated to the agricultural sector, but from the third development plan, the role of agriculture was overshadowed with an emphasis on the industrial development. As such, not only agriculture's share of gross domestic product (GDP) fell, but also the budget allocation to this sector saw a dramatic decline.

With the victory of the Islamic Revolution and with the aim of expanding social justice, reducing social and economic inequalities and reducing deprivation in rural societies, institutions such as the Seven-Member Board of Land Allocation in Rural Communities was established to help improve the economic and social situation of villagers (Azkia and Ghafari, 2013). The purpose of land allocation was to exploit land and water resources for the production of agricultural and animal products (farming, horticulture, forestry, livestock, poultry, aquaculture and beekeeping), with an eye to land restoration, and the creation of employment and revenues for indigenous people. (Land Allocation & Land Restoration Act, May 21, 1980). From another perspective, the ownership and consolidation of national and state lands, in addition to the preservation of and getting the legal rights of the government and the people, can lead to the conservation and development of renewable natural resources and their allocation to the development of agricultural and productive activities, while generating productive employment and laying the ground for the economic self-sufficiency of the country (Ashtiani, 2009). At the same time, the recognition of the concept of sustainable development as a reaction to the consequences of the capitalist economy, which considers economic growth as the unlimited exploitation of natural resources and the transformation of human resources and materials (Khatunabadi, 2005), received particular attention at the global level together with an emphasis on the protection of natural resources and the prevention of environmental degradation along with improved quality of life of individuals. Therefore, an assessment of the impact of allocating national and state land resources on rural communities, on the one hand, and the dimensions of the sustainable rural development approach, on the other hand, requires a scholarly analysis.

There is no accurate data on the performance of the boards of land reform acts after the Islamic Revolution (with all the ups and downs associated with the execution of this Act), but according to the

available information, by the end of 1992, 507.5 thousand hectares of national lands, 53 thousand hectares of confiscated lands, 82 thousand hectares of rain fed lands and 850 thousand hectares of temporary cultivated lands came under the supervision of the said board (Hosseini Abari, 2004). Also, the total area of land allocated was 73276 hectares in Isfahan province until 1988 (Afrakhteh, 2014).

Bara'an Plain in the east of Isfahan is one of the areas in which national and state land resource allocation have been made. According to the official reports, the chief activity in this plain is agriculture (Isfahan Agricultural Jihad Organization, 2016). According to available information, 23 villages in this area (Baraan) have benefited from the allocation of state lands, and the land allocation during 1979 to 1992 targeted more than 350 households. However, villagers in the region are still in the grip of poverty, rising unemployment, lack of rural development, traditional and subsistence farming, low agricultural productivity, regional inequality, permanent and seasonal migration, and other socioeconomic and environmental problems (land use change, land abandonment, soil degradation, wastage of resources, etc.). These problems indicate the ineffectiveness of rural development approaches and strategies in recent decades. Therefore, in this study, the effect of land allocations as one of the important strategies for the development of rural areas in Bara'an has been investigated in an attempt to answer the main question, "What is the effect of national and state resource land allocation on the dimensions of sustainable rural development of in the region?"

2. Research Theoretical Literature

2.1. Concepts and Views

The basis of this research, as the title suggests, is founded upon several basic concepts (village, sustainable rural development, national and state lands, etc.) and related theories (which explicitly or implicitly refer to the subject).

Village represents the first geographic unit that humans have developed for living together. The human groups that used to lead a migratory life by collecting fruits and hunting, learned farming through experience and gradually abandoned the nomadic lifestyle in favor of settlement. The result was the establishment of village (Nouri & Norouzi, 2017). Therefore, "a village was the natural, social, cultural and administrative unit, with farming constituting the primary activity of its inhabitants" (Taleb & Anbari, 2005). Besides the definition of the village, one of the challenging issues, especially in recent decades, has been the concept of "development" and its strategies, especially in rural areas. It is a concept, which according to Todaro, is both an objective reality and a subjective state in which society, through the amalgamation of social, economic and institutional processes, provides means to obtain a better life (Todaro, 1985/2005).

In the late 1960's and early 1970's, while the industrial development strategy was recognized as a desirable goal for many countries, a sort of revision was made in development theories. On the one hand, the concept of development was revised from a merely economic dimension to the economic-social development, on the other hand, the necessity of stressing the importance of agriculture and its role in developing countries, as the main activity of the majority of people, received growing attention (Morris, 1998/2008; Sachs, 1992/1998). Therefore, since the 1970s, special attention has been paid to agricultural development as the most important factor in rural development. Since agriculture in many countries provided a source of employment and livelihood for rural people, the effect of agricultural development on rural development was undeniable, and it was regarded as the equivalent of rural development (Dias, & Vikrmayanak, 1983). In this regard, Malthus (1789) may be the first economists who, in his development perspective, has dealt with the geometric progression of population growth and the arithmetic progression of growth in food productions, reiterating the need to focus on cultivating new agricultural lands. He maintainedthat the newly cultivated lands will be less fertile than the existing ones and will have limited production capacity. Ricardo (1817) also discussed the potentials of agricultural sector (Azad Armaki, 2007). Nevertheless, the current approach regarding the role of agriculture in development is still strongly influenced by the classical school, mainly the ideas of Adam Smith, Malthus, and Ricardo (Hayami & Ruttan, 1985/1999).

The crystallization of ideas, approaches and strategies in the field of development and its implications, including human development and conservation of the environment, happened in the late 80s. From the intersection of these discussions, the paradigm of "sustainable development" came to fruition. In this way, sustainable rural development strategy can be considered the zenith of rural development strategies. Therefore, "sustainable rural development" is concerned with the provision

of all the needs of rural people, taking into account the rights of all people to exploit available resources, not only for the current generation, but also for future generations without undermining their abilities (Nouri and Norouzi, 2017)

By the definition, national lands consist of natural forests or groves, as well as rangelands, which in accordance with the Nationalization of Forests and Rangelands Act passed in 1962, belong to the government (Iranian Organization of Forests and Rangelands, 2001) and "state lands", whether registered or not, are state-owned lands that have been transferred to the government through various means such as land reform, unknown owner, etc., along with lands belonging to the state that have been allocated to natural and legal persons or governmental institutions without being returned to the government for any reason (Ashtiani, 2009).

"The allocation of national and state lands" falls under the land reform, which is one of the economic strategies of rural development. Land reform usually involves the redistribution of property rights in favor of landless farmers or those with limited plots of land. Among its various forms, the transfer of land from large landowners to smallholders [prior to the Islamic Revolutionary], the allocation of lands to new inhabitants or transformation of state-owned lands into private and cooperative [in the post-Revolution era] can be mentioned. This development approach is so important that Myrdal calls it the key to agricultural development, and Economic Commission of Latin American along with FAO consider it as a prerequisite for the development of agriculture and rural areas (Todaro, 1985/2005). Peter Dorner, also contends that land reforms pave the way for increasing productivity and production, which is followed by a fair distribution of income and incentives for investment. The history of developed countries such as Japan, the United Kingdom and the former Soviet Union suggest that they also have undertaken land reform to fuel development (Dorner, 1972/1977).

Hayami & Ruttan have also introduced agricultural development theories in the form of six models in their work "Agricultural Development, an International Perspective". These models include 1. Resource Exploitation, 2. Resource Conservation, 3. Location Model, 4. Diffusion model, 5. Productivity and 6. Induced Innovation. The first model, which, as the oldest model, has been used for a longer term, and the second model that values the conservation of the environment and resources (Hayami & Ruttan, 1985/1999), can be cited as theoretical infrastructures of this research.

In Iran, land reforms were implemented in two forms before and after the revolution. Prior to the revolution and in line with the political developments during the Pahlavi era (1962), some measures were taken in this regard. After the victory of the Islamic Revolution, the Revolutionary Council approved the bill on the allocation and restoration of land in 1979 with the aim of providing deprived villagers with lands. By the enforcement of this law, the revival of lands and the expansion of production capacity and the full support of farmers were put on the agenda of Seven-Member Board (Hosseini Abari, 2004). Another legal means of land allocation is Article 75 of the law of collecting certain state revenues and allocating them for specific purposes, which was enacted by the Islamic Consultative Assembly of Iran in 1994. Under this law, the Ministry of Agriculture can, within the framework of economic plans, transfer lands on the basis of the mechanism envisaged in the Regulations (Ashtiani, 2009).

In this context, the issue of the allocation of national and state lands with respect to its objectives is linked to the economic, social and environmental dimensions of sustainable development. This is the issue explored in this paper, and its effects in a sample area (Bara'an) in Isfahan province has been assessed.

2.2. Research Background

The review of the relevant literature suggests a bulk of studies have been carried out on agricultural development and sustainable rural development. However, a paucity of specific applied research in the study region from the perspective of this paper is felt. However, some related studies by researchers in Iran and other countries could be cited.

Bazi (1999) investigated land allocation and its socioeconomic effects in the Aghghala area, concluding that although land allocation was associated with a decrease in production per unit area, it has resulted in relative improvement of the living conditions of villagers. Ghanbari & Barghi (2010), in a research on the role of cooperatives in the development of rural areas of Isfahan province, concluded that these cooperatives had not been successful. Badri, Rokn al-Din Eftekahri, Salmani & Behmand (2011), by analyzing the role of the agricultural production system, reported that by increasing the level of cultivation and yield, a number of outcomes such as food security, increased social participation and solidarity and ultimately

sustainable rural development can be achieved. Nayeri (2012) also did a historical study of agricultural land allocation in the Islamic Republic of Iran during the years 1978-89, indicating that achieving social justice and fighting poverty along with economic self-sufficiency have been the main reasons for this course of action. Hadizadeh Bazzaz, Bouzarjamhourii, Shayan & Noghangi (2015) assessed the performance of production cooperatives in providing infrastructure services to villages and their implications for sustainable agricultural development, pointing out that the performance of cooperatives have been at best mediocre in terms of socioeconomic sustainability and undesirable with respect to environmental issues. Also, Amouzade, Jalali, Alipour, Papoli Yazdi & Ghorbani (2016), in a study titled "Land allocation, a project aimed at development or facilitation of land expropriation in northern Iran", concluded that the land allocation to natural and legal persons has fallen short of achieving of all its predicted legal objectives (employment generation, income growth, and the reduction of natural resource degradation).

In foreign studies, FAO (2002), in its research on land seizure and rural development, stated that vulnerable families, through access to land, can obtain sustainable livelihoods, which is an integral part of sustainable development. In a paper titled "land reform and sustainable development," Boyce, Rosset & Stanton (2005) posited that the redistribution of agricultural lands is effective in economic development and environmental quality. They argue the land is the most important asset in the agricultural economy and is effective in reducing poverty. In addition, the traditional knowledge of farmers and promoting a sense of responsibility toward land ownership also contribute to environmental protection. FAO (2006) explored the relationship between land reform, poverty and sustainability in Rwanda, reporting that increased investment in agriculture has been accompanied with rising disputes over land ownership. Pasakarnis & Maliene (2009) introduced new policies on land tenure principles to foster sustainable rural areas in Lithuania. They asserted that land fragmentation to generate agricultural products was the major problem and introduced a policy of consolidation of ownership with environmental and sustainability considerations as an effective tool for land management and the realization of sustainable rural development. Also, Gerstter, Kaphengst, Knoblauch & Timeus (2011) by assessing the impact of land ownership in rural areas, pointed out that the nature of ownership has diverse effects on rural poverty in different countries. Nevertheless, land allocation to villagers is necessary in order to mitigate poverty and ensure food security. Plewa (2013) in a report on rural development statistics in the European Union analyzes rural development based on sustainable development indicators in the period of 2007-2013, suggesting that for the years of 2014-2020, ensuring sustainable management of natural resources and obtaining a balanced land development for the purpose of job creation and sustainability constituted an effective strategic plan for EU. Considering the budget of the agricultural sector in India, Sengupta (2018) also called for an increase in government investment in agriculture and in rural development.

Based on the issues raised in the theoretical foundations and research literature, the conceptual model can be described according to Figure 1.

3. Research Methodology

3.1 Geographical Scope of the Research

Bara'an rural area consists of two rural districts of Northern and Southern Bara'an, and in terms of the geographical division, it falls under the control of Isfahan Province. It is located in 51 degrees 45 minutes to 52 degrees and 6 minutes east longitude and 32 degrees 19 minutes to 32 degrees and 55 minutes north latitude. This area, situated in the southwest of the city of Isfahan at a distance of 24 and 38 kilometers from this city (Figure 2), has an area of more than 501,375 square kilometers (Iranian Statistics Center, 2011).

According to the available information, there are more than 4250 farmers working in 13 thousand hectares of cultivated land in Norther Bara'an, and 3930 farmers working on more than 14445 hectares of cultivated land in the Southern Bara'an (Agricultural Jihad Organization of Isfahan, 2016). The ratio of employment in the agricultural sector to other sectors is 70% in Northern Bara'an and 67% in Southern Bara'an, respectively (Iranian Statistics Center, 2011).

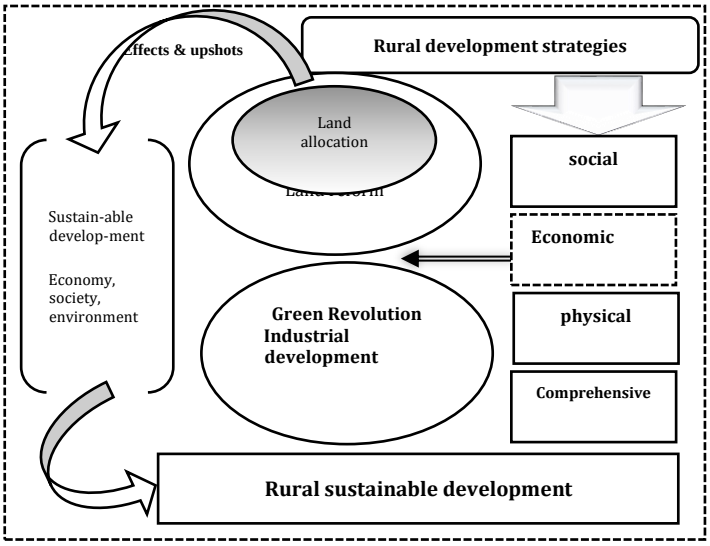

Figure 1. Conceptual model of the research
(Source: Research Findings, 2018)

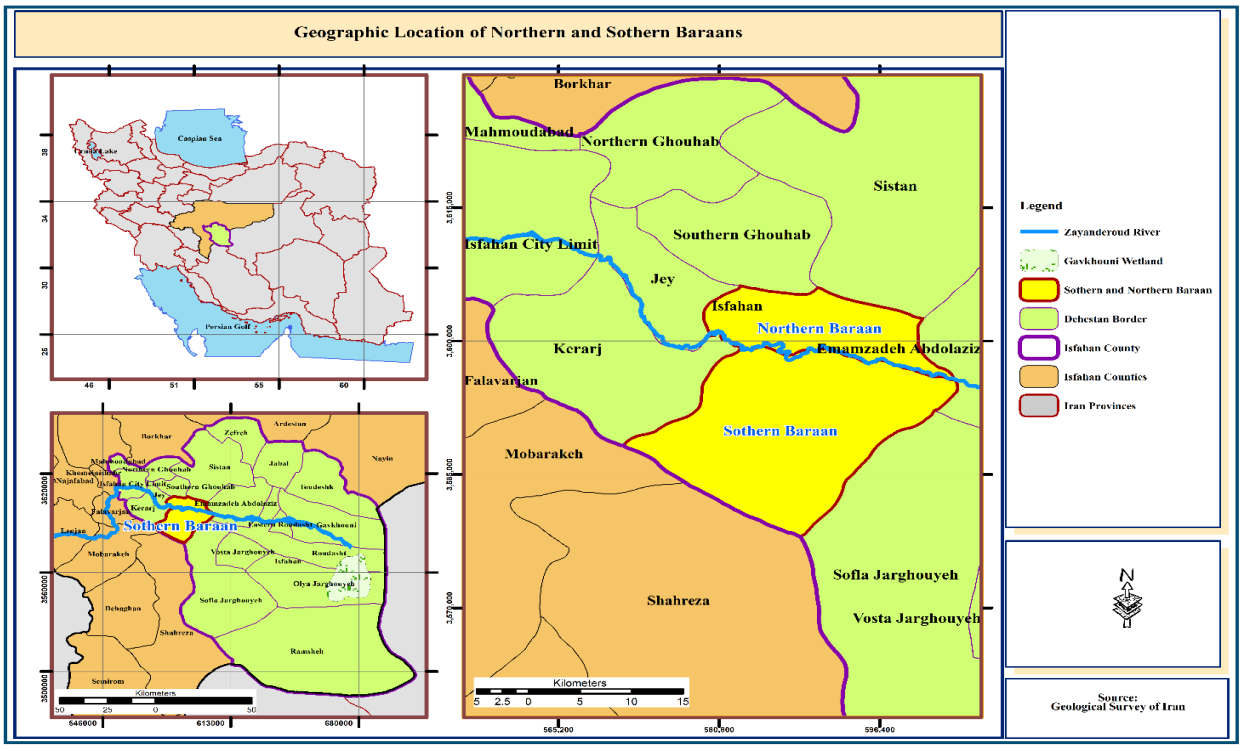

Figure 2. Location of the study area in the city, province and country
(Source: Research Findings, 2018)

3.2. Methodology

This is an applied research in terms of its objective which adopts a descriptive method based on a survey study. The data collection was also conducted using library research and field study.

The statistical population consisted of farmers from 5 villages in the Northern Bara'an (Shidan, Ruran, Rahimabad, Qarneh and Kabootar Abad) and 5 villages in the Southern Bara'an (Hossein Abad, Jozdan, Timiart, Fasaran and Brisan). Based on the Cochran formula, 260 households were selected as the sample. These households were distributed according to the "principle of equal sharing" among the villages under study and the cluster and random

sampling methods were used to select the villages. Also, rural experts, including agricultural experts and rural decision makers as well as planning authorities, with an estimated number of n=30, were selected as the secondary population. The questionnaire was distributed among the subjects, and 23 completed questionnaires were returned 7 questionnaires were incomplete (not returned, not filled properly or containing many errors) were excluded to improve the accuracy of results).
Data collection instrument consisted of note taking and questionnaires and the validity of instrument was evaluated based on the views of relevant experts. The reliability of the questionnaire was calculated using Cronbach's alpha as described in Table 1. Data were scored on a 5-point Likert scale and analyzed by SPSS software.

Table 1. Cronbach's alpha coefficient in the statistical sample
(Source: Research Findings, 2018)

Items	Alpha value	
	Experts	Farmers
Economic	0.883	0.839
Social	0.868	0.769
Environmental	0.722	0.870
Total items	0.888	0.876

3.3. Research Variables and indices

In order to investigate the effect of national and state land resource allocation on sustainable development of rural areas in Baraan, a set of indices embracing three dimensions of sustainable rural areas were employed as described in Table 2.

Table 2. Research variables and indices
(Source: Research findings. Adapted from: Amouzade et al., 2016; Badri et al., 2011; Norouzi et al, 2018).

	Indices	Variables
Social	Justice	Reducing the social gap between the village and the city, alleviating poverty in rural society, improving the quality of life of villagers, promoting education and agricultural skills, reducing ethnic tribal differences and ownership disputes, nurturing respect for each other's rights, etc.
	Participation	Participation in the creation of home-based businesses, expanded contact and partnership with government agencies, improved cooperation of rural residents, the prevention of agricultural land fragmentation, fostering of collective work and participation in shared cultivation.
	Migration	Curtailing rural-urban migration, decreasing youth migration, n the gravity of settlement in the village, reducing seasonal migration of villagers, increasing the stay of people in the village
Environmental	Soil and water conservation	Raising awareness of the destructive effects of improper exploitation of groundwater, promoting awareness about preventing soil degradation and erosion, reducing unauthorized construction and land use change, raising farmers' awareness of grabbing national and state lands
	Environment	Raising awareness about rural environment, strengthening the protection of the natural resources of the village, increasing the productivity of surface water resources, increasing the utilization of groundwater resources, preventing the salinization of soil resources
Economic	Employment	The generation of new employment opportunities, increased job opportunities for women and youth employment in the agricultural sector
	Income	Increasing the income of rural residents creating sustainable revenues, increasing annual revenues from activities related to agriculture, increasing the saving of rural resident
	Efficiency and production	Changing and improving agricultural production, increasing the application of mechanized agricultural tools, modern irrigation methods, enhancing the quality of manufactured products, increasing agricultural exports, expanding cultivated lands, raising production
	Investment	Encouraging investment in the village, contributing to the return of capital to the villages

4. Research Findings

4.1. Descriptive Findings

According to the descriptive findings related to the farmers' characteristics, the mean age of subjects was 50 years. 92.3% were married and 7.7% were single. As for the level of education, 15% were illiterate, 80.7% had elementary education up to diploma, 1.3% had higher education and 1.2% had a bachelor's degree or higher. Regarding the status

of employment (main occupation), 91.5% were farmers, 5% were livestock breeders, 0.8% had an office job and 2.7% were involved in other businesses. The monthly income of 21.9% was less than 500 thousand Tomans, 56.5% between 0.5 and 1 million, 18.1% between 1 to 1.5 million and 3.5% between 1.5 and 2 million Tomeans. As far as the land allocation is concerned, 5% of subjects had received less than 2 hectares, 93.1% between 2-5 hectares and 1-1% more than 5 hectares of land, and less than 0.8% were deprived of any land. In the case of land ownership prior to the land allocation, 33.5% were land owners while 66.5% did not have any property. In fact, this result indicates the relative realization of land allocation objectives (providing land for the poor rural population).

Descriptive findings regarding experts also showed that the majority of respondents were male (86%), 91.3% were married and 7.8% were single. As for the level of education, 13% had high school diploma, 4.4% had associate degree, 34.8% had a bachelor's degree and 47.8% had a master's degree. With regard to the age, 13%, were between 35 and 26 years old, 30.5% in the range of 36-45 years, 52.2% between 46 and 55 years old and 4.3% in the range of 55-65 years.

4.2. Inferential Findings

To evaluate the normal distribution of research data, Kolmogorov-Smirnov test was used. Since the significance level (sig = 0.558) was larger than 0.05, the assumption of normal distribution was confirmed. Single sample t-test was also used to assess the effect of national and state land resource allocation on different dimensions of rural sustainable development. Since a 5-point Likert scale had been adopted, number 3 was considered as the average. The results for different dimensions and the two groups are as follows:

A: Farmers' Perspectives

1. Social Indicator (Justice, Participation, Migration): According to the results of Table 3, as for the subscale of justice, the reduction of social gap between city and rural dwellers (*M* =3.64) had a high impact, and the reduction of ethnic, tribal, and ownership differences (*M* =2.82) had a weak effect and the rest of items had a moderate effect. Therefore, as suggested by the FAO's results (2006), due to the importance of ownership, disagreements and disputes between rural residents have been on rise. Field studies have also shown that over time, in wake of limited water resources, and especially recent droughts, such disputes have been intensified. The results of the combined index were moderate with respect to the significance level. In the subscale of participation, all items, exhibited a weak effect, and the composite index was also weak. The same was true about the subscale of migration, so that according to the mean of all items, the analysis indicated a weak effect and the total composite index was also weak. The remarkable point in this context was the great impact of the migration of young people, the introduction of new technology and tools for agriculture, and the limitation of agriculture due to water resource constraints. In fact, although from farmer's perspective, the allocation has not had a positive effect on social dimensions of sustainable development, it has affected the variables of the study.

Therefore, in general, it can be argued that from the viewpoint of farmers and rural consumers, the allocation of land and national resources have exerted a weak effect on various social indicators, though in some cases such as "reducing social gap between the city and the rural dwellers and establishing justice", positive effects have also been observed. In other words, a large share of the people who benefited from these allocations acknowledged its effect on upholding justice.

2. Environmental Index (Water, Soil and Environment Conservation): As shown in Table 4, under the water and soil conservation subscale, the mean of all items was less than average, which indicates the weakness of all items, except for the reduction of national and state land expropriation that had a moderate effect. Also, the composite index had a weak effect. In the environmental subscale, the item of improved productivity of groundwater resources (*M*=3.15) had a high effect, and the rest of items and the composite index with a mean of 2.80 exerted a weak effect.

According to the results of Table 4, although some of the items had positive effects, in general it can be posited that from the perspective of farmers and beneficiaries, the allocation of national and state lands has imposed a weak effect on the environmental dimension of sustainable rural development. In this context, the notable point is the low level of literacy among the beneficiaries, on the one hand, and the lack of training courses by relevant authorities and institutions regarding the environmental aspects and improper utilization of resources, on the other hand, which have affected

the results of this study. Of course, the role of environmental constraints and climatic hazards (especially droughts) in the last two decades should not be overlooked, as it has led to an augmented utilization of groundwater resources and the promotion of new irrigation methods. The important and negative point is intensified exploitation of groundwater, which is clearly evident in these results.

Table 3. Single sample t-test of social index and its sub criteria

(Source: Research Findings, 2018)

Sub-scale	Social index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Justice	Reduced social gap between city and villages	2.61	3.16	0.009	0.161	0.039	0.283	High
	Reduced rural poverty	-1.39	2.90	0.165	-0.092	-0.222	0.038	Moderate
	Change and improvement of the quality of life in rural areas	-1.68	2.90	0.093	-0.100	-0.216	0.016	Moderate
	Training of agricultural skills	1.29	3.06	0.197	0.069	-0.036	0.174	Moderate
	Reducing ethnic and ownership disputes	-2.70	2.82	0.007	-0.173	-0.299	-0.047	Weak
	Respect for the property rights of the villagers	1.95	3.10	0.051	0.100	-0.005	0.200	Moderate
Participation	Composite	-0.140	2.99	0.889	-0.005	-0.086	0.075	Moderate
	Contributing to family employment	-3.30	2.83	0.100	-0.169	-0.270	-0.068	Weak
	Contact and partnership with state organizations	-2.44	2.84	0.015	-0.157	-0.284	-0.030	Weak
	Fostering cooperation and support among villagers	-4.32	2.76	0.000	-0.238	-0.347	-0.129	Weak
	Prevention of agricultural land segmentation	-6.59	2.57	0.000	-0.423	-0.549	-0.296	Weak
	Collective work and participation in mass cultivation	-0.843	2.45	0.000	-0.542	-0.669	-0.415	Weak
	Composite	-7.63	2.69	0.000	-0.306	-0.385	-0.227	Weak
Migration	Reduced migration of villagers to the city	-4.10	2.70	0.000	-0.296	-0.438	-0.154	Weak
	Curtailed migration of the youth from rural areas	-5.12	2.60	0.000	-0.392	-0.524	-0.241	Weak
	Increased attractiveness of stay in the village	-8.24	2.42	0.000	-0.576	-0.714	-0.439	Weak
	Reduced seasonal migration of villagers	-10.11	2.28	0.000	-0.719	-0.859	-0.579	Weak
	Longer stay of people in the village	-8.11	2.40	0.000	-0.592	-0.736	-0.448	Weak
	Composite	-8.78	2.48	0.000	-0.515	-0.631	-0.399	Weak
	Total composite	-7.43	2.72	0.000	-0.275	-0.348	-0.202	Weak

Table 4. Single sample *t test* of environmental index with its subscales

(Source: Research Findings, 2018)

Sub-scale	Environmental index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Water and Soil Conservation	The adverse effects of excessive exploitation of groundwater	-2.42	2.84	0.116	-0.153	-0.279	-0.028	Weak
	Prevention of soil degradation and erosion	-4.08	2.75	0.000	-0.250	-0.370	-0.129	Weak
	Reduced construction of unauthorized buildings and change of land use	-4.99	2.64	0.000	-0.357	-0.498	-0.216	Weak
	National and state lands grab	-0.591	2.96	0.555	0.034	-0.149	0.080	Moderate
	Composite	-4.29	2.80	0.000	-0.199	-0.290	-0.107	Weak

Sub-scale	Environmental index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Environment	Increased attention to the environmental issues in villages	-7.24	2.61	0.000	-0.338	-0.494	-0.282	Weak
	Improved conservation of natural resources of the village	-3.14	2.81	0.002	-0.180	-0.294	-0.067	Weak
	Increased productivity of surface water resources	-3.35	2.78	0.001	-0.215	-0.341	-0.088	Weak
	Augmented efficiency of groundwater resources	2.34	3.15	0.020	0.150	0.024	0.275	Weak
	Prevention of soil salinity	-0.112	2.99	0.911	-0.007	-0.143	-0.127	Weak
	Composite	-2.73	2.87	0.007	-0.128	-0.221	-0.035	Weak
	Total composite	**-4.33**	**2.83**	0.000	**-0.163**	**-0.238**	**-0.089**	Weak

3. Economic Index (Employment, Income, Productivity, Production and Investment): The results of t-test for the economic aspect of sustainable rural development suggested that the subscale of employment, considering the mean of all items and the composite index, had a weak effect. The income level was also low for all items and the composite index was weak. The subscale of production and efficiency increased the use of agricultural mechanization with enhanced quality of products imposing a positive effect, and application of new methods of irrigation and raising the production of agricultural products and the composite index exerting a moderate effect, and the remaining items having a weak effect. Moreover, according to the mean obtained from the investment subscale, all items and the composite index had a weak effect, and the total composite index was also weak (Table 5). In general, it can be argued that from the perspective of farmers and beneficiaries, all economic items and indices, except for efficiency and production, had a weak effect. These results indicate that the objectives of land allocation, especially the economic goals, have not been realized.

Table 5. Single-sample t-test of economic index with its subscales
(Source: Research Findings, 2018)

Sub-scale	Social index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Employment	Creation of new employment opportunities	-3.78	2.75	0.000	-0.246	-0.374	-0.118	Weak
	Increased employment of women	-13.39	2.10	0.000	-0.892	-1.02	-0.761	Weak
	Motivation of youth to engage in agricultural activities	0-9.66	2.28	0.000	-0.715	-0.861	-0.569	Weak
	Composite	-10.39	2.38	0.000	-0.617	-0.735	-0.500	Weak
Income	Augmented income of villagers in recent years	-8.40	2.37	0.000	-0.629	-0.773	-0.480	Weak
	Increased expectations of high income in the future	-10.16	2.37	0.000	-0.623	-0.743	-0.502	Weak
	Improvement of income sustainability in agriculture	-11.59	2.23	0.000	-0.769	-0.899	-0.638	Weak
	Increased income from agriculture-related activities	-10.57	2.23	0.000	-0.769	-0.912	-0.626	Weak
	Elevated saving of rural residents	-14.40	1.95	0.000	-1.04	-1.18	-0.899	Weak
	Composite	-12.37	2.23	0.000	-0.766	-0.888	-0.644	Weak

Sub-scale	Social index	Test Value=3						
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		Index evaluation
						Lower limit	Upper limit	
Efficiency and production	Change of methods and improvement of production methods	-6.60	2.63	0.000	-0.369	-0.479	-0.259	Weak
	Agriculture mechanization	2.68	3.15	0.008	0.153	0.040	0.266	High
	Use of modern irrigation techniques	1.45	3.08	0.147	0.084	-0.030	0.199	Moderate
	Increased quality of manufactured products	3.46	3.18	0.001	0.188	0.081	0.295	High
	Commercialization of agricultural products	2.70	2.81	0.007	-0.180	-0.312	-0.049	Weak
	Expansion of cultivated lands	-2.61	2.80	0.009	-0.192	-0.337	-0.047	Weak
	Elevated production of agricultural goods	0.694	3.04	0.489	0.042	-0.077	0.162	Moderate
	Composite	-0.801	2.96	0.424	-0.039	-0.134	0.056	Moderate
Capital	Increased investment in rural areas	-5.51	2.61	0.000	-0.388	-0.527	-0.249	Weak
	Return of capital withdrawn from the village	-7.90	2.40	0.000	-0.600	-0.749	-0.450	Weak
	Composite	-7.25	2.50	0.000	-0.494	-0.628	-0.360	Weak
	Total composite	**-8.95**	**2.52**	**0.000**	**0.479**	**-0.584**	**-0.374**	**Weak**

What can be gathered from the evaluation of the economic indexes in Table 5 and field observations is that land allocations initially led to an increase in the level of cultivated lands and therefore production. At the same time, the increasing trend of using agricultural machinery and equipment in the country created a sense of necessity for incorporation of these machines in agricultural activities. The mechanization of crop cultivation had a bearing on production and quality of products, among other things. On the other hand, it decreased the use of unexploited labor and female employment and deteriorated the migration of agricultural workers. Therefore, for various reasons, land allocation was unable to satisfy the economic expectations of the villagers and contribute to the sustainable development of the rural economy.

B: Experts' Perspectives

1. Social Index (Justice, Participation, Migration): According to the results of Table 6, in the subscale of justice, the item of training agricultural skills and promotion (M =3.04) with a significance level of 0.043 and the observance of the property rights of individuals (M =3.17) were higher than the numerical criterion (3) set by the researcher. Other social items (poverty reduction, change in quality of life, and training agricultural skills and promotion) had moderate effects. The experts and farmers differed with respect to the item of "reduction of social gap". Another notable point is that both groups coincided about ethnic and ownership differences. Also, the composite index was moderate. In the subscale of participation, the item creating family employment (M =3.34) at a significance level of 0.043 and the item of contact and partnership with state organizations (M =3.52) at a significant level of 0.036. Had a high effect while other items together with the composite index exerted a weak impact. There was also a difference between the two groups of farmers and experts with regard to this item. This can be attributed to the establishment and development of agricultural service centers after the revolution in rural areas. However, the results of field observations regarding the reduced level of services and the relative dissatisfaction of villagers with the function of these institutions had a huge impact on these results. In the subscale of migration, the item of seasonal migration of the villagers (M= 2.91) at a significant level of 0.057 had a moderate impact while other items and the composite index exerted a weak effect. In general, experts argue that land allocation have failed to play a positive role in reducing migration of villagers to urban areas.

Table 6. Single sample *t test* for social index and its subscales
(Source: Research Findings, 2018)

Sub-criteria	Social index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Justice	Reducing social gap between villages and the city	-1.67	2.60	0.107	-0.391	-0.874	0.092	Weak
	Mitigating poverty in rural society	-.940	2.82	0.357	-0.73	-0.557	0.209	Moderate
	Changing and improving the quality of life in villages	-.940	2.82	0.357	-0.173	-0.557	0.209	Moderate
	Training and promoting agricultural skills	0.225	3.04	0.824	0.043	-0.357	0.444	Moderate
	Settling ethnic, tribal, and property disputes	-2.51	2.43	0.020	-0.565	-1.03	-0.098	weak
	Fostering respect for property rights of people in villages	0.940	3.17	0.357	0.173	-0.209	0.557	Moderate
	Composite	-1.33	2.81	0.194	-0.181	-0.461	0.099	Moderate
Participation	Creation of family employment and businesses	2.15	3.34	0.043	0.347	0.012	0.683	High
	Contact and partnership with state organizations	2.22	3.52	0.036	0.521	0.036	1.00	High
	Improved cooperation of the villagers	-3.53	2.34	0.002	-0.652	-1.03	-0.269	Weak
	Prevention of agricultural land segmentation	-3.65	2.13	0.001	-0.869	-1.36	-.376	Weak
	Collective work and participation in mass cultivation	-6.24	1.86	0.000	-1.13	-1.50	-0.754	Weak
	Composite	-3.36	2.64	0.003	-0.356	-0.576	-0.136	Weak
Migration	Reducing the immigration of villagers to the city	-3.02	2.43	0.006	-0.565	-0.952	-0.177	Weak
	Inhibiting the migration of rural youth	-2.42	2.52	0.024	-0.478	-0.887	-0.068	Weak
	Increasing the desirability of living in the village	2.30	2.52	0.031	0.478	-0.908	-0.048	Weak
	Constraining seasonal migration of villagers	-2.00	2.91	0.057	-0.347	-0.707	0.011	Moderate
	Increasing the stay of people in the village	-1.33	2.64	0.038	-0.478	-0.927	-0.029	Weak
	Composite	-3.01	2.53	0.006	-0.469	-0.792	-0.146	Weak
	Total composite	-3.03	2.66	0.006	-0.335	-0.565	-0.105	Weak

The above results suggest that from the perspective of experts, land allocation had a moderate effect on the subscale of social justice and a weak effect on other subscales, failing to exert a positive effect in this regard. In fact, the results of this table corresponded to the farmers' responses in all of the items with both groups concurring on the weak impact of land allocations on social dimension of sustainable rural development.

2) **Environmental Index** (**Water, Soil and Environment Conservation**): According to the results of Table 7, the subscale of water and soil conservation and the item of alleviating national and state land expropriation (*M*=3.00) at a significance level of p=0.000 had a moderate effect. Other items of environmental index and total composite index exerted a weak impact. Indeed, as far as environmental issues are concerned, national and state land resource allocation has not been successful.

Table 7. Single-sample t-test for environmental index and its subscales
(Source: Research Findings, 2018)

Sub-scale	Environmental index	Test Value=3						
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		Index evaluation
						Lower limit	Upper limit	
Water and Soil Conservation	The destructive effects of excessive groundwater consumption	-3.64	2.08	0.001	-0.913	-1.43	-0.392	Weak
	Prevention of soil degradation and erosion	-4.70	2.04	0.000	-0.956	-1.37	-.0534	Weak
	Reduction of unauthorized construction and change of land use	-4.15	2.21	0.000	-0.782	-1.17	-0.392	Weak
	Inhibition of national and state land grab	0.100	3.00	0.000	-0.542	-0.432	0.123	Moderate
	Composite	4.04	2.33	0.001	-0.663	-1.00	-0.323	Weak
Environment	Increasing attention to the environment of the village	-3.81	2.30	0.001	-0.695	-1.07	-0.317	Weak
	Greater conservation of natural resources of the village	-3.21	2.43	0.004	-0.565	-0.930	-0.200	Weak
	Increasing the productivity of using surface water resources	-2.51	2.47	0.020	-0.521	-0.951	-0.091	Weak
	Improving the productivity of groundwater resources	-4.30	2.04	0.000	-0.956	-1.41	-0.495	Weak
	Preventions of soil salinization	-4.59	2.00	0.000	-1.00	-1.41	-0.548	Weak
	Composite	-4.78	2.25	0.000	-0.747	-1.07	-0.424	Weak
	Total composite	-4.99	2.29	0.000	-0.705	-0.998	-0.412	Weak

The stance of experts on the impact of these land allocations on the environmental index of sustainable rural development is thought provoking. They argued that with the exception of reduction in national and state land expropriation , which could be driven by various reasons (such as declining interest in dryland farming, climate problems, monitoring by relevant institutions, etc.), the evaluations are negative in all other items, which call for further studies on its underlying reasons. Nevertheless, field evidence suggests a significant decline in economic justification of agriculture and as a result, a shift in land sales and change of land use. It has also led to decreased level of surface water, improved exploitation and lowered groundwater levels. Economic pressures and the necessity to provide livelihood for increasing households have pushed environmental concerns down the list of political agendas.

3. Economic Index (Employment, Income, Productivity, Production and Investment): The results of Table 8 show the employment subscale, the items of job creation (M=3.00) at a significance level of p=0.000 had a moderate effect. Of course, this view of the experts is mainly based upon the early years, and it has declined progressively since then.

Other items as well as the composite index had a weak effect considering their mean and level of significance. As for the subscale of income, all items and the composite index had a weak effect, as suggested by their mean and level of significance. In the subscale of efficiency and productivity, the use of modern irrigation methods (M=3.47) at a significant level of 0.478 had a high impact and other items and the composite index had a moderate effect, as indicated by their mean and level of significance. As for the subscale of investment, both items (increased investment and return of capital to the village) and the composite index exerted a moderate effect, as demonstrated by their mean. Of course, this investment is primarily concerned with the creation of second houses, villa gardens, change of land use to tourism and industry, and the investment of urban residents, among other things, which generally cannot be considered as the indicators of the sustainability of rural development. In other words, it has affected the village's production, leading to informal, unsustainable and diverse businesses that are incompatible with rural economic foundations. Also, the total composite index was found to have a weak impact.

Table 8. The single sample t-test of economic index and its subscales
(Source: Research Findings, 2018)

Sub-criteria	Social index	Test Value=3						Index evaluation
		T value	Mean	Sig. level	Mean difference	0.95 confidence interval		
						Lower limit	Upper limit	
Employment	Creation of new employment opportunities	0.325	3.00	0.000	-0.235	-0.345	0.450	Moderate
	Increased employment of women	-6.75	1.82	0.000	-1.17	-1.53	-0.813	Weak
	Motivation of youth to engage in agricultural activities	-4.47	2.30	0.000	-0.695	-0.999	-0.391	Weak
	Composite	-4.93	2.37	0.000	-0.623	-0.885	-0.361	Weak
Income	Growing income of villagers in recent years	-4.30	2.13	0.000	-0.869	-1.28	-0.451	Weak
	Increased expectations of high income in the future	-2.90	2.52	0.008	-0.478	-0.820	-0.136	Weak
	Improvement of income sustainability in agriculture	-2.42	2.52	0.024	-0.478	-0.887	-0.068	Weak
	Increased income from agriculture-related activities	-2.64	2.56	0.015	-0.434	-۰/۷۷۵	-0.094	Weak
	Increased saving of rural residents	-3.87	1.26	0.001	-0.739	-1.13	-0.343	Weak
	Composite	-4.10	2.40	0.000	-0.600	-0.903	-0.297	Weak
Efficiency and production	Change of methods and improved production techniques	0.569	3.08	0.575	0.086	-0.230	0.404	Moderate
	Agriculture mechanization	0.720	3.13	0.479	0.130	-0.245	0.506	Moderate
	Use of modern irrigation techniques	2.71	3.47	0.013	0.478	0.112	0.844	High
	Increased quality of manufactured products	-0.569	2.91	0.575	-0.086	-0.404	0.230	Moderate
	Commercialization of agricultural products	0.235	3.00	0.000	-0.121	-0.432	0.504	Moderate
	Expansion of cultivated lands	1.55	3.34	0.133	0.347	-0.115	0.810	Moderate
	Elevated production of agricultural goods	1.66	3.26	0.110	0.260	-0.064	0.586	Moderate
	Composite	1.51	3.17	0.144	0.173	-0.063	0.411	Moderate
Capital	Increased investment in rural areas	-0.238	2.95	0.814	-0.043	-0.423	0.336	Moderate
	Return of capital withdrawn from the village	-1.29	2.73	0.208	-0.260	-0.677	0.155	Moderate
	Composite	-0.863	2.84	0.397	-0.152	-0.517	0.213	Moderate
	Total composite	-2.62	2.69	0.015	-0.300	-0.537	-0.063	Weak

5. Discussion and Conclusion

The most important geographical criterion in defining villages is associated with environment and natural resources on which livelihoods depend. In this context, agriculture can be seen as the major symbol of rural economics. In his famous definition, Todaro argues that agricultural development is the basis for rural development, which is in turn a prerequisite for national development. From another perspective, more than seven decades (1948-2018) have passed since the introduction of national development planning in Iran, but still underdevelopment, poor service, migration, unemployment, environmental damages, development instability, among other things, are characteristics of the rural areas in the country. Accordingly, since the past decades (before and after the revolution), rural and agricultural areas as the center of national development, despite their ups and downs, have been at the center of attention. In this context, one of the administrative strategies has been the allocation of national and state lands, especially after the Islamic Revolution, with the aim of providing people with lands, and alleviating poverty among rural people. This action has received its fair share of admirations and criticisms, and diverse results have been yielded so far.

The rural area of Bara'an in Isfahan province, one of the agricultural poles of this province and country, is among the areas in which the above law and strategy were implemented and 23 villages benefited from these land allocations. However, scant scholarly attention has been paid to the effects of these land allocations. Therefore, in the present study, agricultural land allocations were

investigated from the perspective of sustainable rural development.

The results of individual characteristics of farmers suggested that the mean age of the farmers was relatively high and their level of education was low, but agriculture constituted the main occupation of more than 90% of subjects. With regard to the area of allocated lands, more than 90% of allocations consisted of 2-5 hectare plots of lands, which (assuming that other parameters are normal) is relatively acceptable. Also, more than 66% of subjects had not owned any land before the implementation of the plan, which is one of the positive outcomes of this plan. The results of single sample t-test in both sample groups (farmers and experts) idicated that in general, the effect of allocating national and state lands on various economic, social and environmental indicators was weak, and this plan had failed to improve sustainable rural development (Table 9).

Table 9. The Impact of national and state land resource allocation on different dimensions of sustainable rural development

(Source: Research Findings, 2018)

Variable	Sample	Frequency	Mean	T	مدنث	Evaluation
Social dimension	People	260	2.72	-7.43	0.000	Weak
	Experts	23	2.66	-3.03	0.006	Weak
Environmental dimension	People	260	2.83	-4.33	0.000	Weak
	Experts	23	2.29	-4.99	0.000	Weak
Economic dimension	People	260	2.52	-8.95	0.000	Weak
	Experts	23	2.69	-2.62	0.015	Weak

Nevertheless, the measures taken in some areas such as reduction of social gap and improvement of social justice have exerted a positive influence on the two groups.

Comparison of the views of the two groups of farmers and experts yielded comparable results. Therefore, in response to the research question, it can be said that the allocation of national and state land resources has exerted a weak effect on various dimensions of sustainable rural development.

Comparing the results of this study with other domestic and foreign studies exhibited a number of similarities and differences. The results are consistent with the researches of Bazi (1999), Ghanbari & Barqi (2010), Hadizadeh Bazzaz et al. (2015), Amouzadeh et al. (2016), regarding the failure of land allocation plans and agricultural development policies. However, it is in contrast with the results of some foreign studies (FAO, 2002; Boyce et al. 2005; Gerstter et al., 2011). In this context, factors such as the manner of execution and lack of expertise on the side of administrators, absence of supervision after land allocation, lack of education and promotion and absence of long-term planning in this area could be cited as the reason for this disparity of results.

Based on the above results, it is suggested that expert views on land allocation to be articulated to prevent continuous destruction of resources. Also, implementation of educational and promotional programs aimed at optimizing the use of allocated lands can be effective. It is suggested that, in the event of continuation or implementation in other areas, the allocations should be conditional so that the allocated lands can be reclaimed by the state in the case of migration and non-utilization by the villagers. The support of state institutions and especially Jihad Keshavarzi to equip these lands, establish a regulatory system on exploitation of lands, create and strengthen agricultural related industries, introduce modern irrigation systems, etc., are among factors that would influence the outcomes of these land allocations.

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تأثیر واگذاری اراضی منابع ملی و دولتی بر توسعهٔ پایدار روستایی

(مطالعه موردی: دهستان‌های برآآن شمالی و جنوبی در استان اصفهان)

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چکیده مبسوط

۱- مقدمه

کشاورزی از دیرباز موردتوجه انسان و به‌عنوان مهم‌ترین زمینهٔ برآورد نیازهای اولیهٔ او دارای اهمیت ویژه بوده است. همین امر موجب گردید که از گذشته تاکنون با روش‌ها و اقدامات مختلف، سطح اراضی افزایش‌یافته و به لحاظ نظری توسعهٔ کشاورزی به رویکردی مهم برای توسعهٔ روستایی و ملی تبدیل شود. در ایران نیز با پیروزی انقلاب اسلامی، نهادهایی چون هیئت‌های هفت‌نفره واگذاری زمین تشکیل و تلاش گردید تا به بهبود وضعیت اقتصادی و اجتماعی روستاییان کمک شود. هدف از واگذاری اراضی، بهره‌برداری از منابع آب و زمین با در نظر داشتن احیاء، ایجاد اشتغال و درآمد برای افراد بومی بوده است. جلگهٔ برآآن در شرق شهرستان اصفهان ازجمله مناطق اجرای طرح واگذاری بوده است. بنابراین در این پژوهش به بررسی میزان تأثیر واگذاری‌ها به‌عنوان یکی از راهبردهای مهم در راستای توسعهٔ پایدار منطقه پرداخته‌شده است.

۲- مبانی نظری تحقیق

روستا معرف اولین واحد جغرافیایی است که انسان‌ها برای سکونت در کنار هم تشکیل داده‌اند. گروه‌های انسانی به تجربه کشاورزی آموختند، یکجانشین شدند و نتیجهٔ آن ایجاد روستا بود. گذشته از تعریف روستا، یکی از مباحث چالش‌برانگیز مفهوم «توسعه» و راهبردهای تحقق آن بویژه در نواحی روستایی است. از دههٔ هفتاد، توسعه کشاورزی به‌عنوان مهم‌ترین عامل توسعهٔ روستایی موردتوجه خاص قرار داشت و ازآنجاکه در بسیاری از کشورها کشاورزی تأمین‌کننده اشتغال و معیشت روستاییان بود، قابل‌قبول شد که توسعهٔ کشاورزی بر توسعهٔ روستایی نقش مؤثری داشته و آن را معادل توسعه روستایی می‌نامیدند. دراین‌ارتباط شاید مالتوس(۱۷۸۹) از اولین اقتصاددانانی است که در دیدگاه توسعه‌ای خود، ضرورت توجه به زیرکشت بردن اراضی جدید کشاورزی را یادآور شد. بااین‌وجود تفکر فعلی دربارهٔ نقش کشاورزی در توسعه هنوز شدیداً تحت تأثیر مکتب کلاسیک قرار دارد. «واگذاری اراضی» نیز خود زیر مجموعهٔ اصلاحات ارضی است که به‌عنوان یکی از راهبردهای اقتصادی توسعهٔ روستایی مطرح است. دراین‌ارتباط موضوع واگذاری اراضی با توجه به اهداف آن به‌گونه‌ای مرتبط با ابعاد اقتصادی، اجتماعی و محیطی توسعه پایدار است که در این پژوهش موردتوجه قرارگرفته است.

۳- روش تحقیق

این پژوهش بر اساس هدف کاربردی و از نظر روش، توصیفی- تحلیلی است. شیوهٔ گردآوری اطلاعات کتابخانه‌ای- میدانی بوده و جامعهٔ آماری شامل کشاورزان (۲۶۰ خانوار) و کارشناسان مرتبط با روستا (۳۰ نفر) بوده است. ابزارهای گردآوری اطلاعات فیش‌برداری و پرسشنامه بوده و داده‌ها در نرم‌افزار SPSS و با کاربرد آزمون تی. تک نمونه‌ای تجزیه و تحلیل شده است.

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۴- یافته‌های تحقیق

الف: از دیدگاه کشاورزان

۱- شاخص اجتماعی: در زیرمعیار عدالت گویهٔ کاهش فاصله طبقاتی با میانگین(۳/۱۶) تأثیر زیاد، کاهش اختلافات قومی و مالکیتی با میانگین(۲/۸۲) تأثیر ضعیف و بقیه گویه‌ها و شاخص ترکیبی متوسط‌اند. در زیرمعیار مشارکت، همهٔ گویه‌ها و شاخص ترکیبی نشان‌دهنده تأثیر ضعیف هستند. زیرمعیار مهاجرت به همین منوال و شاخص ترکیبی کل نیز حالت ضعیف دارد. ۲- شاخص محیطی: در زیرمعیار حفاظت آب‌وخاک، میانگین به‌دست‌آمده از تمام گویه‌ها کمتر از حد متوسط و نشان از ضعیف بودن در تمام گویه‌ها به‌جز کاهش تجاوز به زمین‌های ملی و دولتی که در شرایط متوسط قرار دارد، است. از زیرمعیار محیط‌زیست نیز افزایش بهره‌وری از منابع آب‌های زیرزمینی در حالت زیاد و سایر گویه‌ها و شاخص ترکیبی تأثیرگذاری ضعیف دارند. ۳- شاخص اقتصادی: در زیرمعیار اشتغال، تمام گویه‌ها و شاخص ترکیبی حالت ضعیف دارند. زیرمعیار درآمد نیز در همهٔ گویه‌ها و شاخص ترکیبی ضعیف است. از زیرمعیار بهره‌وری و تولید، افزایش استفاده از مکانیزاسیون کشاورزی و کیفیت محصولات، تأثیر خوب و کاربرد شیوه‌های نوین آبیاری و افزایش تولید و شاخص ترکیبی تأثیرگذاری متوسطی دارند. همچنین در زیرمعیار سرمایه‌گذاری، تمام گویه‌ها و شاخص ترکیبی در حالت ضعیف قرار دارند.

ب: از دیدگاه کارشناسان

۱- شاخص اجتماعی: زیرمعیار عدالت، گویهٔ آموزش و ترویج و رعایت حقوق مالکیتی افراد بالاتر از معیار عددی موردنظر اند. سایر گویه‌ها و شاخص ترکیبی متوسط است. در زیرمعیار مشارکت، گویهٔ اشتغال خانوادگی با میانگین(۳/۳۴) و ارتباط با سازمان‌های دولتی با میانگین(۳/۵۲) تأثیر خوب و سایر گویه‌ها و همچنین شاخص ترکیبی ضعیف بوده اند. در زیرمعیار مهاجرت گویهٔ کاهش مهاجرت فصلی در حالت متوسط؛ سایر گویه‌ها و شاخص ترکیبی در حالت ضعیف اند. ۲- شاخص محیطی: زیرمعیار حفاظت آب‌وخاک و کاهش تجاوز به زمین‌های ملی و دولتی با میانگین(۳/۰۰) در حالت متوسط اند. سایر گویه‌ها و شاخص کل در حالت ضعیف قرار دارد. ۳- شاخص اقتصادی: از زیرمعیار اشتغال، گویهٔ ایجاد فرصت‌های شغلی در شرایط متوسط و سایر گویه‌ها و شاخص ترکیبی در شرایط ضعیف قرار دارند. از زیرمعیار درآمد، همهٔ گویه‌ها و شاخص ترکیبی ضعیف اند. از زیرمعیار بهره‌وری و تولید، گویهٔ استفاده از شیوه‌های نوین آبیاری در حالت تأثیر زیاد و سایر گویه‌ها و شاخص ترکیبی متوسط اند. در زیرمعیار سرمایه‌گذاری، همهٔ گویه‌ها و شاخص ترکیبی در حالت متوسط‌اند.

۵- بحث و نتیجه‌گیری

مهمترین معیار جغرافیایی در تعریف روستا ارتباط با محیط و منابع طبیعی و معیشت وابسته به آنها است. در این زمینه از کشاورزی به‌عنوان نماد اصلی اقتصاد روستایی می‌توان نام برد. چنانچه تودارو نیز در تعریف بسیار معروف خود توسعهٔ کشاورزی را زیربنای توسعهٔ روستایی و نتیجتاً ملی می‌داند. از دهه‌های گذشته نواحی روستایی و کشاورزی در کشور کماکان موردتوجه بوده و ازجمله راهبردهای اجرایی آن واگذاری اراضی ملی و دولتی بویژه بعد از انقلاب اسلامی بوده است. اقدامی که موافقان و مخالفانی داشته است. ناحیه روستایی برآآن نیز به‌عنوان یکی از قطب‌های کشاورزی در استان اصفهان، ازجمله نواحی است که راهبرد مذکور در آن اجرایی شد. بااین‌وجود تاکنون کمتر به ارزیابی آثار ناشی از آن توجه شده است. در پژوهش حاضر طرح واگذاری‌های مربوط به بخش کشاورزی از دیدگاه توسعه پایدار روستایی مورد ارزیابی واقع گردید. نتایج برای دو گروه نمونه (کشاورزان و کارشناسان) نشان داد که درمجموع تأثیر واگذاری اراضی منابع ملی و دولتی بر شاخص‌های مختلف اقتصادی، اجتماعی و محیطی بسیار ضعیف بوده و تحقق توسعه پایدار روستایی را در پی نداشته است. بااین‌وجود، در برخی زمینه‌ها مانند کاهش فاصله طبقاتی و عدالت اجتماعی، افزایش بهره‌وری و تولید از دیدگاه دو گروه تأثیر مثبت داشته است.

کلمات کلیدی: واگذاری اراضی، توسعه پایدار روستایی، دهستان‌های برآآن شمالی و جنوبی، اصفهان.

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Investigating Water Conflict Management Strategies among Irrigated Wheat Growers of Doroudzan Dam Network

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Abstract

Purpose- The irrigated wheat farms of Doroudzan District in Marvdasht County, Fars Province face agricultural water deficit challenges due to mis-management of water resources. This research aims at investigating water conflict strategies among the irrigated wheat farms of Doroudzan Dam Network.

Design/methodology/approach- The study was descriptive regarding its nature and used survey research procedure. The statistical population included 803 wheat farmer households residing in Ramjerd 2 and Abarj Dehestans in Doroudzan District. According to Krejcie and Morgan's (1970) sample size table, the samples were 260wheat farmers selected based on simple random sampling technique. Systematic questionnaires were used to collect data by means of face-to-face interviews. The validity of the questionnaire was confirmed by a panel of experts, and a pilot study was also done to assess the reliability of the questionnaire. The estimated Cronbach's alpha coefficients were between the accepted range (i.e. 0.50 - 0.75) for the different measures used in this study.

Findings- Results revealed that the most prevalent conflicts were intra-group conflicts among the counterparts. Verbal conflicts were the current form of water conflicts regarding the conflict intensity in the region. Physical attacks and third party (police) controls were placed in the second and third position. The results of cluster analysis indicated three clusters of farmers; "educated aggressors", "low-literate aggressors" and "peace-oriented farmers". All the clusters were statistically different regarding their demographic characteristics (age and education level), farming-system portfolio (area under cultivation, annual income and cost) and water conflict in response to water shortages. According to the contingency table, collaboration strategy was the prominent conflict management strategy among the three groups followed by compromising strategy .

Research limitations / implications- The lack of institutional support to get information on conflict attacks among the rural residents and the time-consuming nature of the survey study are the most important challenges in this study.

Practical implications-According to the findings, it is of prominent importance to provide the context of problem solving with counterparts. As a result, it needs more attempts to share all the stakeholders' interests to reach a common decision. It seems that reaching a satisfactory solution needs drawing out different parties' expectations to help them get organized through collaboration .

Originality/value- Numerous studies have been carried out on water deficiencies. However, this study is the first in the context of rural settlement and valued based on the analysis of the conflict management strategies among famer groups that has not been addressed in previous studies.

Key words- Conflict Management Strategies, Drought, Shared Water Resources, Wheat Growers, Doroudzan**.**
Paper type- Scientific & Research

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1. Introduction

Among the cereals, ”wheat is one of the strategic commodities needed for human beings and known as the main components of Iranian food diet" (Ghiasi, Hosseini & Hosseini, 2007). In this regard, "as most of the Iranian wheat lands are located in arid and semi-arid regions, wheat production is affected by fierce drought, water deficit and lack of soil moisture" (Ghajar Sepanlou & Siadat, 2000). This fact is worrying when one considers that drought is the climatic reality in Iran (Amirkhani, Chizari & Hosseini, 2012), while the country’s ranking was 14th in terms of water deficit within 116 countries in 1993 (IIMI, 1993).

Fars Province water department faces serious challengesevery year due to irregular rain distribution, drought continuation and ground water harvesting. In particular, Marvdasht County located in Fars Province, the agricultural pole of the country (Fotoohi, 2017), has faced dramatically reducedrainfall and fierce drought. Water department surveys in this country reveals a 10.60 m groundwater drop in a 14-year period from August 2003 to August 2008 and 0.76 m on average (Fars Regional Water Authority, 2015). Over exploitation, groundwater table decline and salinization have seriously occurred in this region which is more fundamental in Doroudzan District, Marvdasht County (Nowzari, 2012). As a result of water deficit and the recent drought challenge, water conflict was duplicated in this district. In fact, water deficit has direct and indirect effects on agriculture and home economics and causes tensions in water resources allocation (Bijani & Hayati, 2011; Hosseinzadeh, Kazemieh, Javadi & Ghafouri, 2013; Rajabihashjin & Arab, 2007). In other words, agricultural water conflict described as disputes and contrasts among stakeholders over an access to common water resources and the disputes over limited water sources may make multi-actor dissonance and even intra-regional conflicts (Bijani & Hayati, 2013; Wolf, 2007).

Therefore, irreversible water resource exploitation with no alternatives (FAO, 1996) not only is the source of conflict among farmers but also makes behavioral tensions among users and related macro-level organizations. At the macro level, water conflict is a term for describing disputes and contrasts over an access to water resources among nations, governments and related groups (Wolf, Natharius, Danielson, Ward & Pender, 1999). It is apparent that conflict management aims to limit and avoid future violence by promoting positive behavioural changes in the parties involved (Hamad, 2005). Disputes over water resources in regions seriously affected by water deficit is regarded as a social difficulty and its management needs great effort of experts and officials.

Obviously, the awareness of intensification or attenuation and the frequency of droughts play an important role in planning to adjust or cope with drought. However, in many countries water conflict management is a multi-organizational function regarding the level of conflict perhaps through the overlap, and intra-organizational competition (between beneficiary organizations) influences the water conflict intensity. Likewise, collective decision making often needs different management approaches. Therefore, identifying conflict management strategies and utilizing the appropriate strategy will lead to suitable management decisions. As better water conflict management among farmers will enhance the equilibrium of water consumption among wheat growers, this study attempts to identify conflict management solutions among wheat growers in Marvdasht Plain.

2. Research Theoretical Literature

It is clear that man affects his environment, but the question is what about the reverse and how the environment affects the human beings. The response depends on the depth of relationship between the environmental threat and the life structure of men, and this relation affects the identification of conflict process caused by environmental shocks and their solutions (Wolf, 2007). In fact, if environmental shocks cause serious damage to the environment, conflict over common resources may arise at the macro level, even it may involve the governments and in the case of less damage, the conflicts would appears to lie in the micro-level calls for easier management.

All in all, water conflict management in agricultural sector involves efficient strategies for minimizing dysfunctional conflicts and maximizing functional conflicts to enhance agricultural productivity although the literature on conflict has not investigated the relation between conflict management and productivity. Most of the available literature in this context refers to Wittfogel (1956). In his fundamental research in the field of conflict, he showed the close relation between the quality of conflict management in society and its dominant

socio-cultural structure. In other words, from his viewpoint the quality of conflict management is closely associated with the culture of each of the society's members and their perception of life structures. As Homer-Dixon (1991) revealed, "the upstream-downstream conflict was situational and would resolve in the case of appropriate strategies over the time". He believes that these conflict patterns would lead to cooperation over time. Postel (1999) noted that conflict management on limited natural resources was depended on the interests of the involved parties, and providing the quality of domestic, agricultural and environmental benefits would resolve micro-level conflicts in the case of appropriate conflict resolution strategies. Some researchers argued that conflict management depends upon conflict type and pattern, its side effects on individuals and parties based on their attitudes and context, and learning how to resolve conflicts (Amason, 1966; Jehn, Neale & Northcraft, 1999; Rahim, 2000). In addition to investigating conflict patterns, a wide literature has focused on conflict management solutions. Much of this literature has focused on different conflict styles to analyze individual conflict management methods and styles.

According to these findings, there are different methods for peacemaking and resolving conflicts to be executed locally or broadly. Apparently, success in common resource management requires the mass participation, achieving information on the nature of inter-individual conflicts, assessing conflict management strategies to solve disputes and problems (Newton & Burgoon, 1990) and complete recognition of the current conflict management strategies (Ndelu, 1998). In a study on conflict management Sillars (1980) revealed three avoidance, competition and collaboration strategies applied by individuals to solve conflicts. Feizi, Shahbahrami & Azhandeh (2011) suggested that non-confrontation, control, and solution orientation are the key approaches to conflict management in organizational settings. According to the principles of the control style, conflicts would be resolved by forcing one's position on an adversary through persistent arguing. In solution orientation style parties discuss on their alternative conflict resolutions using collaboration strategy. The non-confrontation style concentrates on avoiding or smoothing over the discussion of a conflict in a compromising manner. In this style, one party attempts to consider the other's interest irrespective of their own interest. The results revealed by Canary & Spitzberg (1989) and Canary & Cupach (1988) indicated that collaborate approach correlated positively with relative satisfaction of individuals, while competition and avoidance strategies are negatively associated with relative satisfaction. Rahim (1983) identified five styles of handling interpersonal conflict management including avoiding, obliging, dominating, integrating and compromising. Results of another research by Rahim (2000) revealed that conflict management strategies depend on the perception of different interests among people. He showed that conflict management style depends on environmental context, and this context would produce further conflicts. He advocated the need for an integrative (problem-solving) method for managing conflict, while handling avoidance strategy would be ineffective in dealing with conflict.

To sum up the above content, conflict over common water resources relies on incompatible needs, disparities in demands, contradictory intentions, opposite opinions, and or diverse interests of users and stakeholders and would contribute to the formation of interpersonal/group hostility. These conflict situations lead to a range of different behavioral responses from assertive verbal attack to physical assault; in fact, solving these challenges needs varied strategies depending on the social position of the involved parties. Results reveal that according to the socio-psychological approaches and the level of importance of self versus others' interests and also the satisfaction caused by accompanying self-interest, the five strategies of collaboration, compromising, accommodation, avoidance and competition would take place for managing conflicts.

3. Research Methodology

The present study was done in Doroudzan District, Marvdasht County. The county is located 45 kilometers far from Northeastern Shiraz, on a wide fertile plain with the cold climate in the mountainous regions and the mild climate elsewhere. The main surface water resources are Kor, Sivand and Maeen rivers. The average annual temperature in Marvdasht region is about 17.7 degrees Celsius (with the min and max of 11.5 and 23.9 degrees Celsius, respectively). According to of De Marton, the coefficient of atmospheric humidity is 17.8 for the region and the region is classified as

semi-arid in Iran accordingly (Nowzari, 2012). The average annual rainfall is 180 mm and the county is divided into 4 districts of Kamfirouz, Markazi, Doroudzan and Seydan. Doroudzan District with the population of 37836 lying in the mild climate fertile site of 1025 Km2 has the central location. The field study took place in two townships (Dehestans) of Doroudzan District utilizing common water resources. This survey study was cross sectional in nature. The statistical population was the irrigated wheat farmers in Doroudzan District, Marvdasht County, who were almost 3200 based on the statistics made by Marvdasht county's Agri-Jihad Organization in 2016. In the first phase of the research, the population wascategorized into the similar groups. The criteria for categorization was based on Sullivan's (2002) water poverty index in the study area. Likewise, the villages were categorized into five strata, including safe, relatively safe, critically safe, unsafe and extremely unsafe. The wheat farmers of the extremely unsafe stratum were 803 households residing in the villages of Abarj (Hashem Abad, Malicheh, Galezan, and Darehbad) and Remjerd 2 (Ramjerdi, JahanAbad, and Razmanjan) townships (Dehestans). In the second phase, Krejcie and Morgan's (1970) table for determining sample size was used and 260 households were selected randomly as such.

The data gathering instrument was a structured researcher-made questionnaire. The first part of the questionnaire analyzes water conflict management strategies among users (irrigated wheat farmers) of Doroudzan dam network. Rahim's (1983) conflict inventory was also used to make the measures. The inventory is designed to measure five dimensions of handling interpersonal conflict with superior, subordinates and peers, including integrating, obliging, dominating, avoiding, and compromising. The instrument uses self-reports for measuring the styles of handling interpersonal conflict handling styles. The respondents answer each statement on a 5-point Likert scale (very low to very high). The integrating style, also known as problem solving, indicates high concern for self and others. This style involves collaboration between the parties (i.e., openness, exchange of information, and examination of differences to reach a solution acceptable to both parties) and allows everybody to win the situation. The obliging style (known as accommodating) indicates low concern for self and high concern for others. It is associated with emphasizing commonalities to satisfy the concern of the others. The dominating (also known as competing) style indicates high concern for self and low concern for other parties (win–lose orientation). Here the competing person aims to win his or her objective and ignores the needs and expectations of the other parties. The avoiding style (also known as suppression) indicates low concern for self and others. An avoiding person may postpone an issue until a better time, or simply withdraw from a threatening situation. As a result, she fails to satisfy her own concern as well as the other party's concern. The compromising style indicates intermediate concern for self and others. It involves give-and-take or sharing whereby both parties give up something to make a mutually acceptable decision. In this style the person may seek a quick, middle-ground position; therefore, a compromising person gives up more than a dominating but less than an obliging person. The second part of the questionnaire assesses the demographic characteristics of the respondents. After translating the inventory into Farsi and developing it for the Iranian farmers' context, the reliability of the measures was examined in a pilot study and was confirmed by calculating the Cronbach's alpha estimates (0.5-0.75). Data were then processed using SPSS-22 software.

Table 1. Introducing the statistical population and sample size

(Source: Statistics Center of Iran, 2017)

Township (Dehestan)	Village	Number of households	Sample size
Abarj	Hashem Abad	45	14
	Malicheh	36	12
	Galehzan	117	37
	Dareh Abad	259	83
	Sum	457	146
Ramjerd 2	Ramjerdi	105	35
	Jahan Abad	101	33
	Razmanjan	140	46
	Sum	346	114
Total		803	260

4. Research Findings

The demographic characteristics of the sample in terms of age reveals that wheat farmers' average age is 46.28 (SD= 8.62, with the min of 29 and max of 62 years). Of all the respondents, 25 farmers were illiterate, 166 farmers had finished only primary school, 58 farmers had diploma, and 11 farmers had academic degrees of Bachelor of Sciences or lower. The average annual income from the sale of wheat was 45443093.12 (Iranian Rials per ha) with a range from 90453190.48 to 26666666.68 Rials per ha. The average annual harvesting cost was 14796243.86 Rials per ha (with a range from 90453190.48 to 26666666.68 Rials per ha). To investigate water conflict types in the present research, disputes were categorized into three intra-group (famers resided in one village), farmer-organization and inter-group (farmers of different villages) levels (see Table 2). As presented in Table 2, most of the conflicts reported by wheat farmers were related to the intra-group conflicts in comparison with the farmer-organization and inter-group conflicts. This fact shows that most of the conflicts in the study area happened among the neighboring farmers resided in one village ($\bar{x}$ =2.21, SD= 1.07). The coefficient of variation is also estimated to show the priority of this type of conflict in this study.

Table 2. water conflict types among wheat farmers (n=260)

(Source: Research findings, 2019)

Conflict type	Mean*	SD	CV	Rank
Intra-group	2.21	1.07	0.48	1
Farmer-organization	1.18	0.92	0.77	2
Inter-group	0.85	1.13	1.32	3

*The mean range is between 0-4 for the conflict types.

To analyze the type of the water conflict in the present research, the nature of intra-group, farmer-organization and inter-group disputes were investigated. Each of these levels was further analyzed regarding the intensity of conflict, including verbal attack, physical attack, police intervention, dispute resolution council and judicial court intervention. The results presented in Table 3 reveal that almost 39.2 percent of the farmers had a dispute over water with large-scale farmers. This is true while 46.5 percent of the disputes was found between the neighboring farmers. The context of this kind of dispute was common water canals. Likewise, 0.7 percent of the dispute was due to dam water stress; therefore, counter-farmers follow their self interest to promote their own access to water sources for their lands. However, 65.4 percent of the farmers had some dispute with agricultural workers of the neighboring lands. Almost half of the farmers (53.5 percent) had dispute with organizations. The farmer-organization dispute is usually formed between farmers and the water distribution organization, which is the local authority responsible for water delivery. Farmers blame this organization for low discharge rates in canals. Some farmers' (46.9 percent) dispute was due to the process of licensing agreement on deepening their wells at the county's organizational level, 16.2 percent had dispute with provincial Agri-Jihad organization, and 1.9 percent of the dispute was related to other organizational bodies. The inter-group dispute for 16.9 percent of the farmers were farmer-farmer dispute among the residents of adjacent villages. This low number of inter-group dispute was due to dewatering adjacent water canals. Parts of the dispute (20.4 percent) were farmer-nomad disputes. This was due to the invasion of privacy in rural agricultural lands by nomads. Nomads usually use third canals to water their livestock. In fact, 29.2 percent of the farmers had dispute with rural community councils for water right and water supply share. Regarding the intensity of dispute, most of intra-group farmer-large-scale landlords' dispute (81.4 percent) were verbal attacks; 6.9 percent were physical attacks and 11.8 percent were referred to dispute resolution councils. Most of the dispute (89.3 percent) regarding the farmer-adjacent lands was in the form of verbal attacks; 5.8 percent was physical attacks; and 5 percent was referred to dispute resolution councils. 79.1, 14.8 and 6 percent of the farmer-counter farmer dispute was also in the form of

verbal, physical attacks and dispute resolution council interventions, respectively. Furthermore, 54.1, 36.5 and 9.4 percent of farmer-adjacent land farmers were in the form of verbal, physical attacks and dispute resolution council interventions. Most of the farmer-organization's (water distribution organization) dispute was verbal attacks (97.1 percent), while 2.2 percent was physical attacks and 0.7 percent of this type of dispute was referred to resolution council interventions. Farmer-water authority, farmer-Agri-Jihad and farmer-other related organizations dispute were mostly (99.2, 97.6, and 100 percent, respectively) verbally attacks. The inter-group dispute was mostly verbal attacks (90.9, 96.2, 80.3, and 89.4 percent for adjacent village farmers, nomads, rural community councils, and adjacent village residents, respectively). According to the results, verbal attacks was dominant in all types of dispute followed by the intervention of dispute resolution councils.

Table 3. the intensity and type (level) of conflict (n=260)
(Source: Research findings, 2019)

Type (Level) of conflict		Frequency (percent)	Conflict intensity				
			Verbal attack	Physical attack	Police intervention	Dispute Resolution Council	Judicial Court
			n (p)	n (p)	n (p)	n (p)	n (p)
Intra-group	Large-scale farmers	102(39.2)	83(81.4)	7(6.9)	0(0)	12(11.8)	0(0)
	Adjacent farmers	121(46.5)	108(89.3)	7(5.8)	0(0)	6(5.0)	0(0)
	Counter farmers	182(0.70)	144(79.1)	27(14.8)	0(0)	11(6.0)	0(0)
	Agr. workers of adjacent lands	170(65.4)	92(54.1)	62(36.5)	0(0)	16(9.4)	0(0)
Farmer-organization	Regional Water Authority	139(53.5)	135(97.1)	3(2.2)	1(0.7)	0(0)	0(0)
	Water experts of the county	122(46.9)	121(99.2)	0(0)	0(0)	1(0.8)	0(0)
	Provincial Agri-Jihad org.	42(16.2)	40(97.6)	0(0)	0(0)	1(2.4)	0(0)
	All related organizations	5(1.9)	5(100)	0(0)	0(0)	0(0)	0(0)
Inter-group	Farmers of adjacent villages	44(16.9)	40(90.9)	2(4.5)	0(0)	2(4.5)	0(0)
	Nomads	53(20.4)	51(96.2)	0(0)	0(0)	2(3.8)	0(0)
	Village council members	76(29.2)	61(80.3)	2(2.6)	0(0)	13(17.1)	0(0)
	Residents of adjacent villages	47(18.1)	42(89.4)	0(0)	0(0)	5(10.6)	0(0)

To analyze water conflict strategies, Rahim's conflict inventory (Rahim, 1983) was applied to identify five integrating, obliging, dominating, avoiding, and compromising conflict management strategies among wheat farmers. Table 4 shows thatthe integrating conflict strategy was mostly used by respondents to manage water conflicts. Obliging, avoiding and compromising stayed between the second and fourth ranks.

Table 4. The frequency of water conflict management strategies among wheat farmers
(Source: Research findings, 2019)

Conflict management strategies	Frequency	Percent
Integrating (collaboration)	112	43.1
Avoiding	33	12.7
Dominating (competition)	0	0
Obliging (accommodation)	98	37.7
Compromising	17	6.5
Total	260	100

However, the question is that do all wheat farmers equally apply the above-mentioned strategies or different stakeholders use especial conflict management strategy? To analyze water conflict

strategy among wheat farmers, the cluster analysis was used along with a cross-tabulation table.

Cluster analysis is the common term for a wide range of classification methods. In this study, K-mean clustering technique was used. The clustering was based on five variables of age, level of education, the area under cultivation of irrigated wheat, annual income from the sale of wheat, and water conflict. Finally, three clusters of wheat farmers were identified according to the z-scores of each variable. As illustrated in Fig. 1, wheat farmers are categorized into three groups of educated aggressors, low-educated aggressors, and peace-oriented famers.

The first cluster: educated aggressor famers includes the youngest age group and the lowest area under cultivation of wheat, the lowest cost for wheat land and the highest level of education identified with their aggressive relation with their counterparts as compared with the other groups. The cluster contains 68 members of wheat farmers. It seems that conflict is natural in this cluster due to their low level of experience caused by their youngness. In other words, low level of patience and tolerance towards bad times, problems and the crises lead them to make more conflict-promoting attributions and as a result, tend to more water conflict initiation.

The second cluster: low-literate aggressor farmers included 152 members with the highest frequency. The wheat farmers in this category had higher age (average age) but lower level of education as compared with the first cluster. The cost of wheat production was low, because it had more lands under wheat cultivation and lower annual wheat income as compared with the first cluster. However, the members of this cluster reported lower level of conflict.

The third cluster: peace-oriented farmers with 40 members, had desirable status regarding area under wheat cultivation and annual income as well as higher age average compared with the other clusters. Despite their lower level of education, these farmers cost more in wheat cultivation inputs and tend lower level of conflict in comparison with the other groups. This shows that the older farmers in this cluster interact more with their counterparts, participate and compromise in supportive and efficient manners, which leads to a low level of conflict.

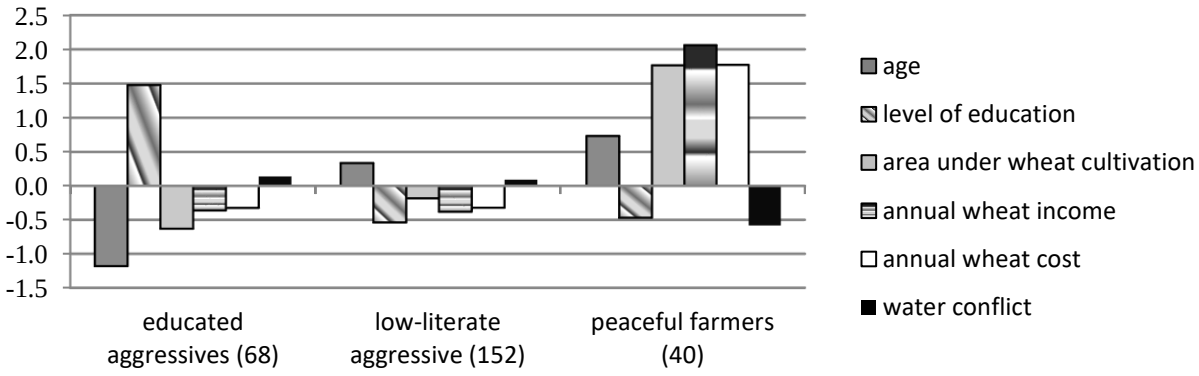

Figure 1. The clusters of wheat farmers
(Source: Research findings, 2019)

After clustering the respondents, the analysis of variance (ANOVA) and Duncan post hoc test were used to compare the resulted groups regarding their attributions. Results are presented in Table 5. The findings in this Table reveal that the clusters are statistically different regarding all the attributes. Wheat farmer groups were statistically different regarding their average age (F=136.71, P<0.01), the peace-oriented farmers had the highest mean ($\bar{x}$=52.6). Results also show that the educated aggressor cluster is significantly different with the other clusters with respect to the level of education (F=448.41, P=0.001). This cluster had the highest average ($\bar{x}$=12.31). Table 5 reveals a significant difference regarding the area under cultivation among the clusters (F=218.72, P=0.001)with the highest mean value occurring in peace-oriented farmers ($\bar{x}$=10.00 ha) followed by low-literate aggressors ($\bar{x}$=5.84 ha) and educated aggressor

clusters ($\bar{x}$=4.88 ha), respectively. However, it shows that the experienced farmers had higher amount of land under cultivation of wheat. There was a statistical difference between both aggressor farmer clusters and peace-oriented farmer cluster (F=443.47, *P*=0.001). The highest income was recorded in peace-oriented cluster ($\bar{x}$=74.5 million Rials, Iranian currency), followed by educated aggressor ($\bar{x}$=40.1 million Rials) and low-literate aggressor clusters ($\bar{x}$=40.08 million Rials), respectively. This was associated with the area under wheat cultivation. Regarding the annual costs, the both of the aggressor clusters were significantly different from peace-oriented farmers (F=173.10, *P*=0.001) with the highest mean value among peace-oriented farmers ($\bar{x}$=23.7 million Rials) and the lowest for the educated aggressors ($\bar{x}$=13.9 million Rials)and low literate aggressors ($\bar{x}$=13.1 million Rials), respectively. The three clusters were significantly different regarding their conflict (F=8.55, *P*=0.001). More conflict was recorded for educated aggressors ($\bar{x}$=4.51), followed by low-literate aggressors ($\bar{x}$=4.42) andpeace-oriented farmers ($\bar{x}$=3.12), respectively.

Table 5. Mean comparison of clusters' attributes
(Source: Research findings, 2019)

Variable	Educated aggressors	Low-literate aggressors	peace-oriented farmers	F-value	Sig.
	*(SD)$\bar{x}$	(SD)$\bar{x}$	(SD)$\bar{x}$		
Age (years)	36.09^{c}(5.15)	49.17^{b}(6.02)	52.60^{a}(7.29)	136.71	0.001
Level of education (years)	12.31^{a}(1.35)	4.48^{b}(1.84)	4.75^{b}(2.43)	448.41	0.001
Area under cultivation of irrigated wheat (ha)	4.88^{c}(1.37)	5.84^{b}(1.30)	10.00^{a}(1.42)	197.65	0.001
Annual income (million Rial/ha)	40.1^{b}(6.9)	40.08^{b}(5.9)	74.5^{a}(8.7)	443.47	0.001
Annual cost (million Rial/ha)	13.9^{b}(2.07)	13.1^{b} (3.0)	23.7^{a}(4.8)	173.10	0.001
Conflict #	4.51^{a}(2.10)	4.42^{a}(1.88)	3.12^{b}(1.30)	8.55	0.001

* Similar alphabets within the row represents non-significant differences at (p<0.05) probability level according to Duncan post hoc test.
# Mean range between 0 and 16.

Results presented in Table 6 show that conflict management strategies applied by educated aggressors were collaboration (n=30, p= 44.1), followed by obliging (n=25, p= 36.8), avoiding (n=10, p= 14.7) and Compromising (n=3, p= 4.4), respectively. Due to the highest level of conflict in this cluster, the collaboration strategy was more dominant. It is clear that the educated respondents attempt to solve their problems satisfactorily. Some of members of this cluster applied obliging strategy as a mild and moderate response for managing conflicts. Table 6 results also reveal that low-literate aggressor respondents mostly used collaboration strategy to manage their conflicts (n=62, p= 40.8). Obliging strategy ranks the second place among the members of this cluster (n=59, p=38.8), followed by avoiding and compromising strategies.

Albeit lower level of conflict among peace-oriented farmers, collaboration strategy was dominant (n=20, p=50), showing that collaboration strategy plays a key role in managing probable conflicts among the members of this cluster. Likewise, obliging (n=14, p=35), avoiding (n=5, p=10) and compromising (n=2, p=5) were placed in the following ranks (see Table 6):

Table 6. The cross-tabulation of conflict management strategies among wheat farmer clusters
(Source: Research findings, 2019)

Clusters		Strategies			
	Collaboration	Avoiding	Obliging	Compromising	Total
	n (%)	n (%)	n (%)	n (%)	n (%)
Educated aggressors	30 (44.1)	10 (14.7)	25 (36.8)	3 (4.4)	68 (100)
Low-literate aggressors	62 (40.8)	19 (12.5)	59 (38.8)	12(7.9)	152 (100)
Peace-oriented farmers	20 (50)	4 (10)	14 (35)	2 (5)	46 (100)
Total	112 (43.1)	33 (12.7)	98 (37.7)	17 (6.5)	260 (100)

5. Discussion and conclusion

Water disaster caused by water deficit stress forces Iranian farmers to apply water resource management mechanisms in a sustainable manner. Water access and use, as one of the important sources of agricultural sector, is the source of conflicts and disputes among the stakeholders of this natural resource. Frequent recent droughts in Marvdasht County in Fars Province caused severe damage to farmers, which often resulted in tensions, disputes and conflicts among farmers. The term conflict has different meanings; however, in this study it implies bothering other parties and disagreeing with them about common resources. Conflicts on common property water resources among wheat farmers represent incompatible needs, different demands, opposing beliefs and or divergent interests of wheat farmers and other stakeholders and cause individual/group hostility and often lead to attacks. These conflict situations lead to different range of behavioral responses from verbal attack to physical violence.

This study aims at investigating water conflict management strategies among Doroudzan Dam Network stakeholders, Marvdasht County. Results revealed that among wheat farmers in the study area, intra-group conflict was dominant in comparison with farmer-organization and inter-group conflict. In these three levels of conflict, verbal attack was dominant, followed by physical attack and a few conflicts intervened in the conflict resolution councils. Few conflicts were in the form of police interventions against conflict parties. The collaboration strategy was the dominant style of water conflict management strategies. Clearly, according to the dominant cultural base of the study area, this was the best strategy to access conflict parties' wants. In addition, participating in information communication leads to appropriate and satisfactory decision among wheat farmers. The obliging, avoiding and compromising strategies also obtained the following ranks. Bijani and Hayati (2011) analyzed water conflict and revealed that farmers strategies used for coping with conflict were avoiding and compromising, while the experts used compromising and accommodating styles. This finding is consistent with our observation. Results by Fayyazi (2010) on the understanding of conflict and conflict management styles in organizations showed that the major conflict management styles by employees were compromising and avoiding styles. Dargahi et al. (2008) in their research on conflict management strategies found that conflict had positive and negative impacts. However, the results of their study were consistent with our observation, showing that collaboration was the dominant style of conflict management.

According to the current results, among wheat farmer clusters (based on demographic characteristics, farming attributes and water conflict), collaboration was the dominant conflict management strategy. Clusters were compared with each other in terms of their demographic characteristics (age, level of education), farming attributes (area under wheat cultivation, annual income, and annual costs) and water conflict. The analysis of variance results revealed that the three clusters of educated aggressors, low- literate aggressors and peace-oriented farmers were significantly different regarding their age, level of education, the area under wheat cultivation, annual income, annual wheat costs, and their water conflicts. The cross-tabulation results showed that the collaboration style had the maximum frequency in all aforementioned clusters with obliging, avoiding, and compromising styles. This result was also consistent with Dargahi et al. (2008)'s findings. To be consistent with wheat farmers' orientation to select win-win collaboration strategy, it is necessary to empower the context to facilitate the empowerment of farmers to use collaboration style to resolve conflicts. It is obvious that reaching a common decision for an appropriate problem solution needs more attempt to carry out the necessary problem solving skills among the counterparts. Such decisions need drawing out the different parties' expectations to help them become organized through collaboration. Hence, it seems that communication of information is a necessity. On the other hand, other motives such as weekly and perhaps monthly joint wheat farmers-related organization meetings not only could play an important role in promoting farmers' social status but also could promote their social mobility and empower farmers to select win-win strategies to solve their problems. However, since the lack of conflict tendency in peace-oriented farmers led to

the stable peaceful environmental situation, it is suggested that meetings be held in the rural mosques by the members of this cluster as well as large-scale farmers. This may extend the collaboration and participation of farmers in solving water conflicts among the youths. Although water conflict can be modified by human reasonable behavior and a balanced action, it seems that water conflict is a permanent environmental feature due to ground water deficiencies. As the wheat farmers' conflict intensity was operationalized as the verbal attacks, it is suggested that some meetings be held to share information, solve problems and communicate solutions. Promoting related organizations' capacity to solve problems and suggesting an immediate response to problematic situations need continued regular and organized relationships as well as timely delivery of information to the stakeholders. Thus, it is suggested that we establish regular weekly/monthly committees composed of the stakeholders and the organizational officials and experts to assist the stakeholders and promote their close relations and also the trust in the proposed solutions regarding water consumption skills in crisis times.

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واکاوی راهبردهای مدیریت تضاد آب در بین گندم‌کاران آبی شبکه آبیاری سدّ درودزن

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چکیده مبسوط

۱. مقدمه

بخش کشاورزی در ایران با کاهش منابع آبی و تشدید تضادهای ناشی از آن در سال‌های اخیر مواجه بوده است. استان فارس نیز به عنوان یکی از قطب‌های مهم کشور در تولید محصول گندم، از پیامدهای بحران کم‌آبی در امان نبوده و تضاد در بین بهره‌برداران منابع آب کشاورزی در این استان نیز فزونی یافته است. از آنجا که مدیریت بهتر تضاد آب در بین کشاورزان، تعادل در مصرف آب در بین بهره‌برداران‌گندم‌کار را به دنبال خواهد داشت، پژوهش حاضر به دنبال شناسایی راه‌کارهای مدیریت تضاد موجود بین بهره‌برداران محصول گندم در دشت مرودشت این استان می‌باشد.

۲. مبانی نظری تحقیق

عمده‌ی پژوهش‌ها در حوزه تضاد ریشه در این دیدگاه دارد که رابطه نزدیکی بین چگونگی مدیریت تضاد در جامعه و ساختار اجتماعی- فرهنگی حاکم بر آن وجود دارد. به عبارت دیگر، نحوه مدیریت تضاد رابطه نزدیکی با فرهنگ تک‌تک افراد جامعه و ادراک آنها در خصوص ساختار زندگی‌شان دارد. به‌طوری که از دید هومر- دیکسون (۱۹۹۱)، تضاد بین بهره‌برداران بالادست و پایین دست موقعیتی بوده و در طول زمان با انتخاب راهبردهای تضاد مناسب توسط طرفین رفع می‌شود. از دید وی، الگوی تضادهای این‌چنینی در گذر زمان و با اعمال راهکارهای مدیریتی به همکاری نیز خواهد انجامید. از دید پستل (۱۹۹۹) نیز مدیریت تضاد بر سر منابع محدود طبیعی وابسته به منافع طرفین درگیر است، به‌طوری که در تضادهای در سطح خرد، این منافع مشتمل بر چگونگی بهره‌مندی خانگی، کشاورزی و محیطی با طرح راهبردهای مناسب توسط طرفین درگیر رفع خواهد شد. برخی محققان (آمیسن، ۱۹۶۶؛ جن و همکاران، ۱۹۹۹؛ رحیم، ۲۰۰۰) مدیریت تضاد را درگرو توجه به نوع و الگوی تضاد، اثرات جانبی تضاد بر افراد و گروه‌ها بر مبنای نوع نگرش و بستری که آنها در آن واقع شده اند، و یادگیری برای رفع تضاد دانسته اند. علاوه بر بررسی الگوهای تضاد، بخش وسیعی از تحقیقات بر راهکارهای مدیریت تضاد متمرکز شده است. بسیاری از این تحقیقات با تمرکز بر سبک‌های مختلف درگیری به بررسی سبک‌ها و شیوه‌های مدیریت تضاد در بین افراد می‌پردازند.

۳. روش تحقیق

در این پژوهش به منظور واکاوی تضاد آبی در بین ذینفعان شبکه آبیاری سدّ درودزن از روش اثباتی یا کمّی در قالب پیمایش استفاده شد. جامعه مورد مطالعه پژوهش حاضر شامل کشاورزان گندمکار آبی بخش درودزن، در دو دهستان رامجرد دو و ابرج است. در این دهستان‌ها وضعیت تضاد آب کشاورزان گندمکار روستاهای واقع در منطقه ناامن از نظر فقر آبی مورد سنجش قرار گرفت. جامعه آماری کشاورزان گندم کار آبی در این روستاها ۸۰۳ نفر بودند که بر اساس جدول کرجسی و مورگان ۱۹۷۰ تعداد ۲۶۰ نفر به عنوان حجم نمونه به صورت طبقه‌ای تصادفی انتخاب شدند. ابزار گردآوری داده‌ها در این پژوهش پرسشنامه محقق ساخته بود که روایی آن توسط کارشناسان و صاحب نظران دانشگاهی مورد تأیید قرار گرفت. یافته‌های آزمون آلفای کرونباخ با دامنه‌ی ۰/۵ تا ۰/۷۵ نشان از پایایی گویه‌ها داشت. داده‌ها با استفاده از نرم‌افزار آماریSPSS22 در محیط ویندوز مورد تحلیل قرار گرفت.

۴. یافته‌های تحقیق

یافته‌های پژوهش حاکی از آن بود که در منطقه مورد مطالعه، بیشتر درگیری‌ها بر سر منابع آب در سطح درون‌گروهی و در بین کشاورزان همتراز رخ داده است. از نظر شدت، نیز غالب کشاورزان به طور لفظی با یکدیگر درگیر بوده و زد و خورد و مراجعه به پاسگاه در رده بعدی قرار گرفته است.

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بر اســـاس یافته‌های حاصـــل از تحلیل خوشـــه‌ای صـــورت گرفته، گندمکاران به سه گروه ستیـــزه‌جویان جوان، ستیزه‌جویان میانسال و صلح‌طلـــبان میانسال تقسیم شدند.

هر سه گروه از نظر ویژگی‌های جمعیت شناختی (سن، میزان تحصیلات)، ویژگی‌های زراعی (سطح زیرکشت، درآمد و هزینه سالانه کشت گندم) و تضاد آب با یکدیگر تفاوت معنی‌داری داشته اند. نتایج جدول توافقی نشان داد که درهر سه گروه حاصل از خوشه‌بندی راهبرد همکاری بیشترین فراوانی را به خود اختصاص داده و در قیاس با سایر راهبردهای مدیریت تضاد در اولویت قرار گرفته است. به عبارت دیگر، گندم‌کاران در هر سه خوشه در مواجهه با تضاد آب، بیشتر راهبرد همکاری و به دنبال آن راهبرد مصالحه را اتخاذ نموده‌اند.

۵. بحث و نتیجه گیری

وقوع خشکسالی‌های اخیر در شهرستان مرودشت استان فارس خسارات متعددی به کشاورزان منطقه وارد نموده که گاهی اوقات باعث درگیری‌های کلامی، تعارض و تضادهای رفتاری بین کشاورزان شده است. هرچند تضاد آب با هدایت و برقراری رفتار منطقی و متعادل بین انسان‌ها تعدیل می‌گردد، اما در حال حاضر به نظر می‌رسد تضاد آب یک بحران دائمی است، زیرا روند کاهشی مخازن آب زیرزمینی ادامه خواهد داشت. از آنجایی که بر اساس یافته‌ها، شدّت تضاد در بین کشاورزان گندم‌کار بیشتر به صورت لفظی می‌باشد، انتظار می‌رود مدیریت تضاد به تعدیل فضای موجود و مدیریت بهتر منابع آبی بینجامد. لذا پیشنهاد می‌گردد از طریق جلسات گفتگو برای به اشتراک‌گذاری اطلاعات، حل مشکلات و تبادل راه حل‌ها همت گمارده شود. همچنین افزایش توانایی سازمان‌های مسئول برای رفع مشکلات و ارائه راه‌حل‌های سریع برای مشکلات منوط به برقراری روابط منظم و مستمر و اطلاع‌رسانی به موقع به مردم و بهره‌برداران است. لذا، توصیه می‌شود کمیته‌هایی از کارشناسان سازمان‌ها و ارگان‌های مربوطه با برگزاری جلسات منظم هفتگی یا ماهانه نسبت به برقراری روابط نزدیک‌تر به بهره‌برداران همت گمارده و با جلب اعتماد آنان، زمینه آموزش مصرف در مواقع بحران را فراهم سازند.

کلمات کلیدی: راهبردهای مدیریت تضـاد، خشـکسـالی، منابع آب مشترک، گندمکاران، درودزن.

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پژوهش حاضـر برگرفته از پایان‌نامه کارشـناسـی ارشـد نویسـنده اول (فاطمه حسـینی‌زاده)، گروه مدیریت توسـعه روسـتایی، دانشـکده کشاورزی، دانشگاه یاسوج، یاسوج، ایران است.

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The Entrepreneurial Marketing Mix in Rural Women's Local and Traditional Art Business

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Abstract

Purpose- Rural women are the carriers of traditional culture and art of Iranian ethnicities inherited naturally and mainly through generations. Iranian rich and native culture can creatively be presented and protected; this can lead the unemployment to be erased, especially in rural areas, while at the same time rural businesses can thrive by promoting the potential of rural entrepreneurial women.

Design/Methodology/Approach- This was a descriptive-analytic study aiming to describe the primary and secondary factors involved in the marketing mix of Iranian local art businesses using a consent-based Likert scale questionnaire developed by Mobaraki et al. (2016). A total of 28 local art entrepreneurs responded to the questionnaire in Tehran and across Iran. The five primary components called 5C including the "networking and communications", "content of local artwork", "creativity", "cultural value" and "artwork creator" and 32 related items were evaluated.

Findings-The reliability of the questionnaire was confirmed with the Cronbach's alpha of 0.94. Data were analyzed by comparing the means of variables using the Friedman test. The most influential subset in the marketing mix of local art businesses was related to the category of the artwork content, composition and harmony. And the impact of other elements was also determined by considering their impact factors through mean comparison using the Friedman test.

Research Limitations & Implications- There were plenty of shortcomings observed in the theoretical foundations of marketing the artworks and traditional arts, while the number of women active in manufacturing marketing traditional arts and participating in the relevant research processes was very limited.

Practical Implications- Relying on the findings of this research and the model presented for the entrepreneurial marketing mix of traditional rural women's arts as well as training, we can expand business establishments active in marketing and also enhance the selling artworks and traditional arts .

Originality/value- The results of this research can be applied in marketing the traditional artworks of Iranian rural women.

Keywords- Marketing mix, Women entrepreneurship, Local and traditional artwork, Rural women.

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1. Introduction

Rural people, especially women, have benefited most from the environmental training and the local cultural unconscious forms, including poetries, storytelling, traditional foods, customs, celebrations, games, and clothing and are currently the carriers of traditional culture and the art of Iranian ethnicities. They seem to be the best people for local art production and distribution. In development programs, efforts are being made to provide the necessary infrastructure for women's development and entrepreneurship and also to encourage them to participate in the labor market. This aims to provide them with an opportunity to set up businesses for themselves and others to solve (or address) the current problems of society (Yaghoubi Farani, Movahedi & Solaimani, 2015).

When talking about the marketing of the products, it is not important how much capital or how many products the business owner has or to what extent he has accomplished the manufacturing process properly; however, if he does not have essential skills to promote his products and pursue his business goals, he will lose opportunities, such skills are called marketing skills (Golabi, Khodadad Hoseini, Yadollahi & Rezvani, 2011).

Recently, a new field of marketing has emerged called "Entrepreneurial Marketing", originated from a strong relationship existing between entrepreneurship and marketing (Hamidizadeh, Gharehche, Ataei & Pashabadi, 2014). Marketing local (native) artworks have many similarities with marketing other artworks, but its privilege is to represent all or part of the country's collective spirit. Many of these works with applications in the everyday life of the past are an integrated achievement for the society obtained from the combination of art and applicability; therefore, marketing them is somewhat different. After massive changes (and/or developments) in the community, these works may no longer be welcomed in the different lifestyles at the present (for daily applications); however, protecting them as part of community culture is essential. Marketing is concerned with identifying social and human needs and providing these needs (Memari, 2009). Therefore, the marketing perspective in this regard is an attempt to maintain the durability of these works in addition to achieving profits.

We are facing with the unemployment of women and/or their inability to sustain successful businesses they have established in rural communities, while today's small and medium businesses play an important role in promoting economy in most developed and developing countries (Golabi et al., 2010). This study, therefore, aims to identify the components and/or factors affecting the marketing of artistic businesses in order to help rural women to produce and supply traditional local and native arts. Although not yet evaluated, we expect the questionnaire (5C) developed by Mobaraki, Rezvani, Yadollahi Farsi & Toghraiee. (2016) for entrepreneurial marketing to be effective. The second purpose of this study is a classification of 32 elements of the entrepreneurial marketing of artwork for local businesses. The factors and components that are in the 5C subgroup, however, are the result of previous research conducted by Mobaraki et al. without any modifications. Research questions include:

1) Which of the 5C categories is more important and effective in marketing local and native artistic businesses established by rural women?

2) Which of the components plays a key role in the marketing of local artworks in each category?

3) Do the questionnaire and the categories specified have a good design for conducting scientific work in this area?

2. Research Theoretical Literature

Marketing basically means paying attention to the customer, and the customer value is the difference between the value of having and consuming a product and the cost paid for it (Kotler & Armstrong, 2009). Entrepreneurs are not usually marketing experts; therefore, they are often not familiar with the vocabulary and foundations of official marketing theory. Lack of knowledge about the market and planning is a common problem in small corporations. Indeed, the definition offered by most owner managers on their marketing is not based on the product, pricing, location, and promotion; they seem to prefer interactive marketing (Martin, 2009). A qualitative definition of entrepreneurial marketing, however, is "a spirit, an orientation, as well as a fervent process of looking for opportunities, and establishing and promoting investments aiming to understand the customer value through relationships by creating innovation, creativity, sales, market flotation, networking and flexibility" (Thomas, Painbéni &

Barton, 2013). The initial efforts in this section have focused on issues related to overlap between conventional marketing theories and people who support entrepreneurship. The link between entrepreneurship and marketing is known as an interesting research goal, especially regarding the behavior of small and medium-sized businesses (Mort, Weerawardena & Liesch, 2012). A major part of entrepreneurial marketing research focuses on the steps before setting up the company. Entrepreneurship marketers have a high potential for prominence by introducing themselves as a brand and also expanding the company's brand (Fillis, 2015). Corporate/traditional marketing (CTM) is described in three dimensions:

- Culture (values and beliefs related to the customer's role in managing the organization)
- Strategy (obtaining a competitive advantage in a particular industry and market context)
- Tactics (methods of using resources and a variety of risk management techniques, for example) (Martin, 2009)

According to Rentschler (1998), there are three main periods in the development of arts marketing: 1) the foundation period (from mid-1970s to mid-1980s) characterized by education of artists and art organizations to apply new concepts; 2) professionalization period (from mid-1980s to mid-1990s), which emphasized that the future of a cultural organization depends on its success on the market (Kolb, 2002); and 3) innovation or discovery period (continued), which emphasizes the processes of differentiating cultural organization resulted from market (Fillis, 2002).

Educational issues, poverty and lack of accountable institutions are among the most important factors causing inappropriate competitive conditions for the creative sectors in developing countries, and addressing them requires a public effort. Funding and financial supports are one of the major barriers to industry development; there is also no stability and/or sustainability in the cultural production value chain. The processes of supplying cultural products through promotion, branding, distribution, and protection of the property rights are often challenging. There is still no proper relationship between art and culture and monetary conditions in these countries; in fact, there is no connection with the market and artists who do not consider their profession as a business (Mobaraki et al., 2016).

The marketing of artistic products is sometimes confronted with controversies; artwork originates from accumulating the creator's thought, creativity, and creativity. In many cases, it can be unique; however, such artworks cannot be marketed due to the value they carry. Indeed, it is not a commodity, especially when carrying the cultural values of the society; therefore, supplying it in the market is more complex. Regarding the asymmetry existing between high and low culture, it can be argued that while above arts are product-centered, famous arts such as Hollywood movies focus on the market (Lange, 2010). Marketing experts deeply believe that arts marketing should recognize its boundaries and its shared elements with the basics of commercial marketing. Matching the company's capabilities and the customers' demands to achieve the goals of both exchange parties is the main ideas of marketing. The main feature of the visual arts marketing is the indirect value of the product, where the contemporary art market is becoming an interesting and stimulating issue for observation and study through the interaction between the actors, the emphasis of information and knowledge, as well as the key role of relationships and networks (Jyrämä & Äyväri, 2010). Ordinary or commercial marketing responds to market demand, while arts marketing focuses more on art than on market behavior. However, there is no fundamental contradiction between the art emphasizing the "genuineness of the work" and the marketing emphasizing "starting from a customer" (Khademi & Parikhani, 2016, Electronic version).

Art entrepreneurs can progress despite the lack of financial resources, formal business education, and training, and thus can achieve major success due to their learning and creativity. Their learning is informal; thus, knowing how they learn their skills and how they play their role in the market via artistic interactions after college experience is interesting (Elliot, Jamal & Cherian, 2018). Iran is a large country with a wide variety of local artworks, many of which have a taste of Iranian, Islamic, traditional and local culture that constitute a part of the Iranian cultural beauty. Hence, protecting these works brings national value although they have inherited unconsciously from the previous generations, often by women who are exposed to the learning of culture and clear and creative ideas. Therefore, women need to be committed to protect the culture and transfer them to the next generations and emphasize self-employment, considering the argument that ethnic art entrepreneurs (as a collective entity) act as cultural adaptation societies.

They also apply variation to invest in cultural assets or use art and culture as a tool for economic development (Elliot et al., 2018). Although women are the main components for improving the economies of the countries, they still face major challenges in reaching their maximum capacity in performing economic activities (Arasti & Tarzamani, 2014).

The emerging questions include:

1) Which of the 5C categories is more important and effective in marketing local and native artistic businesses established by rural women?

2) Which of the components plays a key role in the marketing of local artworks in each category?

3) Do the questionnaire and the categories specified have a good design for conducting scientific work in this area?

Few studies have been conducted on artworks because they are considered to be a valuable art piece not produced for supplying the markets. Native arts, which are a predominant part of local culture or daily tools and devices, are not studied at this level. Further research has been done on the conceptualization of the marketing mix or finding its components. Mobaraki et al. (2016) in their research entitled "designing and explaining the conceptual model of the entrepreneurial marketing mix in creative artistic businesses: a case study of creative industries" examined the process and reason of creating effective convergence in both entrepreneurial marketing and creative artistic business areas using a new and challenging attitude. After discussing with 30 experts, the marketing mix of the creative arts of 5c was determined more effective than 4p. The five primary categories, including the "networking and communications", "content", "creativity", "cultural value" and "artwork creator", are comprised of 32 components. Jahanyan & Salehi (2015) in their mixed-method research entitled "extracting net-based marketing mix components" gained both common and net-based mixes. That is, their research is important because they have identified marketing mix factors in one of the community's newest sectors which has recently gained business owners' attention. In addition, traditional marketing models play an important role in the Internet marketing, but still need to be redefined.

Naeiji, Panahifar & Esfandiari (2017) studied the impact of domestic marketing mix on the entrepreneurial orientation of cultural and sports clubs in their research. They confirmed the impact of strategic rewards, training and development, internal communication, and supreme leadership on entrepreneurial orientation through the intermediary of innovation culture and knowledge management capabilities.

Honarmandsari (2013) in a study entitled "prioritizing the elements of the marketing mix in the Iran's book publishing industry using the integrated service management model provided by Lovelock and Lauren" examined the causes of problems created in the publishing industry from the media marketing perspective, where factors affecting the individuals' tendency to study a book or a production of a publishing house were identified using the Octoploid model of Lovelock and Lauren; the factors were then ranked as follows: 1) product; 2) location and time; 3) process; 4) quality and productivity; 5) individuals; 6) physical evidence; 7) advertising; and 8) price.

Barghi Kazemi, Soory & Mosayebi (2012) in their research entitled "evaluating and ranking the components affecting the rural tourism marketing using the 7Ps of the marketing mix: a case study of Amol, Babol, Babolsar, and Sari", studied the current and optimal situation of rural tourism in the aforementioned cities. After exchanging views with the experts and managers, some similarities in a combination of seven factors were found between the present and optimal situations, while both are of the same importance. The components "advertising" and "respecting" had the greatest influence coefficients.

Chikweche & Fletcher (2012) following a theoretical discussion in the marketing mix confirmed the need for identifying social networks as well as the interaction between customers and firms, which is facilitated by social networks.

In a study on two contemporary Australian painters, Rentschler (2007) provided a model containing three important and influential components including "creativity", "change (feministic)" and "marketing", and concluded that cultural entrepreneurship is created when there is an overlap between these three components.

Bradshaw (2010) conducted a qualitative study on the relationship between art and marketing for art and the impact of art on marketing and concluded that separating these two could not be logical because they are useful and effective only when put together. There were also four categories of artistic marketing, including art application, marketing as art, art as marketing, and marketing interpretation.

Conway & Whitelock (2007) in their research entitled "relationship marketing in computer arts: what is the key to strategic marketing?" examined the marketing dimensions for interactive arts, such as theater and then concluded that providing a clear strategy, which helps end-users, suppliers, regulators, and employees, can be effective for such organizations.

Relationship marketing is a strategic approach and cannot be a short-term solution because relationships need to be developed and maintained over a period of time. Marketing (synonymous with promotion) should be short, probably for art organizations, where marketing should be used to identify organizations that want to communicate and obtain information about the needs of these groups. End-users are not the only group to be considered as "customers" in their requirements, and other shareholders should be considered as well; efforts should be made to create long-term goals that are compatible with the various types of shareholders' needs, through two-way effective relationships. These relationships need to be maintained and developed.

This method is likely to be effective for computer arts (in general) and indeed for all nonprofit organizations, as well as those who pay for the costs and do not necessarily receive these services. Chang & Preece (2018) reviewed important aspects of arts marketing and claimed that the findings were related to the structure of East Asian visual arts market, political effects on these artistic markets, alternative spaces such as art festivals, audience environment, and experience in the museums, and innovations of the new media. Factors affecting the entrepreneurship of rural women were investigated (Yaghoubi Farani et al., 2015). The findings confirmed a significant relationship between personality, economic status and social and cultural conditions of women with their entrepreneurial level, while there was no significant relationship between family status and entrepreneurial level. The economic status, personality and social and cultural status of women were the most effects, respectively. The book "Arts Marketing Strategy" published in 2016 contains the results of research on arts marketing and related analysis in Iran, which has been developed using library and field resources. The preface of the book states: "This is the result of qualitative research with emphasizing the Iranian market, aiming to provide a simple and applicable framework for strategic planning in art markets. Art markets include museums, exhibitions, theaters, cinemas and, of course, artists. Although they are abundant throughout the country, they often have no strategic orientation for marketing and attracting audiences. This can be due to the thinking of some artists and of course marketing activists, where marketing and art are considered as two distinct categories (the former is looking for profit, while the latter try to create beauty and human excellence that is fundamentally different from the mechanistic and profitable marketing spirit. Based on this thought, marketing and art are two parallel lines that can never and should not cross each other, because the existence of one will divert another from its true purpose. The book "Arts Marketing Strategy" seems to aim at correcting this thought"(Karimpoor, 2017).

In conclusion, previous research often focuses on the categories "networking and communications", "content of local artwork", "creativity", "cultural value" and "artwork creator".

3. Research Methodology

An applied, analytical and descriptive study was conducted using the results of the previous research entitled "designing and explaining the conceptual model of entrepreneurial marketing mix in creative artistic business, a case study of creative industries", where a questionnaire consisting of the previous research subgroups with a five-point Likert scale and 32 questions was developed and given to the participants. Twenty-eight individuals responded to the questionnaire. Participants were industrialists who received a high-quality sign in 2013 from the Iranian Cultural Heritage, Handcraft and Tourism Organization (ICHTO), and their information is available on the ICHTO's website. Early studies indicated the greatest variety of artistic products and disciplines existing in Tehran, Isfahan and some of the Iranian western provinces where there is more coherence in sales and marketing. In addition, Kermanshah, West Azerbaijan, Hamadan and Fars provinces were also selected; all of these provinces are outstanding in terms of ethnic diversity and are known as Iranian art industry reserve, including 248 industrialists in total.

Individuals with multiple and repeated high-quality signs, people without a phone number, were unable to respond, having shared business, and those who did not want to participate were excluded from the study. Of a total of 41 remaining participants, only 13 individuals completed the given questionnaire.

The second group of the respondents was the producer artists who had participated in the 11th Exhibition of Women and National Production held at the Tehran Municipality's Specialized Exhibition Center in August 2017. Only specialists in traditional art and marketing were asked to complete the questionnaire to prevent data bias. The validity of the questionnaire was confirmed in previous research conducted by Mobaraki et al. (2016), while its reliability was investigated in this study. The Cronbach's alpha was calculated to be 0.94. The alpha obtained for each question indicates a high level of reliability (See Table 1). The Friedman test in SPSS Statistics was used for analyzing the data and examining the equal priority of a number of dependent variables. At the significant level of less than 0.05, the ranking equality is not acceptable (Momeni & Faeal Ghayoumi, 2011).

Table 1. Cronbach's α value of the 5C scale subcategories
(Source: Research findings, 2018)

Main categories	Subcategories	α value
Networking and communications	Intimacy and establishing personal relationships	0.93
	Intimately and friendly communication with people (customers)	0.94
	Commitment to, interaction with and participation in society and institutions	0.93
	Constant and long-term relationships with customers	0.93
	Word-of-*mouth* (face to face) marketing	0.93
	Attending specialized exhibitions	0.94
	Attending international exhibitions	0.94
	Establishing a personal and emotional relationship between artist and employees	0.94
	Friendly meetings with employees, partners, and customers	0.94
	Providing and improving a new product according to friends and relatives advice(s)	0.94
Content of local artwork	Exiting aesthetic talent	0.93
	Durability and persistence of the goods (artwork)	0.93
	Market attractiveness of the artwork or event	0.93
	Special attention to the design	0.93
	Emotional and entertainment interest supplier	0.93
	Acceptable composition and harmony	0.93
	Pleasurability of the artwork or event	0.93
Creativity	Uniqueness	0.93
	Innovativeness and idea generation	0.93
	Validity and authenticity of the artwork	0.93
	Providing designs and new components	0.93
	New and unknown styles (intactness)	0.93
Cultural value	The extent of influencing the artistic process	0.94
	Spirituality importance (providing symbolic concepts)	0.94
	Historical importance (linking between generations)	0.94
	Originated from local and native culture	0.94
	The product identity and improving national identity	0.94
Artwork creator	The product reputation and attractiveness of the creator	0.93
	Reputation, validity, and reliability of the creator	0.93
	Being a public (not dependent on particular parties)	0.93
	Passion, enthusiasm, and commitment to art and culture	0.94
	Influencing on culture and society	0.94

4. Research Findings

A) Descriptive Findings:

Participants were 13 (46.5%) females and 15 (53.5%) males (aged 25-66) with different

educational levels (27% Diploma, 30.5% Associate Degree, 23% B.C; 8% M.Sc., and 11.5% Ph.D.).

B) Analytical Findings:

The Friedman test was used to analysis the data and examine the equal priority of a number of dependent variables. The results of comparing categories and subcategories are presented in Tables 2 to 6 and Fig. 1.

In the category of "networking and communications", the components of "Intimately and friendly communication with people (customers)" and "Friendly meetings with employees, partners, and customers and its role in the marketing of local artwork" had the greatest and least effect, respectively (see Table 2).

Table 2. Comparing components of the category "networking and communications"
(Source: Research findings, 2018)

Category	Rank	Subcategory	Freidman test result
Networking and communications	9	Intimacy and establishing personal relationships	4.59
	1	Intimately and friendly communication with people (customers)	6.76
	3	Commitment to, interaction with and participation in society and institutions	6.11
	6	Constant and long-term relationships with customers	5.59
	7	Word-of-mouth (face to face) marketing	5.41
	4	Attending specialized exhibitions	5.76
	8	Attending international exhibitions	5.02
	2	Establishing a personal and emotional relationship between artist and employees	6.22
	10	Friendly meetings with employees, partners, and customers	3.89
	5	Providing and improving a new product according to friends and relative's advice(s)	5.65

In the category of "content of local artwork," the components of "acceptable composition and harmony" and "durability and persistence of the goods (artwork)" gained the first and second rankings for effectiveness, respectively (See Table 3).

Table 3. Comparing components of the category "Content of local artwork"
(Source: Research findings, 2018)

Category	Rank	Subcategory	Freidman test result
Content of local artwork	6	Exiting aesthetic talent	3.67
	2	Durability and persistence of the goods (artwork)	4.3
	3	Market attractiveness of the artwork or event	4.28
	4	Special attention to the design	4.11
	7	Emotional and entertainment interest supplier	3.11
	1	Acceptable composition and harmony	4.52
	5	Pleasurability of the artwork or event	4.02

On the other hand, the component of "providing and improving a new product according to friends and relative's advice(s)" had the least effect may be due to the origin of Iranian artworks which are generally traditional.

In the category of "creativity and its role in the marketing of local artwork", the elements of "innovativeness and idea generation" and "providing designs and new components" had the most and least effect, respectively (See Table 4).

Table 4. Comparing components of the category "creativity"
(Source: Research findings, 2018)

Category	Rank	Subcategory	Freidman test result
Creativity	3	Uniqueness	3.04
	1	Innovativeness and idea generation	3.4
	2	Validity and authenticity of the artwork	3.08
	5	Providing designs and new components	2.7
	4	New and unknown styles (intactness)	2.78

In the category of "cultural value", the components "the product identity and improving national identity" and "historical importance (linking between generations)" played the most and the least significant roles, respectively (See Table 5).

Table 5. Comparing components of the category "cultural value"
(Source: Research findings, 2018)

Category	Rank	Subcategory	Freidman test result
Cultural value	4	The extent of influencing the artistic process	2.83
	2	Spirituality importance (providing symbolic concepts)	2.92
	5	Historical importance (linking between generations)	2.75
	3	Originated from local and native culture	2.9
	1	The product identity and improving national identity	3.6

In the category of "artwork creator", the component of "being a public (not dependent on particular parties)" is the most effective feature of the creator in marketing according to the participants (See Table 6).

Table 6. Comparing components of the category "artwork creator"
(Source: Research findings, 2018)

Category	Rank	Subcategory	Freidman test result
Artwork creator	5	The product reputation and attractiveness of the creator	2.06
	4	Reputation, validity, and reliability of the creator	3.02
	1	Being a public (not dependent on particular parties)	3.16
	2	Passion, enthusiasm, and commitment to art and culture	3.16
	3	Influencing on culture and society	3.06

The mean comparison of the 32 components of the marketing local artwork business is shown in Figure 1, where there is a significant difference between the components' mean values. Furthermore, the "artwork" and then the "artwork creator" had the highest mean; while the "networking" has least mean value. Note that the component with the least mean value can be effective when coming with other elements.

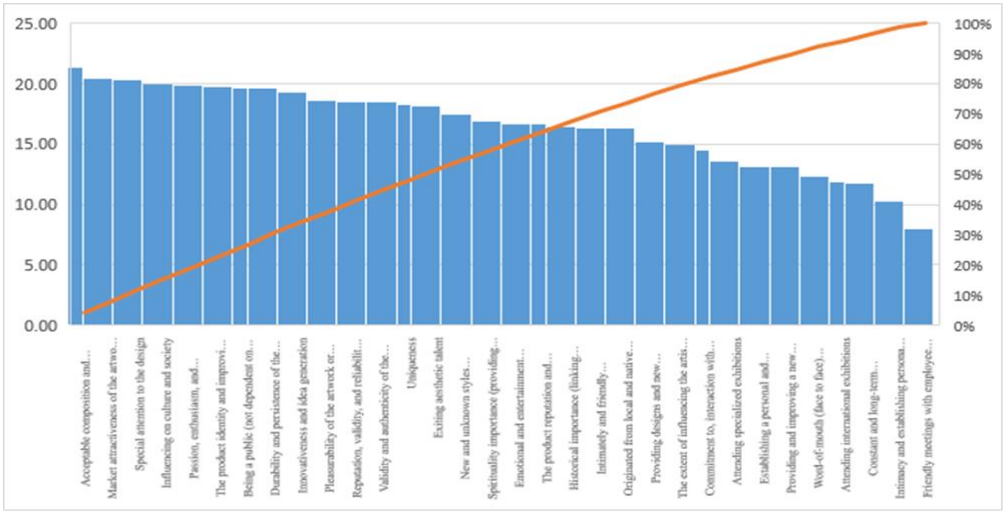

Figure 1. A comparison of 32 components of the marketing mix of local rural women's businesses.
(Source: Research findings, 2018)

5. Discussion and Conclusion

Question 1: Which of the 5C categories is more important and effective in marketing local and native artistic businesses established by rural women?

According to the findings, "acceptable composition and harmony" and "friendly meetings with employees, partners, and customers" gained the highest (20.43) and the least (7.98) mean values, respectively.

Question 2: Which of the components plays a key role in the marketing of local artworks in each category?

The importance of this question lies in the fact that while comparing, some elements may override others, and one should not neglect other elements that are important and effective in some other ways. In categories 1 to 5, the components of "intimately and friendly communication with people (customers)", "acceptable composition and harmony", "innovativeness and idea generation", "the product identity and improving national identity" and "being a public (not dependent on particular parties)" had the greatest effect. However, these components and outcomes should be examined in combination with other less-important categories and components, aiming to create a marketing mix of traditional rural women's art businesses.

Figure 2 helps us understand the proposed corrective framework, because it indicates that more important components should be considered together with other less-important elements. It seems that educating business owners and increasing the level of experiencing national and worldwide markets can increase women's awareness of the necessity of marketing and the correct identification of market trends.

Question 3: Do the questionnaire and the categories in question have a good design for conducting scientific work in this area?

The alpha obtained for each question indicated a high reliability of the questionnaire and the proposed categories. The proposed 5C categories (Mobaraki et al., 2016) seem to be effective in meeting the research needs, because they confirm the results obtained by Mobaraki et al. (2016), Honarmandsari (2013), Conway & Whitelock (2007), Chang & Preece (2018), and Bradshaw (2010).

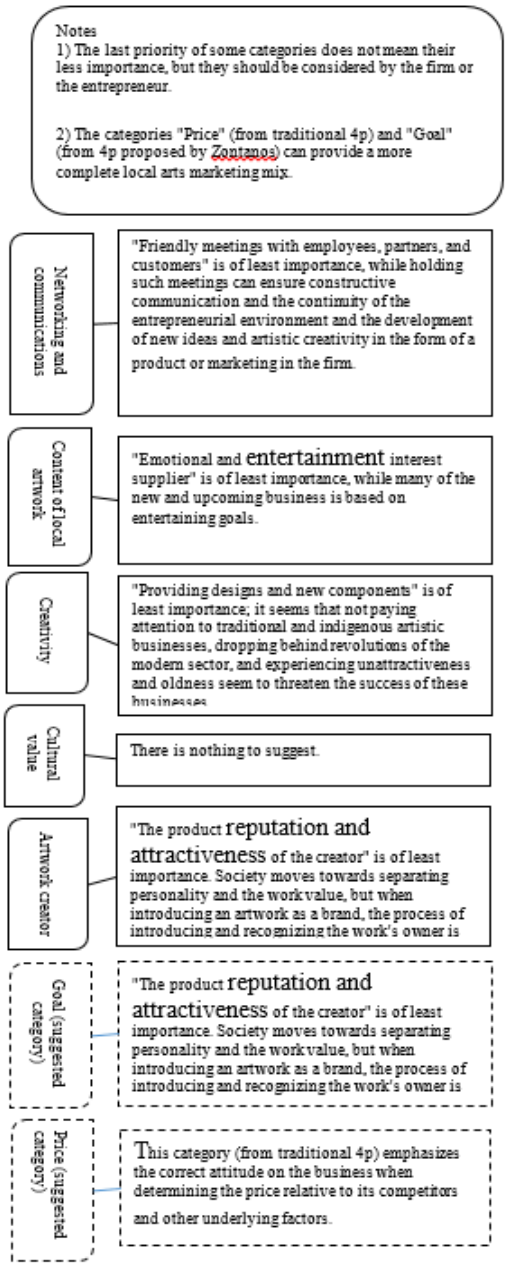

Figure 2. Corrective pattern of the entrepreneurial marketing of local rural women's arts businesses
(Source: Research findings, 2018)

The dimensions of the entrepreneurial marketing of local rural women's art businesses are illustrated in Figure 3, where four main aspects of entrepreneurial marketing (including innovation, value creation, creating an opportunity and risk-taking) have been studied with the corresponding criteria. On the one hand, this figure can help rural women who have learned traditional arts mainly implicitly. On the other hand, it shows that they tend to set up

businesses by providing entrepreneurial dimensions and entrepreneurial marketing.

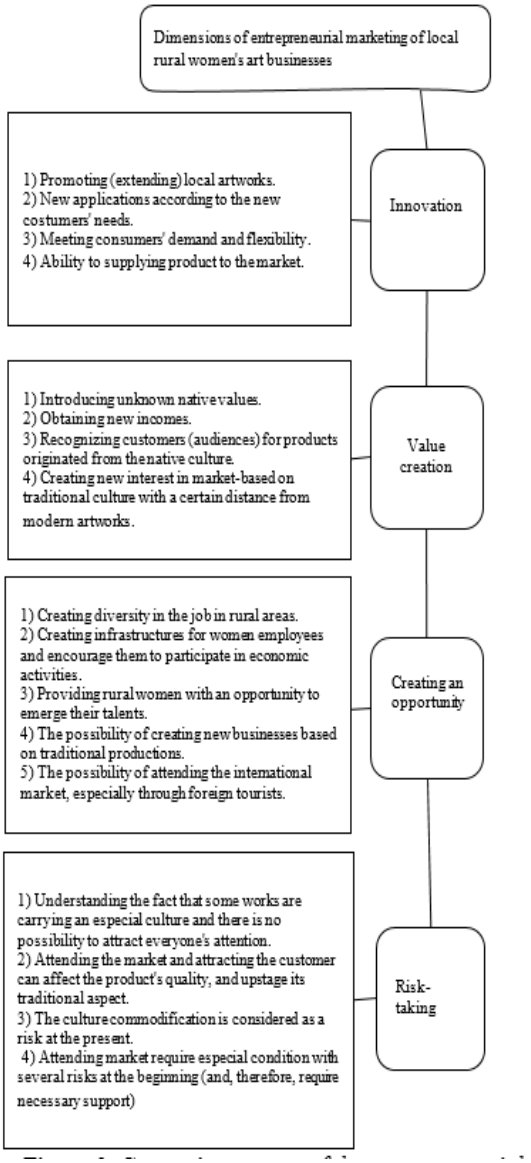

Figure 3. Corrective pattern of the entrepreneurial marketing of local rural women's arts businesses
(Source: Research findings, 2018)

Establishing entrepreneurship training courses and business start-ups and marketing are recommended to improve the marketing knowledge of women active in the production of traditional arts.

Establishing the chamber of guilds focusing on the rural women membership in the provinces throughout the country can promote the level of marketing knowledge in the women participating in traditional art activists.

The ICHTO can hold exhibitions in the provinces to enhance the interaction of rural artist women and their access to new markets in order to achieve jointly experiences.

It is recommended to hold specialized international exhibitions of traditional artworks produced by rural women and ask them to provide a variety of tools, devices and marketing methods and, if possible, attend the exhibitions.

This study can be expanded using several other proposed questionnaires and on a larger number of women active in the marketing of artworks to identify their strengths and weaknesses and also help the entrepreneurship and scientific marketing of artistic works.

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آمیخته بازاریابی کارآفرینانه کسب‌وکارهای هنری، محلی (سنتی) زنان روستایی

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۱. مقدمه

زنان روستایی ایران حاملان فرهنگ و هنر سنتی اقوام ایرانند که تا کنون به صورت طبیعی و عمدتا از نسلی به نسل دیگر به آنها رسیده است؛ این فرهنگ غنی ظرفیت آن‌را دارد تا به شکل خلاقانه‌ای ارایه شود و با تحریک توان زنان کارآفرین روستایی، ضمن رونق‌کسب‌وکارهای روستایی، حفظ فرهنگ بومی ایران و رفع بیکاری، خصوصا در روستاهای محقق شود.

۲. مبانی نظری تحقیق

ایران سرزمینی وسیع است که آثار هنری محلی (بومی) متعدد و متنوعی را دربر دارد؛ بسیاری از این آثار بار فرهنگ ایرانی، اسلامی یا سنتی، محلی بودن را حمل می‌کنند و در عین حال بخشی از زیبایی فرهنگ ایرانی هستند. به این ترتیب حفظ و حراست این آثار شان ملی دارد. اما تاکنون حفظ و انتقال آنها به صورت خودجوش و حتی ناخودآگاه از نسلی به نسل دیگر بوده است. مهم‌ترین عواملی که سبب ایجاد شرایط نامساعد رقابتی برای بخش خلاق در کشورهای در حال توسعه شده است و نیازمند تلاش همگانی برای حل آن است، مسایل آموزش، فقر و نبود نهادهای مسئول است.

بازاریابی درباره محصولات هنری در برگیرنده مسایلی است که گاهی متناقض به نظر می‌رسند؛ آثار هنری ناشی از تجمیع تفکر، خلاقیت و مهارت به وجود آورنده آن است و در بسیاری موارد می‌تواند منحصر به فرد باشد؛ بدیهی است که چنین اثری با ارزشی که حمل می‌کند،جمع‌بندی حاصل از پیشینه این پژوهش نشان می‌دهد که پژوهش‌های قبلی بر روی عواملی در هنرهای مختلف کار کرده‌اند که مقوله‌های «شبکه تماس و قابلیت‌های ارتباطی»؛ «محتوا»؛ «خلاقیت»؛ «ارزش فرهنگی» و «خالق اثر هنری» به خوبی عوامل مورد بررسی سایر پژوهشگران را دربر می‌گیرند.

۳. روش تحقیق

این مقاله از نظر هدف، کاربردی و از نظر روش داده‌پردازی، تحلیلی و توصیفی می‌باشد. پرسشنامه‌ای در طیف پنج‌پاسخی لیکرت در ۳۲ سوال تهیه شده و در اختیار افراد مورد مطالعه قرار گرفت. مجموع تعداد پاسخ‌گویان به ۲۸ نفر می‌رسد و نمونه‌های مورد مطالعه افرادی هستند از بین تعداد بسیار زیاد هنرصنعتگرانی که در سال ۱۳۹۲ از سازمان میراث فرهنگی و گردشگری کشور دارای نشان مرغوبیت بوده‌اند، اطلاعات این افراد بر روی تارنمای سازمان میراث فرهنگی کشور موجود است. معلوم شد که استان‌های تهران، اصفهان قبل استان‌های کرمانشاه، آذربایجان غربی، همدان و فارس داری تنوع بیشتری از محصولات و رشته‌های هنری بوده از نظر تنوع قومی سرآمد و از ذخیره‌گاه‌های هنرصنعت ایران و در امر فروش و بازاریابی انسجام بیشتری دارند. روایی این پرسشنامه در تحقیقات قبلی و طی فرایند انجام آن به تایید صائب‌نظران این حوزه رسیده بود اما پایایی آن در همین بررسی و به وسیله آلفای کرونباخ مورد سنجش قرارگرفته و مقدار قابل توجه ۰/۹۴ به دست آمد. آلفای به‌دست آمده برای هر سوال نیز سطح بالای پایایی را می‌رساند.

روش مناسب برای تحلیل داده‌های این تحقیق با توجه به نوع داده‌ها و اهداف تحقیق، از بین روش‌های ناپارامتریک موجود و مناسب برای مقایسه میانگین‌ها، روش فریدمن انتخاب و انجام شد. از آزمون فریدمن برای بررسی یکسان بودن اولویت‌بندی (رتبه‌بندی) تعدادی از متغیرهای وابسته توسط افراد استفاده می‌شود و برای داده‌های زیر سی مورد مناسب است. در صورتی که sig کمتر از ۰/۰۵ باشد، ادعای یکسان بودن رتبه پذیرفته نمی‌شود.

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۴. یافته‌های تحقیق

در نمودار(۱) که از مقایسه میانگین عناصر سی و دوگانه بازاریابی آثار کسب‌وکارهای هنری محلی به دست آمده است، به خوبی نشان داده شده که اولا تفاوت معنی‌داری بین میانگین‌های عناصر وجود دارد، دیگر این که بالاترین میانگین‌ها به ویژگی‌های اثر هنری سپس خالق اثر مربوط است. از طرفی کمترین مقادیر میانگین هم در گروه شبکه تماس قرار دارند. نکته قابل توجه این که میانگین کمترین مقدار در شرایطی است که می‌تواند به عنوان یک عنصر موثر در کنار دیگر عناصر هم‌چنان از کارایی و تاثیر برخوردار باشد.

۵. بحث و نتیجه گیری

در پاسخ به این سوال که: کدام یک از مقوله‌های 5C پیشنهادی، برای بازاریابی آثار کسب‌وکارهای هنری محلی، بومی زنان روستایی مهم و موثرتر است؟

یافته‌های این تحقیق نشان داد: داشتن ترکیب‌بندی و هارمونی مناسب با میانگین۲۰/۴۳ دارای بالاترین مرتبه در بین زیرمجموعه‌ها است و در مقابل، عنصر جلسات و محافل دوستانه با کارکنان، شرکا و مشتریان با میانگین ۷/۹۸ کمترین مقدار میانگین را دارد.

سوال دوم: در هر مقوله کدام عنصر نقش کلیدی یا اصلی را در بازاریابی آثار کسب‌وکارهای هنری، محلی، بومی ایفا می‌نماید؟ در مقوله نخست که شبکه تماس شخصی و قابلیت‌های ارتباطی است، مهم‌ترین عنصر در آمیخته بازاریابی از نظر پاسخ‌گویان داشتن ارتباط صمیمی و دوستانه با مردم(مشتریان) است؛ در مقوله دوم یعنی محتوای اثر هنری محلی، ترکیب‌بندی و هارمونی مناسب در درجه اول اهمیت قرار می‌گیرد؛ مقوله سوم یعنی خلاقیت، نوآورانه و ایده‌گرا بودن بالاترین اهمیت را دارد؛ ارزش فرهنگی اثر هنری مقوله چهارم است، در این مقوله هویت اثر و تقویت هویت ملی دارای بیشترین تاثیر می‌باشد، از عناصر مقوله خالق اثر هنری، مردمی‌بودن صاحب اثر، پررنگ‌ترین عنصر دیده شده است. حال باید این عناصر و نتایج به دست آمده را درکنار مقوله‌های دیده نشده و عناصر کمتر دیده شده قرار داد تا بتوان چارجوب آمیخته بازاریابی آثار کسب‌وکارهای هنری سنتی زنان روستایی را تشکیل داد. به نظر می‌رسد که آموزش صاحبان کسب‌وکارها و افزایش سطح تجربیات حضور در بازارهای وسیع ملی و جهانی در افزایش آگاهی آنان از ضرورت‌های بازاریابی و تشخیص صحیح روند بازار موثر است.

پرسش سوم: آیا پرسشنامه و مقوله‌های تعیین شده در آن از طراحی مناسبی برای انجام کارهای علمی در این زمینه برخوردار است؟ آلفای به‌دست آمده از تحلیل پرسشنامه و مقدار بسیار بالای نتایج مربوط به هر پرسش و مقدار آلفای کرونباخ کلی پرسشنامه موید مناسب بودن این پرسشنامه و مقوله‌های پیشنهادی آن است. بنابراین به‌نظر می‌رسد که 5C پیشنهادی مقاله مزبور (مبارکی و همکاران) قادر به پاسخ‌گویی به نیازهای تحقیقاتی موجود در این زمینه می‌باشد و نتایج مبارکی و همکاران (۱۳۹۵)، هنرمندساری(۱۳۹۲)، کانوی و وایتلاک (۲۰۰۷)، چلنگ و پریس (۲۰۱۸) و برادشاو (۲۰۱۰) را مورد تایید قرار می‌دهد.

کلمات کلیدی: آمیخته‌بازاریابی، کارآفرینی، هنر محلی(سنتی)، زنان روستایی.

تشکر و قدرانی

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Investigating the Causes and Factors affecting the Improvement of Rural Housing Quality (Case Study: Oraman District, Sarvabad County)

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Abstract

Purpose- The purpose of the present study was to investigate the causes and factors affecting the improvement of rural housing quality (case study: Oraman District, Sarvabad County).

Design/methodology/approach- The present study is an applied research in terms of purpose and has a descriptive-analytical nature. Also, in terms of data collection method, it is a documentary-survey research. In the present study, the quality of rural housing was assessed to evaluate the effective factors in improving the quality of rural housing using the relevant indicators. The statistical population of the study was the Oraman District with 2468 households. The samples of the study were selected by simple random method, and the sample size of 345 households was obtained using the Cochran sampling formula.

Finding- The results showed that the economic, physical, social and management factors (P <0.000) are effective in improving the quality of housing in Oraman villages. Also, according to the rating level of the indices, the physical dimension with the mean rating of (3.91) has the highest effect and the management dimension with the mean rating of (1.00) has the lowest effect.

Research limitations/implications- Due to the low cooperation of local people and the cultural, ethnic and political sensitivities in the region, this study encountered numerous limitations and difficulties during the distribution of the questionnaire which challenged the research work.

Originality / value- The earthquake happened in Western Iran destroyed many homes and killed many people, emphasizing the importance and quality of housing. Given that there has been no research on housing, especially its quality in this area, therefore, investigating the factors contributing to the improvement of housing quality in the future can reduce many of the human and financial losses.

Key words- Housing quality, Rural housing, Social participation, Oraman villages.
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1. Introduction

Paying attention to the development of rural settlements is a central and irrefutable necessity for the regional and national development in every country, because there is a crucial link between rural and urban development. Without considering this link, the regional and national development will not be successful. The development of rural settlements is a dynamic and continuous process where besides the economic aspects (income, production, consumption, employment, etc.), the non-economic aspects have been highly suggested and emphasized by experts. Among the most important suggestions are the recognition of capabilities of rural settlements with special focus on dealing with the natural environment and the serious attention to the main and full dimensions of the rural environment in the studies and planning (Saeedi & Amini, 2010).

Housing is one of the most important sectors of development in a society, because its broad economic, social, cultural, environmental, and physical dimensions have significant effects on the provision of features and public image in the general sense. On the one hand, the economic and social importance has made the housing sector the focus of public attention and, on the other hand, because of the job creation and relationship with many other economic sectors, this sector is considered an appropriate tool for the realization of economic policies (Seifoddini, Ziari & Azimi, 2013).

In addition, the proper planning for the housing sector in developing countries is of great importance for many reasons. One of the most important reasons is that the housing sector accounts for about 5% of GDP and 20% of total investment in these countries. Therefore, the proper planning is essential owing to the long-term nature of housing investment. Housing is more than just a physical shelter and includes all the public services and facilities necessary for human well-being and should provide the occupant with a relatively long tenure. Housing is of great importance to the extent that it is currently one of the development indicators along with the literacy rate, economic per capita income, and so on (Sartipipour, 2007).

Therefore, given the high importance of housing from different economic, social, cultural and even political dimensions, it is evident that explaining the dimensions of housing quality plays an important role in further understanding the housing quality. Since housing is one of the important dimensions in the study of quality of life, identifying the housing quality levels in the rural areas is certainly an effective step in explaining the life quality levels and the sense of satisfaction of residents. Also, as the rural areas in Oraman are different from most rural areas in the country, providing the housing quality is one of the main goals in the housing programs of developed countries. In Iran, the quality of housing is considered an important challenge; therefore, paying attention to the qualitative dimensions along with addressing the quantitative aspects of meeting the housing needs should become an essential component of housing programs. Thus, it seems that attention to housing quality, especially in rural areas of Oraman, according to the climate and architecture conditions is a concept that shows how human needs are met, and it is also a criterion for the perception of satisfaction or dissatisfaction of individuals and groups with the housing quality with regard to different aspects of life. Anyway, everyone has somehow emphasized certain aspects of housing quality that are often relevant, and has chosen a flexible tool to assess the housing quality that is applicable to all types of architecture, climate and place. However, it should be acknowledged that improving the housing quality in the Oraman region is strongly influenced by the architecture and climate. To this end, the main purpose of this study is to investigate the causes and factors affecting the improvement of rural housing quality in Oraman District, Sarvabad County, and that what factors affect the improvement of rural housing quality (in terms of economic, social, physical and management indices) in Oraman District.

2. Research Theoretical Literature

Housing has a broad and complex concept (Maleki & Sheikhi, 2009). It is very difficult to grasp its concept using a comprehensive definition, as it is a concept in the field of housing of the societies with their own social and spatial environments including various forms of different homes, styles, and architectural designs (Maliene & Malys, 2008). It is an essential environment for family life, a place to rest from work, school, and a private space, as well as being filled with cryptic values as a sign of dignity and interpretation of life; it is an essential element of the sociability of people in the world and a place for ideological goals. In fact, its general definition is not a residential unit, but the whole

residential environment. In other words, it is more than just a physical shelter, encompassing all public services and facilities for human life, and it should provide the user with a relatively long and secure tenure (Majidi, 2012). Housing is one of the most important constituents of rural texture which is affected by natural and human factors, and hence, any change in natural and human conditions is manifested in housing in different ways. Therefore, serious attention to rural housing is required in rural development programs, because it is one of the indicators of rural development. Hence, given the high importance of housing in different economic, social, cultural and even political dimensions, it is evident that the description of housing quality dimensions has a great role in understanding its quality (Seifoddini et al., 2013).

Therefore, multidimensionality is one of the basic and fundamental characteristics of quality of life. Most scholars and experts in this field believe that quality of life has physical, social, psychological, environmental and economic dimensions. The physical dimension interprets and assesses the questions about human physical dimensions, including strength, energy and ability to perform daily activities and self-care, as well as symptoms of diseases, such as pain. The social dimension explains the feeling of being better and the quality of communication with family, friends, co-workers and community. However, in the psychological dimension, most of the psychological symptoms such as anxiety, depression, fear and relative deprivation are measured. In the environmental dimension, the quality of the human living environment is analyzed, and from the economic dimension, the components such as the satisfaction with income, job type or job satisfaction are evaluated (Dehdari, 2001).

Rural development originates from various factors; one of the factors is the adequate housing that has been closely examined in the socio-economic and spatial studies by planners, especially the rural actors; notably, if the housing issue has a quantitative approach in the process of implementing development plans (Lotfi, Ahmadi & Hoseinzadeh Farjood, 2009). Housing is the smallest form of physical embodiment of human-environment interaction and the spatial manifestation is the vital function of human habitation in playing its essential roles. In addition to the home space, housing encompasses the entire living environment and its quality appeals to the users in many respects. Housing ownership and quality brings about family comfort and well-being, contributes to economic growth, increases household wealth, enhances social status, reduces social harms and disorders, encourages civic engagement and stabilize neighborhood. Therefore, in the scientific literature of the world, housing pursues some goals, including quantitative goals. The emphasis of these goals on the quantity of housing units that need to be built during the planning period and distributing the coverage of the goal, and that what social groups are included are of great importance; qualitative goals: Improving the quality in the construction of durable buildings, improving basic indicators, enhancing the existing per capita and directing the housing production to the smaller floor area along with a better quality have a special place in overall housing goals (Feghhi Farahmand, 2009). In general, housing quality in research depends on the options such as optimal housing form, housing strength, security, safety, comfort and accessibility of residents to facilities, the equipment and facilities (infrastructure) needed for housing and so on. These options are interconnected and all contribute to improving the quality of housing. An important point in the concept of housing quality is that, in addition to being a shelter and a place that provides numerous social services and facilities, it also has a physical structure (Arjmandnia, 2001). High-quality housing protects residents from contagious diseases, and the impact of housing quality on health is so significant that the deprivation is an important factor in the life cycle and has negative consequences for future health of people. It should be noted that the quality of housing in terms of impact on health, safety and living conditions is linked to the affordability and income of people and affects the welfare of people (Maleki, 2011). Hence, in the scientific literature of the world, housing pursues the following goals:

Quantitative goals: The emphasis of the goals on the quantity of housing units that need to be built during the planning period and distributing the coverage of the goal, and that what social groups are included are of great importance.

Qualitative goals: Improving the quality in the construction of durable buildings, improving basic indicators, enhancing the existing per capita and directing the housing production to the smaller floor area along with a better quality have a special place in overall housing goals (Feghhi Farahmand, 2009).

Bayat (2017) analyzed the effects of housing poverty on the quality of life of rural households in the case study of Mojezat, Zanjan County. The findings of the study showed that the poor health status, facilities and welfare related to housing poverty were evaluated more than average conditions. This difference was significant at the 0.001 alpha and the difference from cardinal utility was positively evaluated and estimated. Also, taking a look at the β coefficients, it is clear that a unit change in the standard deviation of housing poverty (security, health, facilities, building strength, and housing welfare) had a moderately positive effect on the quality of life of the households in the study villages. Therefore, the greatest impact of housing poverty dimensions was related to the building strength.

Anabestani & Mahmoudi (2017) investigated the effect of quality of life of villagers on the quality improvement of rural housing (in Shandiz District, Binalood County). The results showed that among ten variables of quality of life included in the regression test, five indicators, namely economic justice, individual well-being, access satisfaction, environmental quality, and housing, were included in the model and explained 46% of the changes related to the dependent variable. Given the significance level obtained for the model, which is less than 0.05, the model is significant and the research hypothesis is proved. Among the indices of quality of life, the economic justice had the greatest impact on the changes in rural housing quality. In a study, Mohammadi Yeganeh, Cheraghi, Abbasi & Samadi (2016) evaluated the effects of housing quality on the vitality of rural settlements of Khavmirabad, Marivan County. The results of the study indicated that the level of economic, political, vitality and housing quality dimensions is lower than average. This difference was significant at the alpha level of 0.001 and the difference from the cardinal utility was evaluated as negative. The results also showed that the highest impact of housing quality occurs on the social dimension with beta coefficient of 0.570 and the lowest on the economic dimension with beta coefficient of 0.077.

Ebrahimzadeh & Ghadermarzi (2015) analytically studied the housing quality of urban neighborhoods and proposed a strategy to improve the quality of life of citizens in the case study of Dehgolan Neighborhoods. The results of the analysis showed the inequality and significant difference between Dehgolan Neighborhoods; therefore, in the final housing index only 27.3% of neighborhoods are in a desirable condition and 36.3% of neighborhoods are in poor condition and need empowerment. There was also a significant difference in housing status in the old and newly established neighborhoods, which is caused by the instability and poor quality of old neighborhoods. In a paper titled Rural Housing Quality Assessment, a Strategy to Improve Quality of Life, Ahadnejad Roshti & Hosseini (2013) investigated the quantitative and qualitative housing indicators in the rural areas of Zanjan. The results showed that in addition to the low quality of housing in rural areas of Zanjan, there is a significant difference between the quality of housing in urban areas. Shakouri & Asgari (2012) evaluated the performance of rural housing programs and their effects on the quality of rural construction in the fourth development plan. The evaluation results showed the good effectiveness in the area of the issue of certificate, rural technical system, improvement and repair facilities and the poor performance in education of local builders and architects.

In a study, Mohammadi Yeganeh, Cheraghi, Abbasi & Tarasi (2012) investigated the role of housing improvement credits on improving the quality of life in rural areas of Zanjan. The obtained results showed that the received credits have the greatest effect on the physical dimensions and the lowest effect on the economic dimension and its indices. Mastern (2014) explored the housing status, housing quality segmentation in the study areas, and quality criteria in favorable human settlements and concluded that the housing status in the mentioned studies does not have a good quality, and the required standards in terms of tectonic features, architecture, building materials, population densities and extent of physical environment, role and function of area, network of roads, etc. should be considered in the housing design to prevent natural disasters and improve the rural housing status. It is also necessary to implement the rural housing master plan and create a hierarchical and categorized list of quality criteria in desirable human settlements based on expert analysis and appropriate construction technology in compliance with the safety of buildings.

In a paper titled 2000 Rural Welfare Vitality Assessment Indices, Etuck (2012) investigated the rural welfare indices based on the framework presented by the Ford Foundation. At the end of this work, he classified the residential units in the area

according to the vitality and stated that the vitality components should first be carefully identified in order to determine the vital communities. In a paper titled Housing Quality and Housing Provision for Low-Income Housing Groups in Ibadan, Nigeria & Emanoel (2012) investigated the housing indices of low-income groups in a quantitative and qualitative manner, and the results propose the change in the social totality approach for improving the low-income housing quality to enhance the quality of life in urban areas. Zainal et al. (2012) examined the relationship between housing conditions and quality of life of urban low-income people in Malaysia. This study evaluated the housing conditions and indices, including the physical structure of housing, occupancy, housing welfare and services facilities, and health and safety of housing in Malaysia. The results showed the significant relationship between housing quality and quality of life.

In a study titled Rural Community Vitality, Case Study: Fort Benton, Montana, and Watford City, North Dakota & Husar (2011.B) attempted to gain a better understanding of rural community vitality, and the results suggested the clear relationship between the population changes and the community vitality. This study also provided a conceptual framework to better understand the people in order to assess the vitality of rural communities. Rangwala (1998) believes that inadequate housing leads to the spread of diseases, disorder, depravity, and lack of well-being of the youth, and therefore, inadequate housing can pose various social and cultural problems in the society. Parasuraman (1994) described housing quality as sustainable compatibility with the expectations of users and identification of their expectations of specific services. He also described the housing quality as the amount of difference between the rational expectations of users and their perceptions of performance. According to Liabnda (2001), in the physical development of rural settlements, in addition to observing the processes of sustainable development, the government agencies and organizations should always be in line with the culture and traditions of an area, which encompasses the customs and national identity of the area , implements the functional and structural policies of their programs for the expansion and physical sustainability of rural settlements, creates equal opportunities in rural areas, and improves the structural quality of life of villagers.

Edwards & Turret (2002) believe that the important factors for the sustainability of rural housing are: 1) conservation of natural resources (land, energy, water), 2) rational use of human resources, 3) preservation of ecosystems and their restoration potentials, 4) Fairness in products, humans and categories, 5) Prediction of health, safety and security.

Oddershede (2007) believes that the lack of understanding of differences in rural housing in terms of alignment and overlap with other economic activities and social trends and its profound impact on the employment and welfare process of rural communities have a great effect on the overall planning system of the country and have created various social, economic and physical consequences and tensions. Therefore, in recent decades the understanding of the rural construction and development has been considered one of the main examples of development in most Third World countries, especially in Iran. Eben Saleh (2001) considers one of the major problems of the new rural housing as the incompatibility of the housing with cultural and economic characteristics and attributes part of the existing cultural and economic losses to this problem. Tress & Tress (2003) also believe that industrialization and the introduction of new materials have led rural housing to depart from its old indigenous nature. Moini (2008) believes that sustainable housing should be ecologically adequate and that the energy and materials should be efficiently used. From an economic point of view, it should increase individual satisfaction and decrease indirect costs such as transportation, etc. and should socially provide mental characteristics and personal comfort.

Based on the mentioned literature review, it can be stated that this study examines the causes and factors affecting the improvement of housing quality from the economic, social, physical and management aspects, while in the previous research introduced as the background, the issues such as the effects of housing poverty on the quality of life of households, quality of life of villagers, effects of housing quality on the vitality of rural settlements, evaluation of rural housing quality, effects of housing improvement credits on improved quality of life, housing conditions, and quality of life of villagers are presented. The evaluation of most of the indices in these studies shows the extent the considered factors can improve the quality of life and vitality of rural households. In other words, the

indices explored in the research background are quite distinct from the indices of this study, because this study seeks to investigate the causes and factors of the indices in improving the quality of housing, but the research background explores how these causes can be managed to improve the quality of housing.

The housing indicators are one of the most important and key tools in housing planning, because they are explored as one of the ways to identify housing characteristics to help determine effective housing parameters and facilitate any proper planning and decision making on housing (Arjmandnia, 2001). One of the most effective and useful tools is the use of indicators for assessing the quality of rural housing. To date, various indicators on housing quality assessment have been presented in various studies (Habibi & Ahari, 2004). For example, in the US and UK, the quality of residential projects is evaluated with the indicators shown in Table 1.

Table 1. Indicators for evaluation of quality of residential projects in US and UK
(Source: Anabestani & Mahmoudi (2017)

Housing quality standards in US	Facilities and health conditions, food preparation and waste disposal, space and safety, heating, lighting and electricity, structures and materials, indoor air quality, tap water, lead paints, accessibility, location, adjacency and neighborhood
Housing quality standards in UK	Location, visual impact, collection and landscape arrangement, site, outdoor, site, roads and travels, residential unit size, spatial arrangement of residential unit, noise, lighting and services of residential units, residential unit access, energy, green space and sustainability issues of residential unit, procedure in use

Therefore, in recent decades, attention to the physical properties of housing has become one of the most important issues in the qualitative studies of housing. The qualitative studies on the efficiency of the physical components of housing and the structural efficiency under various factors form the basis for formulating the policies and practical guidelines for the physical improvement of housing.

3. Research Methodology

3.1 Geographical Scope of the Research

This section deals with the features of the study area. Table 2 shows the demographic characteristics of the area.

Table 2. Demographic characteristics of area
(Source: Research findings, 2018)

Population of Villages	Male	Female	Total
Oraman Takht	1366	1395	2761
Sarpir	382	363	745
Rivari	208	211	419
Kamaleh	338	328	666

Oraman or Huraman Takht is located in the Oraman District of Sarvabad County in Kurdistan Province of Iran. Oramanat Takht is located in an east-west valley on a steep slope on the opposite side of "Takht" mountain. The homes are generally made of dry stone in a stepped form, and this is why it is also called "Hezar Masouleh". According to the belief of people, Oraman was once a big city and had a special centrality, and thus it was referred to as the Takht (throne) or center (government) of Oraman region. Oraman is a district of Sarvabad County with the area of 217 km^2. This district is adjacent from north to Dezli, from east to Robab, from south east to Jerijeh and from west and south west to Paveh county in Kermanshah Province and to Kamyaran County, respectively. This district is inhabited by the population of 9543 people and 2468 households with two rural areas called Oraman Takht and Shalyar and a city called Oraman Takht, 12 inhabited villages and 2 uninhabited villages (see Figure 1).

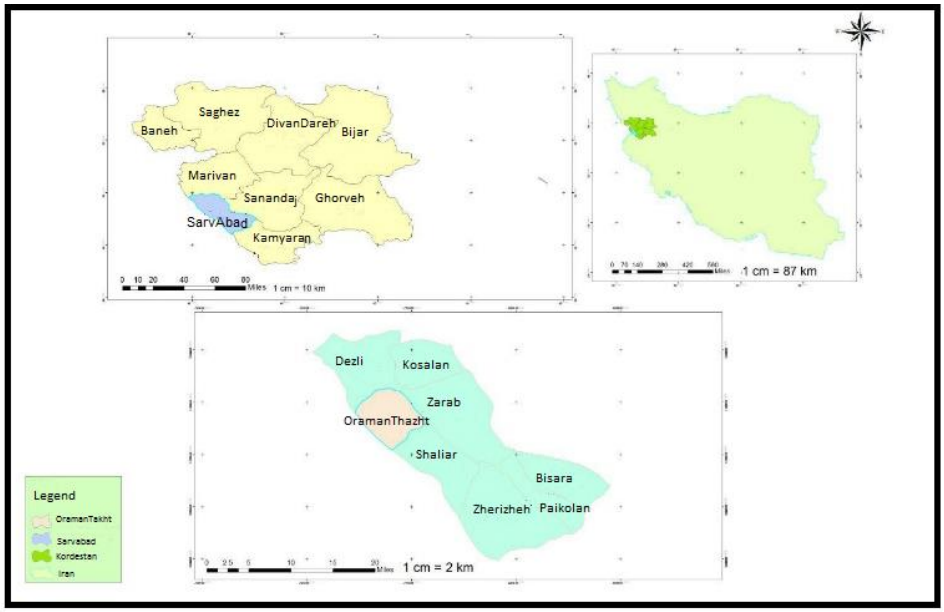

Figure 1. Geographical and political divisions of study area
(Source: Research findings, 2018)

3.2. Methodology

The present study is an applied research in terms of its purposes and has a descriptive-analytical nature. In addition, in terms of data collection method, it is a documentary-survey research. In the present study, the quality of rural housing was assessed to evaluate the effective factors in improving the quality of rural housing using the relevant indicators. The statistical population of the study was the Oraman District with 2468 households. The samples of the study were selected by simple random and stratified method, and the sample size of 1135 households was obtained using the Cochran sampling formula. The questionnaires were equally distributed in each village (see Table 3).

Table 3. Distribution of questionnaires in Oraman district
(Source: Research findings, 2018)

Oraman Takht	499
Sarpir	172
Rivari	182
Kamaleh	282
Total	1135

The data collection was done by library and field methods and the data collection tool was the interview and questionnaire. The questionnaire consists mainly of closed-ended questions with the answers in five-point Likert scale. The descriptive (mean and standard deviation) and inferential statistics (chi-square factor analysis and Friedman) were used to analyze the data from the questionnaire by SPSS software. Also, the Cronbach's alpha was used to assess the reliability of the research tool, and the obtained values were 0.84 for economic dimension, 0.72 for physical dimension, 0.74 for social dimension, and 0.77 for management dimension.

3.3. Research variables and indicators

Housing indices are one of the most important and key tools in housing planning, because they are one of the ways for identifying housing characteristics and can help to identify the effective housing parameters and facilitate any proper planning and decision making on housing. One of the most effective and useful tools is to use indicators for evaluating the housing quality of rural areas. So far, several indicators on the evaluation of housing quality have been presented in various studies, some of which are selected here as the research indicators (see Table 4).

Table 4. Research indicators
(Source: Research findings, 2018)

Dimensions	Indicators	References
Economic Dimension	Government credits in housing; Private sector investment in housing; Subsidies in housing sector; Credit facilities of banks and institutions in housing sector (relative to loan); Employment created by housing sector; Annual rate of increase in housing price; Ratio of housing cost to total cost of household; Ratio of housing cost to household income; Price of land; Price of building materials; Cost of land preparation; Household income; Costs gained from tourism; Economic diversity in region; Investment of indigenous people living in adjacent villages	Afrakhteh & Havasi (2011), Seifoddini et al. (2013), Anabestani & Mahmoudi (2017), Majidi (2012), Dehdari (2001), Moini (2008)
Social Dimension	Existing housing; Number of households; Annual population growth rate; Housing demand; Households dimension; Household density in residential units; People density in residential unit; Room density in residential unit; Social participation of people in enhancement of housing quality; Rivalry of people and families for social prestige; Increasing household literacy; Return of immigrants or reverse migration of townspeople to village; Methods for using existing building materials	Ebrahimzadeh & Ghader Marzi (2015), Bayat (2017), Habibi & Ahari (2004), Sartipipour (2007), Shakouri & Asgari (2012), Mohammadi et al. (2013), Husar (2011), Malian (2008), Tress & Tress (2003)
Physical Dimension	Housing patterns (single-unit, high-rise); Building density; Residential density (body, landscape, face); Average floor area (composition and formation of physical form of village); Floor area per capita (composition and formation of physical form of village); Facade and type of building materials (exterior view); Construction methods (exterior view); Abnormal housing units relative to all available housing; Materials used at site for improving housing quality; Spatial relationship with city; Village access to adjacent towns and villages	Maleki (2011), Maleki & Sheikhi (2009), Mohammadi Yeganeh et al. (2016), Anabestani & Mahmoudi (2017), Majidi (2012), Shakouri & Askari (2012), Oddershede et al. (2007), Eben & Mohammad (2001)
Management Dimension	Needs of village to other uses and forcing village to change use to other housing needs; Space intended for pre-construction; Technical capability and equipment for conducting guidance plan; Correct planning; Dutiful managers and authorities and paying attention to problems; Rural management and lack of tribal management; Creativity and innovation in positions assigned to authorities and lack of stagnation of ongoing works; Housing Foundation measures on housing lending and retrofit; Imam Khomeini Relief Committee measures on housing construction for clients; Financial assistance from Welfare Office; Consultation of governmental and non-governmental organizations such as Red Crescent and others for housing construction	Arjmandnia (2001), Bayat (2017), Saeedi & Amini (2010), Seifoddini et al. (2013), Anabestani & Mahmoudi (2017) , Majidi (2012), Dehdari (2001), Husar (2011), Malian (2008), Edwards & Turret (2002)

4. Research Findings

In this section, the samples are described after collecting the data using the descriptive statistics including the frequency, frequency percentage, diagram and table.

Reviewing the information obtained from the questionnaire, the frequency of subjects according to the education level of respondents is illustrated in Table 5. According to the study sample, the highest frequency is related to the subjects with diploma and associate degree education levels.

Table 5. Education levels of respondents
(Source: Research findings, 2018)

Variable		Frequency	Percentage
Education level	illiterate	232	20.44
	certificate	408	35.94
	diploma and associate degree	253	22.29
	Bachelor and higher	242	21.32
	Total	1135	100.0

The results of Table (6) show that the frequency observed in the economic dimension for the very high rural housing quality has the highest value, and considering the positive residual of the very high class, it can be stated that most subjects consider the high influence of economic index on the quality of housing. Based on the scores obtained from the sample in the economic index and the one-sample T-test, the results showed a significant level (Sig), which is below the error level of 0.050 in the economic index, as shown in the figure above. The T statistic in this index is smaller than + 1.96 (t-table) and is not in the critical area of the test. According to the mean index, the economic dimension (38.21) is in good condition (see Table 7). Of the economic indicators, the respondents considered the amount of loans to be low and believed that it does not suffice the construction costs. Furthrmore, the low income and high construction costs along with the price of building materials can be mentioned. Notably, the respondents believed that the price of materials was higher than cities due to the transportation cost which was an obstacle to housing improvement and enhancing the housing quality. However, the job creation capability of rural housing is limited and the construction costs are high. Rural employment is also an important factor in housing quality. In fact, in the low-employment villages, because of the low income, the homes are also of poor quality. The families with many employed people have more adequate buildings. The amount of investment in housing is limited, and it is also related to the people who are sometimes unable to invest, meaning that the lack of private sector in housing construction is an important issue from the viewpoint of respondents with regard to the housing quality. Therefore, the economic dimension is the most important factor affecting the quality of housing from the viewpoint of the respondents.

Table 6. Descriptive results of rural housing quality Indices in economic dimension
(Source: Research findings, 2018)

Economic dimension	Frequency	Residual	Mean	T value	Sig.
very low	170	-57.00	38.21	-22.63	0.000
low	116	-111.00			
moderate	109	-118.00			
high	175	-52.00			
very high	565	338.0			
Total	1135				

The results of Table 7 show the descriptive study of the physical dimension indices, which in addition to the descriptive results, shows that the respondents consider the physical dimension to be highly influential on the factors affecting the quality of housing. The test was also used to examine the mean physical dimension, and according to the mean physical dimension (44.84), it can be stated that the physical dimension status is an effective factor in improving the quality of housing. From the perspective of the respondents, it indicates that the physical dimension of housing is very important in determining the quality of housing. The variables of quality of materials are of great importance because the quality of materials, according to Pakhvan, differs from that of the city and has a lower quality level, which makes rural housing less adequate. The relationship between the city and the village and the density and patterns of housing are all important factors in the physical dimension which the respondents think that may reflect the high quality of rural housing. The villages that are less distant from the city and the villages where the people are more connected to the city have better housing quality. This finding suggests that improving the physical variables will improve the housing quality. The construction method is also important and the use of indigenous and environmentally friendly facades is one of the factors affecting the quality of housing. In other words, the respondents believed that the homes with the indigenous design were of higher quality, but because they need specific materials, builders and architects, it was difficult to implement.

Table 7. Descriptive results of rural housing quality indices in physical dimension
(Source: Research findings, 2018)

Physical dimension	Frequency	Residual	Mean	T value	Sig.
very low	198	-39.00	44.84	-6.82	0.000
low	205	-22.00			
moderate	266	-29.00			
high	96	-131.00			
very high	370	143.0			
Total	1135				

The results of Table 8 show that the social dimension of housing quality was high. According to the social participation indices of residents, increasing the literacy of households has a great effect on the housing quality, and if the participation of villagers is increased, housing of higher quality will be built. Given the mean social dimension (34.79), it can also be stated that the social dimension is moderately proportional to the economic and physical dimensions. This dimension includes the influencing variables such as literacy level and number of households. The households with a higher literacy level had higher quality housing, indicating that literacy is an important factor in enhancing the housing quality, because the residents have realized the importance of high-quality housing. The reverse migration is also a factor for the improvement of housing quality. The migrants who have returned to the village are more likely to build quality homes, and their homes have better conditions, which can be due to the impact of living in the city. The rivalry causes the people in the village to seek housing reconstruction and thus, to improve housing quality. Population growth also affects housing quality and increases the housing quality. In the rural areas with a higher population growth and higher population, housing is of better quality.

Table 8. Descriptive results of rural housing quality indices in social dimension
(Source: Research findings, 2018)

Social dimension	Frequency	Residual	Mean	T value	Sig.
very low	136	-91.00	34.79	25.42	0.000
low	182	-45.00			
moderate	214	-13.00			
high	191	-36.00			
very high	412	185.0			
Total	1135				

The results of Table 9 show that the frequency observed in the management index in the very high quality of rural housing has the highest value. Considering the positive residual of the very high class, it can also be stated that most subjects consider the moderate influence of management index on the quality of housing. Based on the scores obtained from the sample in the management index and the one-sample T-test, the results showed a significant level (Sig), which is below the error level of 0.050 in the social index, as shown in the figure above. The T statistic in this index is smaller than + 1.96 (t-table) and it is not in the critical area of the test. According to the mean index, the management dimension (24.70) is in good condition (see Table 9). For example, the activity of the Housing Foundation in the village plays an important role in the quality of rural housing. In the villages where the activity of Housing Foundation is more evident, housing is of better quality. The institutions such as the Imam Khomeini Relief Committee, Welfare Organization and the charity organizations promote the housing quality with the financial support. On the other hand, the performance of village administrations and village councils leads to the improved quality of rural housing. In fact, the performance of village administrator and the individual and management characteristics of the village administrator play an important role in the quality of rural housing. One of the major challenges of housing quality is the tribal management issue which has caused disputes on the quality of housing in the regions of cultural diversity. The villagers believe that the village

administrators are not impartial in such regions and are more in favor of their tribe.

Table 9. Descriptive results of rural housing quality indices in management dimension
(Source: Research findings, 2018)

Management dimension	Frequency	Residual	Mean	T value	Sig.
very low	34	-91.00	24.70	-11.71	0.000
low	235	-45.00			
moderate	382	-13.00			
high	0	-36.00			
very high	484	185.0			
Total	1135				

In the following, the research components are identified through the factor analysis.
Based on the results of KMO test with the value of 0.796, the research data can be reduced to a number of underlying and fundamental factors. Also, the result of Bartlett test (1774.58), which is significant at the error level of 0.05, shows that the correlation matrix between the items is not a similarity and identity matrix. This means that, on the one hand, there is a high correlation between the items of one factor and, on the other hand, there is no correlation between the items of one factor and the items of other factor (Table 10). The findings of this table show that the data used in this study are suitable for factor analysis; therefore, this test can be performed.

Table 10. Kaiser-Meyer index/Bartlett test for suitability of factor analysis test
(Source: Research findings, 2018)

Bartlett Test		
Kaiser-Meyer/Bartlett test for sampling adequacy of factor analysis		0.796
Bartlett sphericity test	Chi-square value	1774.58
	Degree of freedom	6
	Significance level	0.000

In the Extraction column, the value of this variance ranges from (0) to (1), the nearer the values to (1), the better they are. These findings are shown in Table 11. In the first column, there are the raw data that have been analyzed from the beginning. The next column shows the data after the factor rotation (it was varimax rotation). This rotation causes the variables to be placed in the considered factor, which are referred to as the extracted values.

Table 11. Set of factors for explaining variance of each item (specified communalities)
(Source: Research findings, 2018)

Variables	Raw extraction	Rescaled extraction
Government credits in housing	1.860	.897
Private sector investment in housing	.805	.753
Subsidies in housing sector	1.750	.868
Credit facilities of banks and institutions in housing (relative to loan)	559	.532
Housing sector employment rate	.407	.525
Annual rate of increase in housing price	.819	.721
Ratio of cost of housing to total cost of household	.022	.025
Ratio of housing cost to household income	.358	.254
Land price	.333	.335
Price of building materials	.434	.323
Cost of land preparation	.219	.280
Household income	.866	.750

Variables	Raw extraction	Rescaled extraction
Costs gained from tourism	1.649	.875
Economic diversity in region	.848	.756
Indigenous people investment in adjacent cities	1.636	.833
Existing housing	.827	.649
Number of households	.757	.585
Annual population growth rate	.692	.767
Need for housing	.043	.059
Household dimension	.565	.378
Household density in residential unit	1.807	.881
People density in residential unit	.816	.711
Room density in residential unit	1.772	.888
Social participation of people in improvement of housing quality	1.719	.868
Rivalry of people and families for social prestige	.818	.654
Increasing household literacy	2.097	.841
Return of immigrants or reverse migration to village	.031	.125
Methods for using existing building materials	1.638	.697
Existing housing	.818	.654
Number of households	2.097	.841
Annual population growth rate	.099	.157
Need for housing	.006	.024
Household dimension	.805	.680
Household density in residential unit	.077	.098
People density in residential unit	.996	.737
Room density in residential unit	1.853	.862
Social participation of people in improvement of housing quality	.745	.693
Rivalry of people and families for social prestige	1.658	.846
Increasing household literacy	.351	.365
Village need for other uses and fording village administration to change use to other housing needs	.515	.561
Space intended for pre-construction	.785	.723
Technical capability and equipment for conducting guidance plan	.901	.763
Correct planning	1.711	.892
Dutiful managers and authorities and paying attention to problems	.798	.771
Rural management and lack of tribal management	1.736	.862
Creativity and innovation in positions assigned to authorities and lack of stagnation of ongoing works	.808	.648
Housing Foundation measures on housing lending and retrofit	.339	.493
Imam Khomeini Relief Committee measures on housing construction for clients	.842	.674
Financial assistance from Welfare Office	.321	.404

The scree test is one of the most popular graphical methods for selecting the appropriate number of factors in the exploratory factor analysis from the eigenvalues. This test shows the results in the form of a diagram where the factors or components are represented in the horizontal axis Y and the eigenvalues in the vertical axis X, so that the eigenvalues are decreased by moving to the right.

As shown in Fig. 2, to select the appropriate number of factors, we can use both the eigenvalues greater than one and the point at which the curve line is sharply decreased. In the scree method, the factor extraction continues until the specific variance is lower than the common variance, that is, before the specific variance exceeds the common variance. In other words, it continues until the share of common variance is greater than the share of the specific variance (see Fig. 2). Based on the results of this diagram, only the factors are extracted whose eigenvalues are higher than one. Therefore, according to the figure above, four of the analyzed factors can be reduced. Thus, the results show that a new structure can be designed and analyzed from the set of factors. Also, the share of each factor in explaining the

variance of items related to the housing quality is descending, that is, gradually decreased.

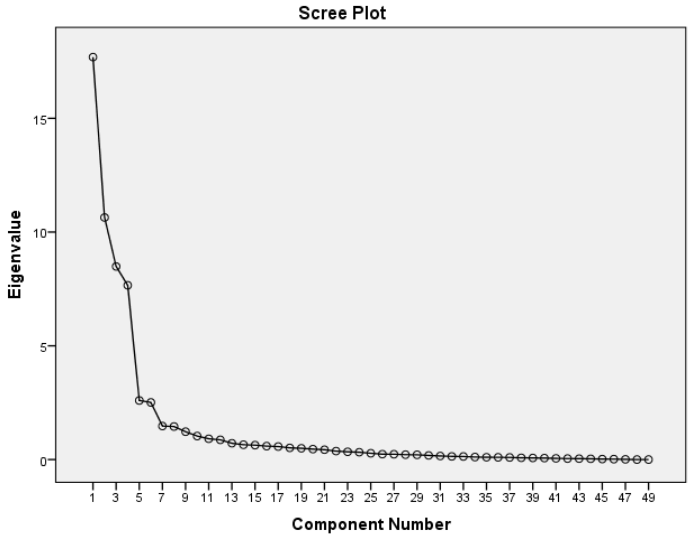

Figure 2. Scree plot
(Source: Research findings, 2018)

Table 12 shows the names of the extracted components. The coefficient of determination of the components is 68.13. This means that the four components alone account for 68.13% of the total weight affecting the housing quality. The most important component is the economic one which has the greatest impact on the quality of housing. Within this dimension there are the variables of income, loan and facilities, paying attention to which has the greatest impact on the quality of rural housing. The social component is ranked second, which shows that social variables have a significant impact on the quality of rural housing, and should not be overlooked. The variables within this component are the education level, number of households, reverse migration, and so on, which improves the quality of rural housing. In the third rank the physical component is listed, which indicates that physical variables play a significant role in the quality of rural housing. The variables within are the quality of materials, the indigenous design and rural urban communications which improve the physical quality and thus, the quality of rural housing. The last one is the management variable that should be considered to improve the quality of rural housing. The functions of the village administration council and the organizations and institutions and the individual characteristics are the determining factors which improve the quality of rural housing.

Table 12. Components and percentage of explained variance
(Source: Research findings, 2018)

No.	Component	Explained Variance Percentage
1	economic	27.10
2	social	16.30
3	physical	13.00
4	management	11.73
Total		68.13

In the following, the normality of the statistical population is explored through performing statistical tests. In this regard, the data normality assumption is examined using the Kolmogorov-Smirnov (K-S) test. The K-S test shows the normality of the data distribution. That is, it compares the distribution of an attribute in a sample with a distribution assumed for a community. If the data has normal distribution, the parametric test can be used; otherwise, the nonparametric test should be used.

According to the results of Table 13, as the level of significance for all the components is less than the error value of 0.05, the variables have non-normal distribution and the non-parametric tests are used to test the hypotheses.

Table 13. Results of normality test of effective factors in improvement of rural housing quality
(Source: Research findings, 2018)

	Economic Index	Physical Index	Social Index	Management Index
Number	345	345	345	345
Mean	38.21	44.84	34.97	24.70
Standard deviation	4.27	7.73	5.13	4.28
Z statistic	2.13	1.60	3.36	1.60
Significance level	0.000	0.011	0.000	0.012
Hypothesis confirmation	H_1	H_1	H_1	H_1
Results	non-normal	non-normal	non-normal	non-normal

The chi-square (X^2) statistic was used to answer the research questions. The results of Table 14 show that the chi-square statistic was used for the factors affecting the improvement of rural housing quality (economic factors: 139.13, physical factors: 139.44, social factors: 146.12 and management factors: 123.05) and the significant level of all factors is less than the error level of 0.05 which is significant, suggesting that it can be deduced that the indices can well influence the improvement of housing quality although the effect of each index varies. That is, the management index is much less effective in improving the quality of housing than other indices.

The dimensions (economic, physical, social and management) of housing had a greater impact on improving the quality of rural housing. In addition, Table 14 shows that all three variables are interrelated, that is, one cannot just focus on the economy of people for the quality of rural housing, as each dimension affects other dimensions. This refers to improving the physical or social dimension of the village affects the management and economic dimensions, and vice versa. Thus, to improve the quality of rural housing, all aspects should be taken into account and be developed at the same time.

Table 14. Chi-square (X^2) test results for factors affecting improved rural housing quality
(Source: Research findings, 2018)

Variable	X^2	Degree of Freedom	Significance Level
Economic dimension	139.13	16	0.000
Physical dimension	139.44	21	0.000
Social dimension	146.12	16	0.000
Management dimension	123.05	17	0.000

In the following, the question is that what significant difference exists between different dimensions of housing quality in Oramanat villages? The Friedman statistic was used to test this question. The results of Table 15 show that because the level of significance is less than 0.05%, it can be stated that the difference between the means is significant. In this case, the null hypothesis is rejected and the researcher hypothesis is confirmed. This shows that housing quality was more adequate from some dimensions and poorer from some other dimensions, suggesting that housing quality from some dimensions needs to be improved and invested more than others.

Table 15. Friedman test
(Source: Research findings, 2018)

Variable	Friedman Statistic	Degree of Freedom	Significance Level
Factors affecting improved rural housing quality	941.87	3	0.000

Table 15 shows that some dimensions are weaker than other dimensions. Table 16 shows that the management dimension is the weakest index and the economic dimension is the strongest dimension of housing quality. That is, more work needs to be done on the management factors, because the weakest and least influential dimension for improving the quality of rural housing is the management that should be considered. On the other hand, the economic dimension, which is the most important dimension, has received the most work and attention. There are two physical and social dimensions in between, indicating that these two variables are also influential, but to a lesser extent than the economic and greater than management dimensions.

Table 16. Mean rating of dimensions affecting improvement of rural housing quality
(Source: Research findings, 2018)

Mean rating	Dimensions of Improved Housing Quality
Economic dimension	2.89
Physical dimension	3.91
Social dimension	2.20
Management dimension	1.00

5. Discussion and Conclusion

The lack of facilities and welfare of villagers as compared to urban environments is the main reason for the migration of villagers from the villages. Therefore, the tendency of governments to provide rural housing in recent decades is very important for maintaining the population in rural areas. Because of the greater relevance to economic activities and the natural environment, rural housing has some features that distinguish it from urban housing, and therefore, rural housing is one of the most important elements in the rural areas and a symbol of human interaction with the surrounding natural environment. Therefore, this study investigated the causes and factors affecting the improvement of rural housing quality in the case study of Oraman District, Sarvabad County. The findings of this study were analyzed at two levels of descriptive and inferential statistics. The inferential results of this study showed the extent to which the economic, physical, social and management dimensions have an impact on improving the quality of rural housing. Consistent with the results, Bayat (2017) showed that low health status, facilities and welfare related to housing poverty can influence the improved housing quality. Moreover, Anabestani & Mahmoudi (2017) showed that among ten variables of quality of life introduced to the regression test, five indices, namely economic justice, personal well-being, access satisfaction, quality of environment and housing, were entered into the model and 46% explained the changes related to the dependent variable. Also, consistent with the results outside of Iran, Emanoel (2012) suggested that the changes in the social totality approach for the improvement in the quality of low-income housing to enhance the quality of life in urban areas. Zainal et al. (2012) also showed that the physical structure of housing, occupancy, housing welfare and services facilities, and health and safety of housing in Malaysia were evaluated and the results of the research demonstrated the significant relationship between housing quality and quality of life.

Shakouri & Asgari (2012) believed that there were weaknesses in the area of the issue of certificate, rural technical system, improvement and repair facilities, and training of local builders. The findings also indicate that these variables are weak in Oramanat and require more work.

The concerns over the lack of rural development and the village evacuation problems have caused paying attention to the quality of rural housing as one of the aspects of rural vitality in the form of various development and construction plans, economic, social and cultural programs, etc. These findings are similar to those of Parasuraman (1994). The results of the study showed that the management indicators had the least impact on improving the quality of housing, and this can make authorities more aware in this respect, as the lack of proper implementation of projects performed in the villages as well as the lack of sufficient funding can be effective in utilizing the spaces to which every settlement really needs. This is similar to the study conducted by Seidaei et al. (2010) in which their results emphasized the importance of credits. Consistent with Seifoddini (2012), this study shows that the poor management of the authorities is not without

effect in this regard, and that no expert and skilled man is found that truly wants to have an impact on the quality of life and housing. This perhaps has made the management role in housing quality less prominent. However, the physical, economic and social factors had the most impact, respectively. This is also consistent with the findings of Etuck (2012).

The physical development and the improvement of related indices such as the quality of buildings and the per capita existing space of homes are of great importance to the quality of housing. These findings are consistent with the studies of Feghhi Farahmand (2009). He believed that among other effective indices in improving the quality of rural housing are improving the quality of durable buildings, improving the main indices, improving the existing per capita ratio, and directing the housing production to the smaller floor area with a better quality.

The results of this study show that the quality of housing in rural areas is not suitable. This is due to the failure to comply with the housing standards and the poor supervision. This is the case in the rural areas outside of Iran. For example, Mastern (2014) and Husar (2011) stated that the housing status in the mentioned studies is of poor quality and the required standards in terms of tectonic properties, architecture, building materials, population densities, and extent of physical environment, role and function of area, network of roads, etc. should be considered in the housing design to prevent natural disasters and improve the rural housing status.

Based on the results, the following is suggested:

1. The credits allocated to rural housing improvement are limited and should be increased. Besides, more lending resources can also be provided.
2. Training of local builders to design local facades along with modern and durable buildings.
3. The findings show that social factors play an important role in housing improvement. The emphasis on education and raising awareness has a significant role in improving the housing quality.
4. Providing the improvement facilities and monitoring the quality of rural materials are of paramount importance. Sometimes, people criticize the quality of materials, and it is important that we pay attention to the quality.
5. The individual characteristics of village administrator are also important in the housing quality and improvement. Therefore, supporting and assisting the village administrators along with training the village administrator can be effective in improving the housing.
6. Improving the quality of rural housing is a multilateral component that should be addressed concurrent with the economic, social, physical and management dimensions. Unfortunately, most institutions and organizations consider the economic dimension, which makes the housing quality not to be realized as it is needed.

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بررسی علل و عوامل موثر در بهبود کیفیت مساکن روستایی (مطالعه موردی: بخش اورامان شهرستان سروآباد)

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۱. مقدمه

زلزله ای که در غرب ایران اتفاق افتاد، موجب تخریب بسیاری از منازل و درگذشت افراد زیادی شد که اهمیت مسکن و کیفیت آن را دوچندان کرد. با توجه به اینکه در این منطقه تاکنون تحقیقی درباره مسکن و به ویژه کیفیت آن انجام نشده است؛ بررسی عوامل موثر در بهبود کیفیت مسکن می تواند در آینده از بسیاری از خسارات مالی و جانی بکاهد. توجه به توسعه سکونتگاه های روستایی از ضرورت های محوری و انکار ناپذیر توسعه منطقه‌ای و ملی در هر کشوری به شمار می رود؛ زیرا بین توسعه روستایی و شهری یک پیوستگی اساسی برقرار است که بدون داشتن نگاه ویژه به این پیوستگی، توسعه منطقه‌ای و ملی موفقیت آمیز نخواهد بود. توسعه سکونتگاه های روستایی فرآیندی پویا و همیشگی است که در آن علاوه بر جنبه های اقتصادی (درآمد، تولید، مصرف، اشتغال و).. بر جنبه های غیراقتصادی آن از طرف کارشناسان و صاحب نظران سفارش و تأکید فراوان شده است. از جمله مهمترین این تأکیدها، شناخت قابلیت های سکونتگاه های روستایی با توجه خاص به نحوه برخورد با محیط طبیعی و توجه جدّی به ابعاد اصلی و کامل محیط روستا در مطالعات و برنامه ریزی ها قابل بیان هستند. هدف از تحقیق حاضر بررسی علل و عوامل موثر در بهبود کیفیت مساکن روستایی مطالعه موردی: بخش اورامان شهرستان سروآباد است.

۲. روش تحقیق

روش تحقیق حاضر از لحاظ ماهیت توصیفی تحلیلی، از لحاظ هدف کاربردی و از لحاظ روش گردآوری اطلاعات ترکیبی از اسنادی – پیمایشی می باشد. در تحقیق حاضر به منظور بررسی علل و عوامل موثر در بهبود کیفیت مسکن روستایی با استفاده از شاخص های مرتبط به ارزیابی وضعیت کیفیت مسکن روستایی پرداخته شده است. جامعه آماری بخش اورامان با ۲۴۶۸ خانوار است که انتخاب نمونه ها در این تحقیق با استفاده از روش تصادفی ساده و طبقه ای می باشد و با بهره گیری از فرمول نمونه گیری کوکران حجم نمونه برابر ۱۱۳۵ خانوار بدست آمده است؛ به طوریکه به تعداد مساوی در هر دهستان پرسشنامه ها توزیع شدند. روش جمع آوری اطلاعات کتابخانه‌ای و میدانی و ابزار گردآوری اطلاعات مصاحبه و پرسش نامه می باشد. پرسشنامه اساساً از سوالات بسته و با پاسخ هایی در طیف لیکرت پنج مقیاس تشکیل شده است. جهت تجزیه و تحلیل داده های حاصل از پرسش نامه با استفاده از نرم افزارSPSS دو روش آمار توصیفی (میانگین و انحراف معیار) و استنباطی (تحلیل عاملی آزمون کای دو و آماره فریدمن استفاده شده است. همچنین جهت سنجش پایایی ابزار تحقیق از آلفای کرونباخ استفاده شده که مقادیر آن برای بعد اقتصادی ۰/۸۴، بعد کالبدی۰/۷۲ ، بعد اجتماعی۰/۷۴ و بعد مدیریتی ۰/۷۷ بدست آمده است.

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۳. یافته‌های تحقیق

نتایج یافته ها نشـــان داد که ابعاد اقتصـــادی، کالبدی، اجتماعی و عوامل مدیریتی(P<0/000) در بهبود کیفیت مســـکن روســـتاهای اورامان تاثیر گذار می باشـند. همچنین با توجه به سـطح رتبه بندی این شـاخص ها بعد کالبدی با میانگین رتبه (۳/۹۱) دارای بیشـترین تاثیر و بعد مدیریتی با میانگین رتبه(۱/۰۰) دارای کمترین تاثیر می باشـد. بعد اجتماعی کیفیت مسـکن زیاد بوده اسـت. در این بعد با توجه به شـاخص های مشـارکت اجتماعی سـاکنین، بالا رفتن سـطح سـواد خانوارها تاثیر زادی بر کیفیت مسـکن دارد و در روسـتا اگر مشارکت اهالی گسترش یابد، مسکن باکیفیت تری ساخته می شود و همچنین با توجه به میانگین بعداجتماعی(۳۴/۷۹) می توان گفت که وضـعیت بعد اجتماعی نسـبت بعد اقتصـادی و کالبدی در حد متوسـط اسـت. این بعد شـامل متغیرهای اثرگذاری همچون سـطح سـواد و تعداد خانوار است. خانواده هایی که از سطح سواد بیشـتری برخوردار بودند مسـکن با کیفیت تری داشـته اند که این نشـان می دهد سواد عامل مهمی در افزایش کیفیت مسکن است؛ چراکه اهالی به اهمیت مسـکن با کیفیت پی برده اند. همچنین مهاجرت معکوس نیز از جمله افزایش بهبود کیفیت مسـکن اسـت. مهاجرانی که به روستا بازگشته اند، تماسل بیشتری به ساخت خانه های با کیفیت دارند و خانه های آن ها از وضعیت مناسب تری برخوردار است که این امر می تواند ناشـی از تاثیرگذاری زندگی ان ها در شـهر باشـد. چشـم و هم چشـمی ها سـبب می شـود تا در روسـتا افراد به دنبال بازسـازی مسـکن و در نتیجه افزایش کیفیت مسـکن بروند. رشـد جمعیت نیز بر کیفیت مسکن اثر می گذارد و سـبب افزایش کیفیت مسـکن می شـود. در روسـتاهایی که رشـد جمعیت بیشـتر دارند و جمعیتشان بیشتر است، مساکن کیفیت بهتری دارند.

۴. بحث و نتیجه گیری

نتایج این تحقیق نشـــان می دهد که کیفیت مســـکن در نواحی روسـتایی مناسـب نیسـت. این به دلیل عدم رعایت اسـتانداردهای ساخت مسکن و نظارت ضعیف است. این مساله در نواحی روستایی خارج از ایران صـ دق می کند. همچنین نگرانی های ناشـی از عدم توسعه روستایی و مشکلات و مسائل ناشی از تخلیه روستاها، توجه به کیفیت مسـکن روسـتایی را به عنوان یکی از ابعاد سـرزندگی روسـتایی را در قالب انواع برنامه ها و طرح های توسـعه و عمران و برنامه های اقتصـادی، اجتماعی و فرهنگی و ... سـبب شـده اسـت. پایین بودن ابعاد بهداشت، تسهیلات و رفاه مربوط به فقر مسکن می توانند در بهبود کیفیت مسـکن تاثیر گذار باشـند. ضـعف مدیریت مسئولان مسئولان هم در این امر بی نصیب نیست و در این امر هیچ نیروی متخصص و ماهری که واقعا بخواهد در مسئله کیفیت زندگی و مسکن تاثیر گذار باشد، یافت نمی شود و شاید همین امر هم نقش مدیریت را در کیفیت مسـکن کم رنگ تر کرده اسـت. هرچند که عوامل کالبدی و اقتصـادی و اجتماعی هر کدام به ترتیب بیشـترین تاثیرگذاری را داشته اند. در نهایت وضـعیت مسـکن در مطالعات یادشـده، کیفیت مطلوبی ندارد و باید اسـتلندارهای لازم از نظر ویژگی های تکتونیکی، معماری، مصـالح سـاختمانی، تراکم های جمعیت و گستردگی محیط فیزیکی، نقش و عملکرد ناحیه، شـبکه راههـا و ... در طراحـی مسکن برای پیشگیری از بلایای طبیعی و بهبود وضع مسکن روستایی در نظر گرفته شوند.

کلمات کلیدی: کیفیت مسکن، مسکن روستایی، مشارکت اجتماعی، روستاهای اورامان.

تشکر و قدرانی

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Identification and Prioritization of Factors Affecting the Creation of Rural Entrepreneurship Opportunities in Iran

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Abstract

Purpose- To identify and prioritize factors influencing the creation of rural entrepreneurship opportunities in Iran

Design/methodology/approach- A deductive approach was adopted. In this applied research, a mixed method was employed, which consisted of a descriptive-analytical method and a survey. The main data gathering tool was questionnaire. The research population comprised of university professors specialized in the field of rural entrepreneurship, rural entrepreneurs, rural managers and rural experts (n=30). In the first step, based on a review of literature, indicators influencing the creation of entrepreneurial opportunities were identified, and then the ANP-DEMATEL was used for evaluation and prioritization of the indicators.

Findings- Based on cause-effect chart, the economic and infrastructural factors were assigned to the category of causes and individual, socio-cultural and political factors to the category of effects. On the other hand, the economic and political factors had the highest and lowest interaction with other factors, respectively. The results of the integrated analytical network process (ANP) and DEMATEL method showed that the economic factor had the greatest effect followed by infrastructural, sociocultural and individual components (with slight weight difference). The political component with the value of 0.1253 not only had the lowest importance, but was significantly different from other factors in terms of weight values .

Research limitations/implications- Measuring the effects of factors influencing the creation of entrepreneurial opportunities along with their interrelation and mutual impact using a system approach or ISM technique.

Practical implications- Given the myriad of problems affecting rural areas, such as unemployment, migration of rural labor to urban areas and diminished sense of belonging, among other things, it is essential to pay greater attention to entrepreneurship and its implementation to achieve sustainable rural development. Besides, by identifying the root causes and factors influencing rural entrepreneurship, it is possible to offer solutions for organizing entrepreneurship. If policy makers, planners, and rural managers adopt these strategies, sustainable rural development could be reinforced.

Originality/value- Providing the most important indicators influencing the creation of rural entrepreneurship opportunities, prioritizing and measuring the impact of those factors on each other using ANP-DEMATEL method. In particular, the results of this research can benefit managers and decision makers in the field of rural entrepreneurship. The results can also be beneficial to universities, higher education institutions and students.

Key words- Rural entrepreneurship opportunities, Influencing factors, ANP-DEMATEL Method, Iran.
Paper type- Scientific & Research.

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1- Introduction

In the wake of the Industrial Revolution, the fallouts of population growth brought on a myriad of problems. Issues such as poverty, employment, health, rising immigration, deteriorating rural agriculture, food security, dissatisfaction of rural residents, reduced quality of life, weakened sense of belonging and identity, and environmental sustainability are some of these adverse consequences. Failure to address these problems will compromise the sustainability of villages, which accommodate a large portion of the world population, and complicate their survival. This has led to the re-emergence of issues related to rural development in recent years, and theorists, planners and government executives are striving to come up with new strategies to address the problems and concerns that may arise (Roknoddin Eftekhari & Mahdavi, 2006). One of these strategies, which has recently been adopted by most countries, and even implemented in some parts of the world with factorable outcomes, is rural entrepreneurship (Toledano & Soriano, 2010). Based on the previous studies and the experience of different countries, entrepreneurship represents one of the main ways to bolster economic power and alleviate unemployment and poverty to the extent that it has been called as the main economic impetus (Archibong, 2004). It is the major source of developments in the realms of production, service, business, economy, employment creation, sense of belonging, and consequently the stay of rural residents, which can preclude a host of problems and beget drastic social reforms with broad implications in a wide range of economic, social and cultural areas, to mention a few (Van Stel, Caree & Thurik, 2004).

Accordingly, today rural development is increasingly reliant on entrepreneurship. Rural entrepreneurship is a potential source of employment, a key strategy for preventing rural unrest, a means of increasing people's income and raising the employment rate of women and their autonomy. It is also a factor of social protection, and as a whole, a vehicle for improving the quality of life for individuals, families and communities to establish a healthy and environment-friendly economy (Van Stel et al., 2004).

Rural entrepreneurship has been acknowledged as a key component for developing national economy (Paul, Azimi, Abu Samahc, Arif Ismail & Lawrence D'Silva, 2014). Rural entrepreneurship in the process of sustainable rural development facilitates the access of villagers to goods and services, promotes economic growth and employment and curbs immigration, promotes social security and welfare in villages, changr rural structures, and contribute to the systematic exploitation that in turn prolongs the stay of rural residents in villages (Vernet Khayesi, George, George & Bahaj, 2019). Hence, it is necessary to take rural entrepreneurship into consideration to achieve sustainable rural development. In Iran, problems arising from land reforms, such as the unbridled immigration of people from rural areas to cities, unemployment, poverty, etc., have exhibited the importance of sustainable rural development. On this basis, specialists and planners have undertaken numerous projects and studies in relation to rural entrepreneurship. However, given that this concept is still in its nascent stage, and this subject should be addressed with regard to regional potentials and its localization, the necessity of further research in the rural areas of Iran is strongly felt.

Now, to pave the way for the rural development of entrepreneurship in villages, the existing capacities and limitations should be identified in different spheres, because the development of entrepreneurship in rural areas must be in keeping with temporal and spatial requirements governing villages in each country.

Nonetheless, the development or establishment of entrepreneurship in villages calls for the provision of requirements such as education, entrepreneurial culture, infrastructure, and so forth. In this regard, by identifying and explaining the influential factors, prioritizing and explaining the nature of relationship between the components, this research sets out to improve the situation of the villages.

2- Research Theoretical Literature

Education is a dynamic process of creating added value. This value is created by those who take great risks in terms of equality, time or work commitment to grant value to a product or service. The product or service may or may not be new or unique, but the value must be created by the entrepreneur in some way by securing and allocating necessary resources and skills (Hystrich & Michael, 2005). In another definition propose by Arthurtle, entrepreneurship is defined as: (1) a goal-oriented activity that includes a series of coherent individual or collective decisions

to establish, develop, or maintain an economic entity. Feizbakhsh also contends that entrepreneurship is taking risk, pursuing opportunities, satisfying needs through innovation and establishing a business. According to him, entrepreneurship is the process of creating something valuable and distinctive through the allocation of time and effort, which is characterized with financial, psychological, and social risks along with the reception of financial rewards and personal satisfaction (Feizbakhsh, 2002) Entrepreneurship is the creation of a new business that involves high risk and uncertainty. Entrepreneurship is the generation of wealth, establishment of business, innovation, change, job creation, value creation and growth (Morris et al, 1994). Weijermars & Sergey (2011) also define entrepreneurship as the inclination for team work, risk-taking, value creation, establishment, leadership, execution, pursuit of innovation in order to maximize the value of opportunities, regardless of the limits of models, structure, or resources.

According to the above definitions, entrepreneurship is a multidimensional phenomenon and there is no general consensus on its definition. Not only are there multiple psychological, anthropological, economic and business approaches to this concept, it seems that the prevailing view of entrepreneurship definition varies at different times and places. This has given rise to different definitions of entrepreneurship, with distinctive key points underlining each definition such as establishing new organizations, combining existing factors, exploring and taking advantage of opportunities, tolerating uncertainty and integrating production factors, to mention a few.

All definitions of entrepreneurship concur that entrepreneurial behavior is characterized with: (1) innovation (2) reorganization (3) social and economic mechanisms (risk taking or failure), which are crucial to the success of an entrepreneur (Afrin, Islam & Ahmed, 2010).

2-1-Economic Factors

Considering the role of economic factors and conditions in the process of launching and developing entrepreneurial businesses, economic factors have received growing attention in research on determinants of entrepreneurship. This is especially important in rural entrepreneurship due to some constraints associated with the economic condition of rural areas. In this context, Rokn al-Din Eftekhari et al. (2008) in their study on rural environment concluded that for the development of entrepreneurship in rural areas, economic factors should be taken into consideration. In their research, they found that the major factors underpinning the development of rural entrepreneurship in the rural areas are economic factors, among which sufficient financial capital is vital to business start-ups.

Jelodar Fallah, Farajollah Hosseini, Hosseini & Mirdamadi (2007) in their study in the northern provinces of Iran reported that financial support and government policies for provision of banking facilities are factors crucial to the success of women entrepreneurs in rural areas. Golestani, Saadatmand, Rajaian & Ehteshami (2010) posited that economic factors, along with educational and cultural parameters, are of utmost importance.

Insufficient capital in rural areas, which is rooted in low income levels and consequently low savings of families, is considered as one of the challenges of entrepreneurship and rural development (Najafi Kani, Hesam & Ashor, 2015). In fact, economic support is vital to the establishment of business and entrepreneurship. Access to sufficient financial capital and financial independence or economic support of the family and friends can wield considerable influence on accelerating the entrepreneurial process. In addition, financial and banking facilities together with the participation of private and local investors can also have an effect on the level of entrepreneurship (Feyz, 2007).

2-2- Sociocultural factors

Socio-cultural factors act as a motivational and supportive mechanism. They demonstrate people's desire for performing a certain activity, organizing material and social environment, overcoming barriers, stimulating competition through greater efforts to excel rivals. Therefore, one of the main factors that lay the ground for entrepreneurship is the sociocultural environment that affects decision-making. In principle, it is difficult to decide whether to change a way of life or doing a job. To this end, it is essential to dedicate enormous energy and to summon courage necessary for making change or doing something different. For the success of the people who decide to make a change, a supportive and nurturing environment is vital (Hezar Jaberi, 2005).

The sociocultural environment of a society influences on the development of entrepreneurial spirit among young people. It is because some individuals are brought up in an environment that provides the ground for spurring motivation and cultivating their attributes. Studies have shown that if these people start a business, they will often be

successful, but most people have not access to these environments; therefore, it is essential to offer incentives and promote attributes of these individuals. These features embrace a range of factors such as teaching creative thinking, encouraging risk-taking, building up tolerance, nurturing self-esteem, recognizing opportunities and providing educational information about psychological features such as an internal locus of control.

Accordingly, one of the main factors influencing entrepreneurship in any society is the dominant culture of that society. A culture that values entrepreneurship encourages people to pursue entrepreneurship. With regard to entrepreneurial culture, societies can formulate policies that foster entrepreneurial behavior. It means that, in general, people of a community are more or less likely to become entrepreneurs. There is a strong correlation between the culture of people and the desire for entrepreneurship. Identifying and understanding the social or cultural foundations of a particular community or region (for example, a rural community) can provide a solid starting point for nurturing an entrepreneurial economy and society (Lordkipanidze, 2005).

The reviews of empirical studies show that entrepreneurship can be trained, or at least promoted through training. Research shows that entrepreneurship can be educated, reinforced and cultivated. The first countries that carried out programs for entrepreneurship education were Britain, the United States and Japan (Feyz, 2007). Entrepreneurship education refers to programs that increase entrepreneurial knowledge for career goals and provide skills that enable individuals to foster abilities required to start new business with confidence and recognition of opportunities (Hassan Moradi, 2006). Generally, entrepreneurship education is a systematic, conscious and goal-oriented process in which non-entrepreneurial people with potentials are educated in a creative manner (Saeidi Mehrabad & Mohtadi, 2009). This kind of training is in fact an activity used to transfer knowledge and information required to set up and operate a business. It can also lead to the improvement and expansion of attitudes, skills and abilities of non-entrepreneurs (Zabihi and Moghaddasi, 2006). It should be noted that the scope of entrepreneurship education varies relative to the cultural context and the characteristics of people attending these courses.

As such, entrepreneurship education, type of training and their importance will be different. Many scholars have highlighted the importance of training rural entrepreneurs as the most effective way to help raise awareness and develop small businesses (Heriot, 2002: 3).

Rural entrepreneurship education is a highly productive investment in the development process, especially in agriculture and rural development. The establishment of an active economic unit in the villages requires a broad range of knowledge and skills, while villagers often have a low skill levels in this field. Therefore, it is necessary to raise their awareness and knowledge through these educational courses. However, training courses would be effective if they are organized and implemented in order to meet certain needs and achieve a certain goal (Abbaszadegan, 2000). Although lack of training in entrepreneurship skills is the major reason for the failure of small businesses, the first step in developing entrepreneurship is to identify demands, and train entrepreneurship. There is a strong association between the culture of the people and the desire for entrepreneurship. To date, social and cultural dimensions of entrepreneurship have been disregarded due to the adoption of a unidimensional view of entrepreneurship. Individuals who come up with new ideas often has social backgrounds, such as family characteristics along with community traditions, the degree of participation and cooperation, friends, relatives and neighbors, who can support them on the path to success. Thus, entrepreneurship provides a host of social benefits for the rural society. It aids the society through state-sponsored programs, which is an indicator of the socio-economic development of society. When a community's participation in entrepreneurial activities is high, they are more likely to accomplish economic and social development (Najafi Kani et al., 2015).

2-3- Infrastructural Factors

In addition to the above factors, entrepreneurship development is linked to the entrepreneurial infrastructure and support. Rural communities, due to their existential, functional and structural nature, are closely interwoven into their peripheral environment; therefore, it is imperative to consider environmental and infrastructural factors in the development of entrepreneurship. (Rokn al-Din Eftekhari, Pourtaheri & Fazli, 2014). Maia and Mack, in their study of entrepreneurship with an emphasis on infrastructural and environmental factors, introduced

environmental factors as the most critical factor in entrepreneurship. Entrepreneurial infrastructure provides elements such as amenities and utilities (water and electricity), services, duties (taxes, and regulations), which are important to entrepreneurs. Entrepreneurial support involves directing public and private activities, such as business services, focusing on entrepreneurs, creating favorable environments and infrastructures, building networks and setting up counseling groups to support entrepreneurs. As far as entrepreneurial infrastructures are concerned, the specific entrepreneurial needs that are vital to entrepreneurs must be satisfied (Imani Qeshlagh & Hashemi, 2009).

Entrepreneurial infrastructures embrace components such as facilities and utilities (water, electricity, road, etc.) and regulations that are integral to the success of entrepreneurs (Dadvarkhani, Rezvani, Imeni Gheshlagh & Bouzarjmehri, 2009).

2-4- Individual Factors

Individual factors also produce an effect on entrepreneurship. According to Sen, an entrepreneur is a person who individually embarks on developing and managing sources or a new activity by relying on his own understanding of the market (Avramenko & Silver, 2010). In general, in regard to individual factors, parameters such as innovation in production and attraction of investment, striking a balance between supply and demand, generating revenues, fostering money exchange in the economy, providing tools and supplying new products to the market, tolerating uncertainty, nurturing management skills, shifting economic resources based on the principles of productivity, and recognizing untapped and opportunities can be mentioned (Chowdhury, 2007). Littunen (2000) attributes characteristics to entrepreneurs including risk-taking ability, innovation, knowledge of work techniques, market and marketing, business management skills, team work skills, a general understanding of business principles, and the ability to seize opportunities. On the other hand, Markman & Baron (2003) argue that the main parameters of entrepreneurial success are tied to individual entrepreneurs' characteristics including self-reflection, opportunism, work autonomy, possessing human capital and social skills.

Kiggundu (2002)Kiggundu divides the determinants of entrepreneurial success into two groups of personality traits of entrepreneur and characteristics of the company and environment. Wagner and Sternberg (2004) divide factors underlining entrepreneurial process into three groups of macro-criteria, micro-criteria and entrepreneurial personality traits. Russell, Atchison & Brooks (2008) posit that the entrepreneurial environment is shaped by factors such as macroeconomic, cultural, social and political factors that influence the willingness and ability of individuals to engage in entrepreneurial activities. Masoudnia (2002) in his assessment of personality approaches and their impact on entrepreneurship, puts forth a set of psychological variables such as autonomy, positive feelings toward others, leadership, accountability, perseverance, energy, risk-taking, independence, locus of control, self-esteem and motivation for advancement that distinguish entrepreneurs from non-entrepreneurs. Moradinezhadi (2006) also found that the psychological characteristics of entrepreneurs, their access to resources, marketing skills and interest in agriculture exerts a positive impact on the development of entrepreneurship in manufacturing units.

In another study, Gholerd (2005) identified individual characteristics as one of four important factors in the development of women's entrepreneurship, along with parameters related to the organization, network and environment. He also asserts that the motives and goals of entrepreneurial women are crucial to the development of entrepreneurship.

Accordingly, individual skills wield considerable influence on optimal performance of activities, satisfaction and motivation of individuals, which ultimately leads to human resource development and productivity growth, constituting one of the pillars of entrepreneurship. Jusoh, Ziyae, Asimiran & Kadir (2011) state that entrepreneurs must equip themselves with a variety of skills and attempts to upgrade these skills over time. They need to advance their skills and knowledge through training and be prepared to deal with global challenges and rivalry.

In fact, entrepreneurs must possess special features and attributes. In general, the characteristics of an entrepreneur can be described as follows:

A) Creativity and innovation (Nasrolahi Vosta & Jalilvand, 2014; Saberian & Sabourian, 2014; Faraji Sabokbar, Badri, Sojasi Qeidari, Sadeghloo & Shahdadi Khajeh Asgar, 2010; Najafi Kani et al., 2015): Entrepreneurs and successful people usually have special habits that distinguish them from ordinary people. One of the characteristic attributes of successful entrepreneurs is creativity. Creativity

and innovation are two qualities for which various definitions and achievement mechanism have been proposed. An entrepreneur, apart from awareness of ongoing affairs, should be able to deal with new issues by integrating new solutions with those already in practice.

Most entrepreneurs are small business owners, but not all owners of small businesses are entrepreneurs. Entrepreneurs are creative and innovative, aspiring to find a means of generating revenues that largely matches their enthusiasm.

Schumpeter (1934) introduced entrepreneurship as an economic development engine. In his opinion, entrepreneurship is a set of innovations that breathe fresh air into economy and contribute to its growth and success. He believes that the role of entrepreneurs is to reallocate resources by disturbing current equilibrium. Baumol (1996), much like Schumpeter, examines entrepreneurship from the perspective of innovation. According to him, an entrepreneur employs innovative ways of finding solutions that will build up assets, power and credibility.

(B) Risk-taking, up to datedness (Rezvani, Najarzadeh, 2008; Karimzadeh, Nikjou, Sadr Mosavi & Kouhestani, 2014; Hosseini & Lashgarara, 2014).

Any activity may face accidents and risks in its implementation phase, which can hamper the achievement of desired expectations. Therefore, the probability that precludes the accomplishment of desired returns is called risk. It refers to an unpleasant situation that may affect a person or organization and wreak havocs on their performance. This new situation can be a harmful event, a deterring factor or risk, chaos or instability in the course of activities. One of the qualities of the entrepreneurs is risk taking. Many people assume that risk taking is tantamount to unreasonable exposure to risk, while entrepreneurs tend to take moderate and accountable risks. Most people have a tendency to exaggerate when it comes to taking risk and facing dangers. Conservative people usually take minor risks with slight but reliable returns, perhaps because it is less likely that they face any problem that bring on people's criticism.

Entrepreneurs, however, take the middle ground, meaning that they prefer a moderate risk as they believe their efforts and abilities will have a bearing on the outcomes of the work. Unlike what many people may think, entrepreneurs tend to take moderate and calculated risks rather than extreme risks (Karimzade et al., 2012).

In general, not all types of risk are welcomed by entrepreneurs, and they tend to assume reasonable, and calculated risks. That is, entrepreneurs not only follow ideas as occupational opportunities, but also assess the risks associated with these ideas. Risks manifest in form of chances or uncertainties. When there is a high risk, it means that the possibility of returns is uncertain. In other words, the chance of failure is equal to that of success. When entrepreneurs calculate the risks of a job, they consider the probability of success or failure, which allow them to decide whether to proceed or to abandon that line of activity. When they decide to continue without considering the possibility of failure, they are taking risks (Hosseini & Lashgarara, 2014).

Because of the unpredictable risks of entrepreneurship, only daring people who are prepared to endure struggles can become entrepreneurs. Most people are afraid of confronting risks and dangers, so they refuse to put themselves at the mercy of any risk. They are less likely to participate in activities that are not destined for success. Unlike them, entrepreneurs accept dangers and focus their attention on the chance of success without any apprehension of failure. At the same time, they are cognizant of the possibility of failure, and for this reason, the work appears more attractive to them. Calculations and anticipations of entrepreneurs often obviate the need for taking unnecessary risks. Entrepreneurs generally take four types of risks (Rezvani & Najarzadeh, 2008) Financial risk; 2) Occupational risk; 3) Family and social risk, and 4) Psychological risk.

C) Foresight:

One of the major factors that determine the life of a business and its possibility of success is foresight. It refers to broadening horizons and seeing behind the scenes. It implies looking at the future in the present time, often in a bid to prepare for tackling possible future problems.

When everyone was busy upgrading their laptops and personal computers, Steve Jobs contemplated the idea of making tablets that were much lighter and portable. This future-oriented outlook and foresight were a major drive behind Apple's success. He was able to understand the users and anticipate their needs. While others dwelled in the present day, he was striving to fathom how markets and social trends affect the world around them

(Rhisiart & Jones, 2016). Steve Jobs is the epitome of a visionary entrepreneur. Resourcefulness and far-sightedness are characteristics of entrepreneurs. These attributes not only eliminate the ambiguities of the future but also assists decision makings in the future. You may have heard the story of ant and grasshopper. Nobody wants to be in the grasshopper's shoe when winter comes. Visionary people have a clearer picture of issues, behaviors, reactions and events. An important point to be noted with respect to vision is practicing moderation. Oftentimes, hesitations originating from the fear of the future will be costly for you. Instead of portraying the future, most people prefer to live in their dreams. Surely, being a visionary is completely different from being a dreamer. A successful entrepreneur knows how to look at the future of his business. Hence, try to remain vigilant and practice farsightedness in moderation. Such a vision of future makes people active in the sense that they can determine the path of their life. A visionary person leads a goal-oriented and sensible. Rather than merely responding to the events of life, they make decisions in compliance with their goals and wishes. (Rhisiart & Jones, 2016).

D) Dignity: The social status of a person can facilitate the process of entrepreneurship (especially collective entrepreneurship). One's ability to persuade people into following you and taking advantage of their assistance is mainly determined by your position (Toosi, Jamshidi & Taghdisi, 2014).

E) Motivation and diligence (Faraji Sabokbar et al., 2010, Saberian & Sabourian, 2014).

All actions in life are performed to satisfy a demand or need. Such needs can be primary (food) or secondary (respect). However, every need and desire gives rise to a tendency to address that need. This propensity or perseverance to achieve the desired outcomes is called motivation (Najafi, 1999). The importance of motivation becomes more evident when we learn that rural entrepreneurs have managed to dismantle barriers and pave the way for their entrepreneurship, in spite of the limitations facing rural entrepreneurship.

2-5- Political Factors

Entrepreneurship is impossible without considering the role of various organizations and institutions, because any form of activity needs arrangement and organization at various national and local levels. The government, organizations and the related bodies are among these institutions. On the other hand, local non-governmental organizations that are formed spontaneously have an enormous influence on the growth and expansion of entrepreneurial activities (Lordkipanidze, 2005)

Political-legal environment, concentration on motivated people, capital and skills necessary to set up a business, and the involvement of governments in spurring and developing an appropriate entrepreneurial milieu is of utmost importance of this group. One of the prerequisites for self-employment and entrepreneurship in the country is the formulation of a specific political framework and government support in this area. The lack of a definite and transparent policy of entrepreneurship and self-employment has posed challenges to the development of this sector. Moreover, it has deteriorated the productivity of self-employed businesses and small and medium-sized enterprises. For instance, a significant proportion of entrepreneurs struggle with income insecurity, which affects the extent of their access to public and private social services.

Major policies are divided into three categories of tax, monetary, and regulatory policies (regulatory laws). Tax policies are concerned with the taxing mechanism. If the tax received from entrepreneurs is lower than the standard tax rate, it can act as an incentive for them. The monetary policies are related to the provision of capital and interest rates. With the growth of entrepreneurship, there has been an increasing need for capital, which is in turn influenced by interest rate. In small-sized enterprises that require a relatively lower capital, the effect of interest rate is not as significant. The regulatory policies are also the same as administrative costs, formalities and regulations related to the start of a business (Lordkipanidze, 2005).

Second, the aspects of entrepreneurship development that discusses and analyzes the development of legal policies and procedures in areas with ecotourism potential embrace all inhuman factors such as structure, policies, laws, and the like that lay the ground for the development of entrepreneurship. In this respect, the two major factors of government policies supporting entrepreneurship and legal arrangements for entrepreneurship can be mentioned. They can be divided into four categories.

Third, the entrepreneurship development facet that explores the individual and social characteristics of entrepreneurs.

Table 2. Factors Involved in the Creation of Rural Entrepreneurship Opportunities

Dimension	Index	Item
Economic	Financial	Sufficient capital, the financial ability to set up a business, financial independence, income satisfaction, job security and stability, family financial support, Satisfaction with housing, and satisfaction with the business environment. (Mack & Markley, 2006; Rijkers & Costa, 2012; Nasrullahi Vastai and Jalilvand, 2014; Taghdisi, A., Hashemi, S. & Hashemi, 2015)
	Economic support and access to assistance facilities	Financial support of government agencies and bodies, granting business loans, special facilities and ex gratia loans to deprived areas, awareness of market rates, government support for the expansion of NGOs in the field of entrepreneurship, support of the Islamic Councils and governor of a rural district from investors, access to financial support services, alleviation of barriers to banking facilities, granting subsidies to entrepreneurship investors (Mac and Markley, 2006; Movahedi & Yaghoubi Farani, 2012; Taghdisi et al., 2015)
	Investment	Encouraging local investors to create employment opportunities, aiding young people to create new businesses, the extent of access to capital and credits, motivating and enabling local investors to provide employment opportunities, the private investment for creating different businesses in the village, the private sector cooperation for investment in new businesses (Movahedi & Yaghoubi Farani, 2012; Taghdisi et al., 2015)
	Others	Familiarity with business laws, recognition of appropriate conditions for setting up businesses, access to the production factors in the village, job diversification in the village (), the possibility of creating new businesses, encouraging and using young people to create new businesses, increasing investment in production units, access to modern machinery and equipment, the availability of marketable and economic data and statistics, the development of process activities, the level of satisfaction with income, housing, business environment and telecommunication services (Stathopoulou et al., 2004, Movahedi & Yaghoubi Farani, Soleimani & Movahedi, 2014; Taghdisi et al., 2015)
Socio-cultural	Social	A sense of belonging to the place and interest in hometowns and local people, activity of NGOs, local community readiness for new activities, communication and widespread social network with villagers, positive group work), the provision of a peaceful environment, establishment of various networks of rural cooperatives, the establishment of local production networks at the rural level, traditional community assumptions, incentives and motivations, positive attitudes, a dynamic and an active environment, the position and value of entrepreneurs, relationships and the scale of social networks with villagers, membership in secondary groups, the role of promotors in marketing new businesses (Karimzadeh et al., 2014; Taghdisi et al., 2015; Movahedi & Yaghoubi Farani, 2012; Faraji Sabokbar et al., 2010; Yaghoubi Farani et al., 2014).
	Participation	Participation in the identification of creative and innovative people, the desire to take part in investment, the extent of members' participation in decision making of cooperatives, willingness to participate in cooperative and group activities, encouraging villagers to apply new ideas, participation of the board of trustees and local rural organizations, participation in conducting a survey of demands for the sale of products, the role of village council and Islamic Counsel of villages in promoting entrepreneurship (Taghdisi et al., 2015; Hosseini & Lashgarara, 2014; Movahedi & Yaghoubi Farani et al., 2014)
	Cultural	Promoting the culture of entrepreneurship in the village through the traditional media of the village, the level of general literacy in the region, the male-dominated culture of villages, strengthening rural women's connections with organizations in charge of entrepreneurship, the status of relationship with different individuals and organizations, men's belief in women's ability, the values and beliefs of the society, people's beliefs towards out-of-home activities, the positive attitude towards entrepreneurship, the rules and regulations of cooperatives, customs and traditions of families, awareness of goals, philosophy and the nature of cooperatives, a suitable cultural context for promoting the spirit of cooperation, passion for undertaking projects and the participation of women and girls in social and economic activities (Heydari Sareban, 2012, Toosi et al., 2014, Rijkers & Costa, 2012, Hosseini & Lashgarara, 2014; Taghdisi et al., 2015).
	Educational	Holding training classes, training entrepreneurship skills, training employees and board of directors in cooperatives, training the nature of goals, function and characteristics of cooperative, the suitability of the setting and educational facilities, access to schools at various levels, an entrepreneurship-based education system to promote knowledge, awareness, attitudes, etc., the formulation of a curriculum tailored to the labor market, an educational program to strengthen the culture of entrepreneurship (Movahedi and

Dimension	Index	Item
		Yaghoubi Farani et al., 2014; Carter 1998; Goldoost et al., 2014; Faraji Sabokbar et al., 2010; Hosseini & Lashgarara, 2014).
	Counseling	Offering technical and specialized consultations to the cooperative members in relation to entrepreneurship, establishing entrepreneurship promotion centers for counseling members, using various counseling and support services (Carter, 1998; Movahedi and Yaghoubi Farani et al., 2014; Hosseini & Lashgarara, 2014; Sojasi Qeidari et al., 2014, Faraji Sabokbar et al., 2010; Karimzadeh et al., 2014; Kurd & Abtin, 2013),
	Experiences	Contact with successful and entrepreneurial individuals, holding meetings with entrepreneurs to discuss problems, using elite entrepreneurs to teach entrepreneurship skills, using media and publications to promote entrepreneurial experiences, visiting prominent cooperatives, fostering the relationship with successful entrepreneurs, using personal experiences and experiences of others along with other incentive models, stressing family encouragement, using technical recommendations of experts and promoters, learning about new markets (Faraji Sabokbar et al., 2010; Najafi Kani et al., 2015; Stathopoulou et al., 2004; Avramenko and Silver, 2010; Goldoost et al., 2014; Hosseini & Lashgarara, 2014).
	Access	An environment that helps develop and commercialize entrepreneurial ideas, expansion of transportation, providing suitable infrastructure and facilities, providing appropriate telecommunication, access to proper transportation for transferring goods to the markets and sales outlets, preparing the ground for development of industrial-related activities, the existence of local markets in the villages, the availability of technology for the village (e.g., IT and ICT in the villages), the existence of banks and credit institutions that offer loans and financial credits in the village, the presence of government agencies and organizations in the village, the activity of local organizations in the village, the availability of infrastructure related to the business environment, the implementation of basic and infrastructural projects in the vicinity of tourism attractions, market access, the extent of using e-business (Goldoost et al., 2014; Rezvani and Najarzadeh, 2008; Karimzadeh et al., 2014; Najafi Kani et al., 2015; Faraji Sabokbar et al., 2010; Movahedi and Yaghoubi Farani, 2012; Yaghoubi Farani, 2014; Hosseini & Lashgarara, 2014; Taghdisi et al., 2015).
	Distribution	The optimal distribution of resources in the rural districts, optimal distribution of public services at the villages level.
Individual	Creativity and Innovation	The use of new inputs in agriculture, application of modern agricultural principles, strong incentives to modernize production tools, facilitate activities and diversify products, extensive diversification of rural activities, losing patience in situations where there is no clear answer, contemplating things that no one has tried before, enjoying the discussion of diverse ideas, diversification of rural activities, brainstorming new ideas without exploiting the benefits, doing research and satisfying needs by putting a lot of efforts, offering good ideas, planning to improve activity, offering new products or services, providing new services, creating new structures and infrastructure, presenting novel methods, improving job prospects for children, using new opportunities (Faraji Sabokbar et al., 2010; Najafi Kani et al., 2015; Saberian and Sabourian, 2014; Nasrallahi and Jalilvand, 2014; Sojasi Qidari et al., 2014).
	Risk-Taking	Taking risk to obtain exciting results, enjoying risk, taking risks to promote the situation, knowing that setting up a new business is worth the risk, taking risk to obtain greater profits, taking risks despite the failure probability, taking reasonable risks, huge investment, trying untested methods, situation analysis (Saberi and Sabourian, 2014; Heidari Sareban, 2012; Nasrullahi Vastai and Jalilvand, 2014; Toosi et al., 2014).
	Foresight	Motivation for changing the quality of life, monitoring changes in the surrounding villages and the urban areas, caring about the future of children and families, paying attention to resource use constraints, appropriate funding for activities, perseverance and persistence (Faraji Sabokbar, et al., 2010);
	Diligence	Reaching success through hard work not luck, making changes via hard work, knowing that a good job is the one with specific location, type of work and defined procedure, knowing that one can achieve anything through hard work, continuing work despite numerous obstacles, knowing the importance of working late hours, leadership, consultation, respect, welcoming of comments (Sabirian & Sabourian, 2014).
	Dignity	Leadership, consultation, respect, acceptance of comments) (Toosi et al., 2014).
	Up-to-Datedness of Information	Watching TV, reading the newspapers, following latest news, familiarity with the Internet and how to tap into its potentials) (Rezvani, & Najarzadeh, 2008; Karimzadeh et al., 2014, Hosseini & Lashgarara, 2014).

Dimension	Index	Item
Political		Supportive policies of the government (granting loans, providing infrastructure, education, etc., regional security and politics, policy-making and planning in line with regional potentials, the support of government and organizations, government support for the development of entrepreneurship by non-governmental organizations, existence of entrepreneurship supportive initiatives. governmental insurance and advisory support for entrepreneurship (Movahedi & Yaghoubi Farani et al., 2014; De Rosa et al., 2015; Avramenko & Silver, 2010; Sojasi Qeidari et al., 2014; Karimzadeh et al., 2014).

(Source: Research Findings, 2018)

The issue of entrepreneurship development and parameters influencing the creation of entrepreneurial opportunities in diverse fields of study have been the subject of extensive research. Different experts have attempted to explain factors influencing entrepreneurship development in keeping with their attitudes and ideological backgrounds. Despite the considerable overlap between indicators and factors of rural entrepreneurship from the viewpoint of experts, there are major differences in the manner of integrating and organizing these indicators in the process of entrepreneurship along with the comprehensiveness of the proposed models. However, to provide appropriate indicators in rural areas, extensive studies should be undertaken to identify such criteria. Then, common indicators can be selected and presented in fitting with the conditions of the studied areas. Therefore, in this research, following a review of articles, theses and researches in Iran and other countries, the factors related to the subject matter are presented as follows.

Deller, Kures & Conroy (2019), using data derived from rural areas of the United States, examined the effect of immigrant age on rural entrepreneurship. Based on their results, young and old immigrants had the greatest influence on the booming of rural commerce.

According to López, Cazorla & Panta (2019), entrepreneurial initiatives influencing rural areas are a function of agricultural development or structural policies at the European Union. However, there is a lack of rural approaches focused on entrepreneurship, especially in sparsely populated rural areas in the European Union. The purpose of this article was to expand the empirical literature by providing a real experience.

This article discussed the design and implementation of a rural entrepreneurship strategy in a sparsely populated area with the participation of civil society. According to the results, rural entrepreneurship can be strengthened by strategies designed and evaluated by stakeholders from the basic organizational levels.

De Rosa & McElwee (2015) addressed this issue in their analysis of rural development policies (RDPs) rooted in entrepreneurial behaviors undertaken by family farms in the Lazio, Italia, presenting political factors as a determinant of rural entrepreneurship.

Korsgaard, Müller & Tanvig (2014) in their article titled "Rural entrepreneurship or entrepreneurship in the rural–between place and space" argue that there are two types of ideas presented in the field of rural entrepreneurship: entrepreneurship in rural areas and rural entrepreneurship. While both ideas contribute to local development, the latter has potential for the optimal use of resources in the rural area, though the relocation of these investments is unlikely, even if is driven by an economic rationale.

In a 2014 study entitled "Female entrepreneurship in rural Vietnam: an exploratory study", Nguyen et al. explored the impact of government supporting policies and social and cultural effects on women's entrepreneurship in these areas. The results of this study suggest that government-backed entrepreneurship policies, coupled with private sector interventions, have influenced the villages in Vietnam. However, women in distant rural areas of Vietnam are still held back by social bias, financial constraints and restricted entrepreneurial education opportunities.

Nasrolahi Vosta & Jalilvand (2014) paper examined the impact of social capital on rural women's entrepreneurship. The results of their research revealed the positive and the significant role of social capital on rural women's entrepreneurship. In this context, three factors of social capital (structural, communicative, and cognitive) explain variations in the psychological characteristics of entrepreneurs, including achievement, innovation, self-control, self-confidence, opportunism, autonomy/independence, and risk/uncertainty.

- Kroesen & Darson (2013) elaborated on the concept of capacity using a number of examples.

They proposed a strategy for promoting rural entrepreneurship among small farmers and professional practitioners through capacity building, reporting that education is the most important factor in rural entrepreneurship. According to their research, the introduction and step-by-step supply of technology at a small scale combined with the learning process and capacity building training, allow small farmers and technical practitioners to raise production, and progressively trigger an economic growth. This step-by-step approach is less dependent on foreign investment or microfinance. Instead, it relies on building capacity, boosting job creation and increasing the lure of life in rural areas.

- Rijkers and Costa (2012) in an article entitled "Gender and rural non-farm entrepreneurship" explored the role of gender in entrepreneurship. Based on the results of this paper, women's non-agricultural entrepreneurship is neither correlated with household composition nor academic achievement. With the exception of Indonesia, women's businesses tend to be smaller and less productive. The different productivity level of each worker was determined based on the sector and size. These disparities are not due to differences in capital intensity, improved returns to scale, human capital, or climatic features of domestic investment.

- Movahedi & Yaghoubi Farani (2012) introduce the barriers and limitations of women entrepreneurship in rural areas as follows:

- Population;
- Rural women's character and behavioral conditions;
- Family attributes;
- Skills and knowledge of rural women (education, experience and communication);
- Cultural and social conditions (community and village);
- Access to facilities and services for rural women (in the process of setting up, managing and developing business);
- Legal factors along with financial and economic parameters;
- Institutional and organizational factors;
- Geographical and environmental conditions (rural environment).

- Kalantaridis (2010) in a paper entitled "In-migration, entrepreneurship and rural–urban interdependencies: The case of East Cleveland, North East England", argues that immigration can change the conditions of entrepreneurship in areas with strong relationships and ample ++impact of developing local opportunity structures is relatively small. In 2010, Avramenko and Silver, in a research entitled " Rural entrepreneurship: expanding the horizons," proposed entrepreneurial incentive and supportive policies as a factor influencing entrepreneurship.

- Torimiroa & Dionco-Adetayo (2005) in an article entitled "Children's participation in entrepreneurship in rural communities" demonstrated that both children and their parents held favorable attitudes toward the participation of children in entrepreneurial activities. The age, level of education, attachment and attitude of children's parents toward entrepreneurship participation were major factors contributing to the involvement of children along with parents' age, monthly income, and the number of children, among other things.

- Sara Carter (1998), in a paper entitled " Portfolio entrepreneurship in the farm sector: indigenous growth in rural areas?", contended that personal characteristics and education and were main determinants of entrepreneurship. According to the results of this paper, successful entrepreneurs were distinguished by a set of occupational interests in terms of personal characteristics. They were also likely to be younger and have a degree in agriculture, management, marketing, and finance compared to their peers.

Sojasi Qeidari, Rokn al-Din Eftekhari & Pourtaheri (2014) embarked on developing and validating indicators of ecotourism entrepreneurship development in rural areas. Based on their findings, they asserted that green infrastructure, green technology, biodiversity, geographical diversity, ecotourism demand, competitiveness in ecotourism, proximity to markets, access to bank credits, high-risk investments, encouraging entrepreneurial culture, tax support and entrepreneurial insurance, ecotourism support of entrepreneurship, legal basis for ecotourism entrepreneurship, transparency of ecotourism entrepreneurship laws, expertise in ecotourism entrepreneurship, teaching ecotourism entrepreneurship skills, experience, intention and motivation for promoting ecotourism entrepreneurship, feasibility of ecotourism entrepreneurship, awareness and entrepreneurial creativity, sense of belonging, risk-taking, co-operation and participation and recognition of ecotourism opportunities were among the factors influencing rural entrepreneurship.

According to the results of this research, in which all entrepreneurship development indicators were above average, and among different dimensions, those related to legal policies and procedures were more important than other dimensions of

ecotourism entrepreneurship. Accordingly, the highest weight belonged to the indicators of ecotourism opportunity recognition and the lowest weight to green infrastructure indicator.

Haydari Sareban (2011), prioritized the barriers to women entrepreneurship in Ardebil province. According to the results of his research, the major obstacles to rural women's entrepreneurship were socio-cultural, individual, economic and psychological barriers.

- Kurd & Abtin (2013) studied the kay factors of rural entrepreneurship development in Sistan and Baluchestan province. According to their results, variables of empowering women and girls in rural areas and developing information technologies in villages were not significantly correlated with the development of rural entrepreneurship, but the variable of setting up growth centers in rural areas was significantly related to the development of rural entrepreneurship.

- Based on the study of Faraji Sabokbar et al. (2010), explanatory indicators for the assessment of rural entrepreneurship development includes access to education, counseling and experiences, skills and knowledge, access to capital, access to industry, access to physical infrastructure, social environment, innovation and creativity, self-esteem, future planning, production, sales and marketing of products. According to their results, Nazargholi, Aqcheh Ghia and Lachwan villages were ranked first to third, respectively.

Yaghoubi Farani et al. (2014) reported that personality traits, economic status and socio-cultural status of women were significantly correlated with their entrepreneurial level. However, they did not find any significant relationship between family status and entrepreneurial level. Also, based on the results of path analysis, economic status variables, personality traits and socio-cultural status of women had the highest impact on their entrepreneurship level, respectively, accounting for 40% of variations in the level of entrepreneurship.

-Namjouyan Shirazi (2014) stressed the integral role of funds in financing the development of small businesses and the realization of entrepreneurship in rural communities, asserting that establishing rural women's microfinance funds reinforced rural women's access to credit resources and enhanced social partnership, confidence and decision-making.

Papzan & Gravendi (2014) introduced rural marketing companies as a strategy for entrepreneurship and development of agricultural exploitation systems. The results of this article exhibited strategies that could be used to overcome barriers under the existing conditions and establish rural marketing companies in rural areas of Iran. Given their capacities, these companies can helps solve employment problems of agricultural graduates and rural producers to a large extent.

Saberian & Sabouri (2014) analyzed the determinants of rural women entrepreneurship development as a member of Semnan welfare funds. Based on the results, the characteristics of entrepreneurs were assigned to nine categories. Diligence, as the primary factor, explained 14% of the total variance, which indicates the importance of this factor. Other factors in the order of importance were the internal locus of control, risk-taking, financial risk-taking, innovation, ambiguity tolerance, creativity, perseverance, opportunism.

- Yadollahi Farsi & Razavi (2011) reported that human capital and social capital of entrepreneurs were significantly correlated with identified opportunities, the number of exploited opportunities and the sustainability of the business. Also, the results indicated that social network size was significantly correlated with success in entrepreneurship. Entrepreneurial skills and experience have a positive and significant relationship with entrepreneurship success.

The findings of Fazel Beigi & Yavari (2009) showed that policies designed to strengthen the culture of co-operation and cooperative system of a society (including skills and incentives for exploiting opportunities) have a significant effect on improving the level of entrepreneurial activities. In this regard, governments must provide the necessary support from various economic aspects - which are conducive to the advancement of cooperative and entrepreneurial activities. Ultimately, policies should be aimed at promoting investment in rural industries and stimulating people's incentives to invest in the early stages of investment and entrepreneurship.

Rokn al-Din Eftekhari et al. (2014) also explored this issue. The results of the analysis exhibited that from the viewpoint of both study groups (officials and business owners), all four factors (economic, social, institutional and environmental) influenced entrepreneurship development at a significance level of less than 0.05. As far as the effect of each factor on explaining the development of entrepreneurship is concerned, Tukey's test showed

that in the view of officials and business owners, the economic factor had the largest mean.

According to Rokn al-Din Eftekhari et al. (2014), based on the potentials and capacities of the region, the threshold of innovation and creativity in the agricultural sector of rural areas should be revisited to put forth appropriate policies aimed at overcoming constraints and using existing rural and agriculture facilities. The barriers to the development of agricultural entrepreneurship include severe rural poverty and absence of social and economic space, which contribute to the development of agricultural entrepreneurship.

The strong points including "sufficient financial capital, familiarity with new domestic markets and understanding the importance of product insurance" are some of domestic reasons that influence the development of agricultural entrepreneurship in the region. As far as opportunities are concerned, "the establishment of educational, promotional and counseling centers in the domain of agriculture is one of the main external factors to promote agricultural entrepreneurship; On the other hand, the inappropriate spatial distribution of resources, services and industry", which is rooted in the attitudes, policies and laws of urbanization, is one of the external factors that undermine entrepreneurship.

-Goldoost, Allahyari & Abedi (2014) undertook a fuzzy screening review of inhibitors of rural development entrepreneurship training in Guilan province. The results of their study showed that unfamiliarity of provincial authorities with the concept of entrepreneurship, absence of an entrepreneurial education system and the unfamiliarity of rural people with the principles of designing and setting up a new and entrepreneurial businesses have played a major role in the development of rural entrepreneurship in Guilan province. By analyzing the educational factors inhibiting the development of rural entrepreneurship in Guilan province, it will be possible to draw a roadmap for entrepreneurship and to capitalize on entrepreneurial opportunities.

Rezvani & Najarzadeh (2008) explored this issue in their research. According to their results, 33 percent of villagers were completely familiar, 18 percent familiar, 23 percent slightly familiar and 35 percent unfamiliar with entrepreneurial areas and skills. This situation is more or less the same for all indicators and study variables. In this regard, entrepreneurship training and preparation of the social and economic dimensions of villages to draw young, skilled and trained human resources to rural areas and engagement in agricultural activities can be considered as the main strategy for developing and strengthening entrepreneurship in these areas, which consequently leads to sustainable development.

3. Research Methodology

The research method was based on the research onion diagram (Sunders, 2009). Thus, it falls in the category of applied research. For this purpose, a deductive research approach was adopted. We used a mixed research method including descriptive-analytical methods and surveys. The data collection tool was a questionnaire. Also, we used library research and field studies for data collection. According to the above, a summary of research design elements in this study has been shown in accordance with Sunders' research onions diagram in Fig. 1.

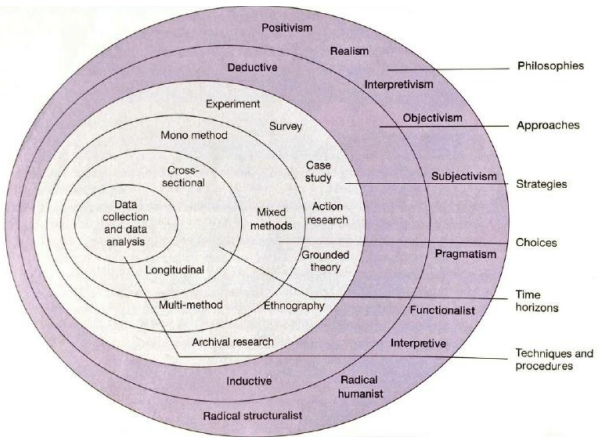

Figure 1. Research Onion
(Source: Sunders et al. 2009)

The statistical population of the study consisted of university experts in the field of rural entrepreneurship, rural entrepreneurs, rural managers and experts. The inclusion criteria were as follows:
1- A minimum bachelor's degree or its equivalent;
2. At least 10-year experience in rural entrepreneurship;
3. At least 5-years management experience in a organization, foundation, or rural institution (in the case of supervisory elites, at least 5-year experience as the faculty member of universities or research centers).
The face and content validity of the research questionnaire was evaluated based on the comments of professors and experts working in the field of rural management and the components extracted from previous research.
In this research, we examined the factors influencing the establishment of entrepreneurial opportunities, their internal relationships and priorities. To investigate the role of factors involved in the creation of entrepreneurial opportunities, we first identified underlying factors contributing to the creation of entrepreneurial opportunities by a review of previous studies (library research). Then, to evaluate and prioritize the proposed indicators and components, an integrated approach (ANP-DEMATEL) was used. Using DIMATEL method, the internal relationships between dimensions were analyzed with respect to the effect of these dimensions on each other. The output of this process has been shown in the relation-impact diagram. After determining the internal relationships between the factors, they should be weighed according to the objectives. This is conducted through paired comparisons and designing a relevant questionnaire. In the next step, to determine the priorities of the indicators, we used the network analysis method (given the relationship between factors and the structure of the matrix network), by constructing a super matrix derived from combining paired comparison and DIMATEL method, which specified the final weight of dimensions and their prioritization. Hence, the questionnaire distributed among the experts was made up of two sections. The first part comprised paired comparisons to determine the degree of importance of model components relative to each other, and the second part evaluated the impact of existing dimensions that were interacting with each other. Data were obtained directly from 30 specialists and experts. The reliability of the paired comparison questionnaire was confirmed through the inconsistency index and reliability of the DIMATEL questionnaire was endorsed by the experts. For calculating and analyzing data at different stages, Super Decision and Excel software were used.

4. Research Findings

After identifying the most important factors in creating rural entrepreneurship opportunities, in the first step the relative weights of factors were computed. This was conducted through paired comparisons of the factors based on the objective of the problem. The relative weights of the factors were determined based on the results obtained from the Super Decision software output. In the next step, using the DIMATEL method, the internal relationships between factors were determined based on the effect of these factors on each other. Considering the main objective of this research, the direct, indirect and overall impact coefficients for all factors influencing the creation of rural entrepreneurship opportunities are calculated based on the opinion of the selected experts. The strength of relations matrix based on the experts' opinions is shown in Table (3). It was obtained from determining the mean scores of experts. In this matrix, the input of each intersection indicates the influence of element in a row over other elements in that column (for example, the effect of individual dimension on the social-cultural dimension). A value of zero at each intersection indicates the lack of any interaction between dimensions.

Table 3. Average views of experts (matrix of the strength of system relationships based on experts' opinions
(Source: Research findings, 2018)

	Economic	**Sociocultural**	**Infrastructure**	**Individual**	**Political**
Economic	0	3	3.4	2.4	2.2
Sociocultural	2	0	1	3	1.2
Infrastructure	2.8	2	0	1.6	0.4
Individual	1.8	3	1	0	1
Political	1.8	1	1	0.2	0

After performing the calculations, the matrix of general relations was plotted. Based on experts' views, average score was considered as the threshold level. In this way, values below 4.430 were removed. Finally, in Table (4) and (5), the matrix of relative strength for the direct relations, the sum of the row (R) and column (C), and the relation-impact diagrams of dimensions based on the results are shown.

Table 4. Matrix of relative strength for direct relations of dimensions
(Source: Research findings, 2018)

	Economic	Sociocultural	Infrastructure	Individual	Political
Economic	5.055	7.885	6.738	6.723	4.927
Socio-cultural	5.202	0	0	5.843	0
Infrastructure	5.883	5.758	0	4.947	0
Individual	4.919	6.206	0	0	0
Political	0	0	0	0	0

Table 5- Calculating the sum of the row (R) and column (C). Determining the strength of relations and the effect of dimensions
(Source: Research findings, 2018)

	Political	Individual	Infrastructural	Socio-cultural	Economic
R	0	11.125	16.589	11.045	31.331
C	4.927	17.513	6.738	19.850	21.060
R+ C (relations)	4.927	28.639	23.328	30.895	52.391
R- C (impact)	-4.927	-6.387	9.850	-8.805	10.270

The impact-relation map (IRM) of DEMATEL is depicted in Fig. 2. This chart offers a graphical representation of the relationships between the factors influencing the creation of rural entrepreneurship opportunities. Based on the values of (R-C) in the vertical axis of the graph, it can be contended that the economic and infrastructural factors fall in the group of causes (with a positive R-C) and individual, sociocultural, and political factors in the group of effects (with a negative R-C). On the other hand, the economic factor (with the highest R+C value in the horizontal axis of the graph) has the highest interaction or relation, while the political factor reveals the least interaction with other factors.

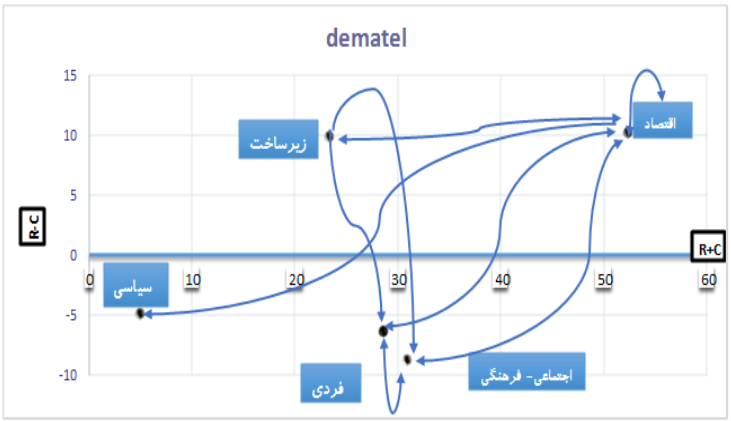

Figure 2- Impact-relation map of factors influencing the creation of rural entrepreneurship opportunities
(Source: Research findings, 2018)

After normalization, the matrix of general relations obtained from the DEMATEL method were used in the super matrix of the problem structure. Finally, the weighted super matrix is multiplied by itself

until its permanent distribution becomes convergent. This is done by the Super Decision software. According to the final matrix, we can extract the weight of the dimensions. As shown in Table 6, the economic and political factors have the highest and lowest priorities, respectively.

Table 6. Prioritization of the factors influencing the creation of rural entrepreneurship opportunities
(Source: Research findings, 2018)

Indices	Normalized weight	Rank
Economic	0.2787	1
Socio-cultural	0.2019	3
Infrastructural	0.2028	2
Individual	0.1912	4
Political	0.1253	5

As can be seen, the factors obtained from a review of literature were prioritized using an integrated analytic network process (ANP) and DIMATEL in terms of importance. According to the results, the economic factor has the highest importance followed by infrastructural, socio-cultural and individual factors (with a slight weight difference). The political component with a value of 0.1253 not only has the lowest importance, but also is drastically different from other factors in terms of weight.

5. Discussion and Conclusion

The main goal of this research was to identify and prioritize the factors influencing the creation of rural entrepreneurship opportunities. In order to achieve this goal, given the relationship between these factors, an integrated analytic network process (ANP) and DEMATEL (DEMATEL - ANP) was adopted. The calculations and analyses of data at different stages were performed using Super Decision and Excel software. Based on the final super matrix, the economic factor (weight =0.2787)
and the political factor (weight= 1.0253) had the highest and lowest priority, respectively. Hence, based on the results, the most important factor in bolstering entrepreneurial opportunities is the economic factor. However, since the economic conditions of villages in Iran is not favorable, the following strategies are recommended to improve the economic situation in rural areas:

- Given the low level of savings and capital in rural areas, the support of state institutions, the provision of interest-free or low-interest loans by banks and removing unnecessary bureaucracies could be helpful to small businesses.
- Considering the small financial support of villagers, the establishment of a fiscal support and insurance fund to reinforce rural entrepreneurs can help alleviate their concerns.
- Development of employment in villages through nurturing a cooperative and entrepreneurship environment and creation of entrepreneurship parks in cities and other regions along with the support of local graduates for setting up rural businesses.

Reinforcing entrepreneurship in the agricultural sector will not be attainable without increasing the profits of investment in agriculture. This growth of profits also requires reforming the pricing system, fostering price support and allocating agricultural subsidies.

- Drafting the employment development and agricultural entrepreneurship document;
- Identifying and introducing new agricultural businesses in the world, especially in service industries
- Facilitating access to loans and banking services for all farmers;
- Establishing institutions that are directly related to agricultural entrepreneurship in the region;
- Eliminating unnecessary official bureaucracies by establishing links between different levels of agricultural development in the region;
- Supporting the cooperation of the agricultural sector and local organizations (cooperatives and enterprises, etc.) in the region;
- Designing an appropriate institutional system and supporting entrepreneurial companies in the agricultural NGOs in the region;
- Implementing and introducing successful entrepreneurial farmers.
- Developing strategic plans for the adoption of technology and new methods of production in agriculture.
- Given the shortage of water in the villages, modification of the cultivation models and

movement from the agricultural livelihood to industrial and economic agriculture is proposed.
-Expanding the cultivation of greenhouse crops, poultry farms and livestock breeding using the government support
- Developing small and early-yielding industries as well as processing industries
- Governmental support for the development of handicrafts such as rug weaving considering that many villagers are skilled in this industry.
- The development of processing and packaging industries of agricultural products is recommended.
-The obscurity of many investment opportunities in many villages, especially in the tourism or crafts sector, requires investors to identify the potentials and opportunities in the village. Attempts should be made to invite and encourage investors bring their investment to villages through advertising, so that essential capitals and investments are flown to rural areas through. In this regard, financial incentives and tax cuts can be a highly motivating factor.
- Entrepreneurship training, especially entrepreneurship in the field of tourism, especially in tourist destination villages.

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شناسایی و اولویت‌بندی شاخص‌های موثر بر ایجاد فرصت‌های کارآفرینی روستایی در ایران

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چکیده مبسوط

۱. مقدمه

امروزه توسعه روستایی بیش از پیش وابسته به کارآفرینی است. کارآفرینی روستایی یک عنصر بالقوه برای اشتغال، یک استراتژی کلیدی برای جلوگیری از ناآرامی روستایی، یک ابزار برای بهبود درآمد مردم، افزایش دامنه اشتغال زنان و به تبع آن افزایش درآمد و استقلال آنها و عاملی برای حمایت اجتماعی است و بطور کلی به عنوان یک وسیله به منظور بهبود کیفیت زندگی برای افراد، خانواده ها و جوامع برای حفظ یک اقتصاد سالم و محیط زیست می‌باشد. اولین گام برای اجرای کارآفرینی روستایی شناسایی عوامل موثر و شاخص های ایجاد کننده فرصت های کارآفرینی می باشد. ازهمین رو هدف این پژوهش، شناسایی و تبیین مولفه های تاثیرگذار و اولویت بندی و ارائه نوع ارتباط بین مولفه ها در راستای کمک به بهبود وضعیت روستاها می باشد. نتایج این تحقیق به طور خاص می تواند مورد استفاده مدیران و تصمیم گیران در حوزه ی روستایی قرار گیرد. کارآفرینی پدیده‌ای چند بعدی است که توافق عمومی در مورد آن وجود ندارد. نه تنها از نظر روانشناسی، انسانشناسی، اقتصاد و مطالعات تجاری دیدگاههای متفاوتی در مورد کارآفرینی وجود دارد، بلکه به نظر میرسد دیدگاه غالب در مورد تعریف کارآفرینی، نیز در زمانها و مکانهای مختلف، متفاوت است. این خود موجب شده تعاریف متفاوتی از کارآفرینی مطرح شود و نکات کلیدی هر تعریف نیز متفاوت باشد؛ از جمله ایجاد سازمانهای جدید، ترکیبی از عوامل موجود، اکتشاف و بهره ها برداری از فرصت، تحمل عدم قطعیت،گرد هم آوردن عوامل تولید و ... .

۲. مبانی نظری تحقیق

با بررسی جامع و کامل در پیشینه و ادبیات موضوع، عوامل اقتصادی، اجتماعی-فرهنگی، زیرساختی، فردی و سیاسی به عنوان مهمترین شاخص‌های موثر بر ایجاد فرصت‌های کارآفرینی روستایی انتخاب گردیدند. برای ایجاد کسب و کار و کارآفرینی وجود پشتوانه اقتصادی بسیار حیاتی و ضروری می باشد. داشتن سرمایه مالی کافی و استقلال مالی فرد و یا پشتوانه اقتصادی توسط خانواده و دوستان می تواند در تسریع فرآیند کارآفرینی بسیار موثر واقع شود. علاوه بر آن وجود تسهیلات مالی و بانکی وجود سرمایه گذاران بخش خصوصی و محلی نیز بر میزان کارآفرینی یک مکان می تواند اثرگذار باشد. عوامل اجتماعی و فرهنگی، از ابعاد فراموش‌شده کارآفرینی‌اند که تا به امروز ناشی از نگاه تک بعدی به کارآفرینی بوده است. نخستین گام در توسعهٔ کارآفرینی، شناسایی نیازها و آموزش مهار تهای کارآفرینی است. رابطه قوی بین فرهنگ مردم و تمایل به کارآفرینی وجود دارد. کارآفرینی به لحاظ اجتماعی، منافع و آثار مثبتی در جامعه روستایی دارد، سود اجتماعی را از طریق دولت عاید جامعه می‌کند که به نوعی نشان‌دهنده توسعه اجتماعی- اقتصادی جامعه است. جوامع روستایی به دلیل ماهیت وجودی و کارکردی و ساختاری خود، ارتباط تنگاتنگی با محیط پیرامونی دارند؛ در نتیجه توجه به عوامل محیطی و زیرساختی در توسعه کارآفرینی اهمیت بالایی دارد. حمایتهای کارآفرینانه، شامل هدایت فعالیت های عمومی و خصوصی، مانند خدمات تجاری، تمرکز بر کارآفرینان، ایجاد محیط و زیرساخت های مثبت، ایجاد شبکه ها و تشکیل گروههای مشاور به منظور حمایت از کارآفرینان می شوند. در خصوص زیرساختهای کارآفرینانه، باید نیازهای خاص کارآفرینی که برای کارآفرینان مهم هستند، تأمین شود.

*. نویسندهٔ مسئول:
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مهارت های فردی، باعث تاثیر بسزایی در انجام مطلوب و بهینه کارها، ایجاد رضایتمندی و ارتقاء انگیزه در افراد می‌گردد که در نداشتن سیاست معین و شفاف کارآفرینی و خوداشتغالی، توسعه‌ی این بخش را با مشکل روبه رو کرده و بهره وری در کسب و کارهای خوداشتغال و بنگاه های اقتصادی کوچک و متوسط موجود را کاهش می دهد.

۳. روش تحقیق

همانگونه که بیان گردید در این پژوهش به بررسی شاخص‌های موثر بر ایجاد فرصت‌های کارآفرینی و روابط درونی و اولویت‌دهی آنها پرداخته شد. ازهمین رو ابتدا از طریق پیشینه تحقیق شاخص‌های موثر بر ایجاد فرصت‌های کارآفرینی شناسایی گردیده و سپس برای ارزیابی و اولویت‌بندی شاخص ها و مولفه های پیشنهادی از روش ترکیبی ANP-DEMATEL استفاده شده است. با استفاده از روش دیماتل روابط درونی بین ابعاد با توجه به تاثیر این ابعاد بر یکدیگر بدست آمد. روش این تحیق از لحاظ جهت‌گیری، کاربردی و نوع روش تحقیق ترکیبی بوده و از جمله تحقیقات توصیفی-تحلیلی و از انواع پیمایشی است. رویکرد پژوهش نیز قیاسی می‌باشد. ابزار گردآوری اطلاعات پرسشنامه می‌باشد. همچنین محیط پژوهش با توجه به اهداف کتابخانه‌ای و میدانی است. جامعه آماری تحقیق، متخصصان دانشگاهی در حوزه کارآفرینی روستایی، کارآفرینان روستایی، مدیران و کارشناسان روستائی به تعداد ۳۰ نفر می‌باشند.

۴. بحث و نتیجه‌گیری

نتایج بیانگرآنست که با توجه به نمودار رابطه-تاثیر، عوامل اقتصادی و زیرساختی در گروه علت ها و عوامل فردی، اجتماعی- فرهنگی و سیاسی در گروه معلول‌ها قرار گزفتند. از طرفی عامل اقتصادی بیشترین تعامل یا رابطه و عامل سیاسی کمترین تعامل را با سایر عامل‌ها دارد. همچنین نتایج روش ترکیبی تحلیل شبکه‌ای و دیماتل حاکی ازآن بود که مولفه اقتصادی دارای بیشترین اهمیت بوده و پس از آن مولفه-های زیرساختی، اجتماعی-فرهنگی و فردی (با مقدار بسیار کم از نظر تفاوت وزنی) قرار داشته و مولفه سیاسی با مقدار ۰.۱۲۵۳ علاوه بر اینکه کمترین اهمیت را دارا می باشد از نظر مقدار وزنی نیز اختلاف فاحشی با دیگر مولفه ها دارد.

در مجموع می توان بیان نمود که بدلیل مشکلات بسیار در حوزه ی روستایی چون کمبود اشتغال، مهاجرت نیروی کار روستایی به شهر، کم شدن احساس تعلق و ... در راستای دستیابی به توسعه پایدار روستایی توجه به کارآفرینی و امکان پیاده سازی آن ضروری است. همچنین با ریشه یابی علل و شناخت شاخص‌های عوامل موثر بر کارآفرینی روستایی امکان ارائه راهکارهایی در جهت ساماندهی آن فراهم می‌گردد،که با به کارگیری این راهکارها از سوی سیاستگذاران، برنامه ریزان، مجموعه مدیران روستایی، می‌توان گامی در جهت توسعه پایدار روستایی برداشت. به محققان پیشنهاد می گردد در تحقیقات آتی سنجش تاثیرات هم زمان عوامل موثر بر ایجاد فرصت‌های کارآفرینی و نحوه ارتباط و تاثیر گذاری آنها بر یکدیگر را با استفاده از دیگر روش ها و رویکردها همچون رویکرد سیستمی و یا تکنیک ISM انجام دهند.

کلمات کلیدی: فرصت‌های کارآفرینی روستایی، عوامل موثر، روش ترکیبی تحلیل شبکه ای-دیمتل، ایران.

تشکر و قدرانی

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Land Subsidence Vulnerability Assessment of Rural Settlements in Fars Province

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Abstract

Purpose- Land subsidence is caused by natural factors and human activities around the world. Fars Province, located in the south of Iran, is subject to land subsidence due to the uncontrolled exploitation of groundwater, causing damages to the population and human settlements and also environmental, social and economic areas.

Design/methodology/approach- The present research is descriptive in terms of describing land subsidence in the case study region, whereas it is also analytical as time series analysis techniques based on Radar Interferometry (InSAR) is applied to monitor temporal changes in subsidence in Darab and Fasa Plains, including 470 rural points. Using 8 ENVISAT ASAR images spanning between 2005 and 2010, nine Interferograms were processed. In the study area. Geographic Information System (GIS) is then used to study groundwater level decline at the well locations in a 24-year period (from 1991 to 2015).

Findings- The results of the research confirm that there is a significant correlation between groundwater water level decline and land surface subsidence. Time series analysis of the processed Interferograms indicate the mean displacement velocity map, demonstrating the maximum subsidence rate of 25 cm/yr. The InSAR analysis reveal within the study area subsidence rate of 25 cm/year in 24 years period and locally exceeding 30 cm/yr in the last decade. This area of significant subsidence is limited in its spatial extent to the agricultural land and is partly influenced by the large-scale over-exploitation of groundwater resources in the region study. The temporal and areal relationships of subsidence and groundwater level data suggest that a significant part of the observed subsidence in the Darab region is caused by intense groundwater extraction which has led to widespread compaction within the upper parts of the up to 300m. Socioeconomic analysis and the subsidence hazard map show that 105523 people are generally at risk of subsidence, of 65068 who are at high risk. In addition, there are 2679 socioeconomic infrastructures such as public service at risk of damage by land subsidence.

Research limitations/implications- Limitation in In SAR data access, especially for long-term data was one of the main limitations in land subsidence research and also in this research.

Practical implications- Integrated water resource management and the observed extraction of groundwater could influence the subsidence rate in the regions exposed to land subsidence.

Originality/value- This research will be important to provide vulnerability in regions with groundwater overexploitation.

Key words- Vulnerability, Land subsidence, Socio-economic consequences, Radar interferometry.

Paper type- Scientific & Research.

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1- Introduction

Natural hazards annually threaten people's lives in all around the world including Iran. Actions taken in order to reduce the risk will protect the lives. Communities, government officials and development organizations can minimize the risk of these crisis by understanding and predicting the future consequences of hazards (Thomas & Anderson, 2005). Due to its proximity to the underlying substances as a threat to infrastructures and center of human activity on one hand and its vulnerability due to the lack of planning on the other hand, this phenomenon is considered as a concern.

Land subsidence caused by over-exploitation of groundwater is one of the natural hazards with devastating consequences in all around the world including Unites States of America, Japan, Italy, Thailand and Indonesia (Larson, Bas Agaoglu & Marino, 2001). Large cracks and fractures on the ground surface caused by land subsidence are considered as its consequences. Moreover, land subsidence causes significant changes in the earth's hydrologic properties such as the direction and speed of the groundwater flow (Holzer & Galloway, 2005). Other subsidence consequences also include damage to engineered structures such as buildings, roadways, pipelines and well casings. The areas with a lack of rainfall suffering from drought are mainly subject to land subsidence. In Iran land subsidence due to the groundwater level withdrawal was first reported in Rafsanjan in 1967. Monitoring the subsidence, including studying its rate and spatial extent ,has been performed in many parts of Iran (e.g. Dehghani, Valadanzoej, Entezam, Saattchi & Shemshaki, 2010; Haghighatmehr et al., 2011; Sharifikia, Malamiri & Shayan, 2011). Studying the geomorphological phenomenon caused by land subsidence in terms of recognition tools are largely parallel with the issue of identifying the subsidence rate which mainly faces differential radar interferometry technique in the Iranian context (Sharifikia, Afzali & Shayan, 2015). Radar interferometry as the most appropriate monitoring method is able to measure the surface deformation at high spatial resolution with sub-centimeter accuracy. Various studies have been conducted in different parts of Iran such as Tehran (Karimi, Ghanbari & Amiri, 2013; Khamechiyan, Mohmoudpour, Nikudel & Ghassemi, 2016; Sharifikia, Malamiri & Shayan, 2013), Yazd (Amighpey & Arabi, 2016), Mashhad (Dehghani, 2015; Kazemi, Parhizkar, Ajdari & Emamgholizadeh, 2015) and Ardebil (Amirahmadi, Maali Ahari, & Ahmadi, 2013). These studies mainly focus on measuring the subsidence rate and its behavior in time using time series analysis.

However, the studies conducted to identify and extract the effects of subsidence have received less attention because few researchers have addressed them (Komakpanah, 2006). Moreover, the influence of subsidence on human societies has been less studied.

In Iran, the overdraft of groundwater produces major groundwater problems in Fars Province today. Since about 1950, the use of groundwater for irrigation in this province has increased rapidly (Esp. in Fasa, Darab, Marvdasht and Shiraz Plains). When the pumping is excessive, the management of groundwater resources in the basin presents numerous problems with various degree of complexity in each area. In Iran, Regional Water Organization (RWO) in every province is responsible for surface and groundwater management. Fasa and Darab are under the responsibility of RWO in Fars Province. The base data and information for this study were supplied by this organization.

Land subsidence existing throughout of Fasa and Darab Plains has increased in the recent decade. In most of the reports published about the Fasa and Darab Plains and other plains in Fars, groundwater withdrawal has been mentioned as the main factor of land subsidence. Overdraft of groundwater in long period is Fasa and Darab Plains for agriculture proposes is the main cause of subsidence.

The main purpose of this paper is to study the deformation rate and its temporal behavior in Fasa and Darab Plains located in Fars Province in Iran. The results obtained from the time series analysis will then be compared with the groundwater level fluctuations. Finally, the vulnerability assessment of human settlement regarding subsidence phenomenon in the study area will be performed.

However, we must consider that the severity of a natural phenomenon is not seen as a disaster, but its consequences are significant. However, as the human population increases and urban constructions and also consequently urban areas develop, the potential damages in comparison with the number of approaches applied for decreasing the consequences increase (Mahalati, 1994).

Moreover, there have been various studies conducted around the world such as Mexico (Castellazzi et al., 2016; Chaussard, Wdowinski, Cabral-Cano & Amelung, 2014; Sowter et al, 2016), Greece (Nikos et al., 2016), America (Sharma, Jones, Dudas, Bawden & Deverel, 2016), China (Chend-sheng et al., 2014; Gong et al., 2015; Lu et al., 2014), and Indonesia (Setyawan, Fukuda, Nishijima & Kazama, 2014) to study the land subsidence.

2. Research Theoretical Literature

2.1. Interferometry Time Series

SAR Interferometry makes use of the phase measurements of two Single Look Complex (SLC) SAR images acquired at different times to produce the deformation map. The phase difference known as *interferometric phase* composes of different components including deformation ($\phi_{D,x,i}$), earth curvature ($\phi_{Curv,x,i}$), topographic effect ($\phi_{topo,x,i}$), atmospheric signal ($\phi_{Atm,x,i}$), and noise phenomenon due to decorrelation ($\phi_{N,x,i}$) as shown in Eq. 1 (see below):

$$\psi_{x,i} = W\{\phi_{D,x,i} + \phi_{Curv,x,i} + \Delta\phi_{topo,x,i} + \Delta\phi_{Atm,x,i} + \phi_{N,x,i}\} \quad (1)$$

In order to extract the deformation, all components should be estimated and removed from the interferometric phase so as to generate the differential interferogram. Time series analysis using a significant number of interferograms allows us to monitor the long-term as well as short-term behavior. The main idea in time-series analysis is to invert the interferograms to obtain the deformation at each date of acquisition using the least-squares method. Suppose D = $[d_1, d_2, d_3 \dots]$ is the vector of the deformation on each acquisition date to be estimated and I = $[\, i_{12}, i_{23}, i_{34} \dots]$ is the observation vector containing the range changes obtained from the interferograms. The relation between vectors *D* and *I* is:

$$AD = I \quad (2)$$

Where *A* is the design matrix. In the inversion solution, the deformation of the first date was set to zero ($d_1 = 0$). To mitigate the atmospheric artefacts, noise and unwrapping errors, the smoothing constraint is incorporated into the inversion problem (e.g. Lundgren et al., 2001; Schmidt & Burgmann, 2003). Using a finite difference approximation for the second-order differential of the time-series as a smoothing constraint, Eq. (1) is written as Eq (2):

$$\left(\frac{A}{\gamma^2 \partial^2/\partial t^2}\right) D = \begin{pmatrix} I \\ 0 \end{pmatrix} \quad (3)$$

Where γ is the smoothing factor, a trade-off methodology should be applied to select the most appropriate smoothing factor regarding the reduction of the errors as well as the preservation of the subtle deformation signal (Dehghani, Valadan Zoej, Entezam, Mansourian & Saatchi, 2009). There are two main products as the results of time series analysis indicate: i) subsidence rate (long-term behavior), which highlights the main deformation features, and ii) deformation time series (short-term behavior).

In the present study, the interferometry time series analysis will be employed to extract the subsidence rate as well as the subsidence time series. The block diagram of the proposed method for subsidence vulnerability assessment of settlements in Fars Plaines is presented in Fig. 1. In the first step, the radar images are processed to generate interferograms. The interferograms should be characterized by small spatial and temporal baselines to mitigate the spatial and temporal decorrelation. The processed interferograms are then inverted to obtain the subsidence at each acquisition date using Small Baseline Subset (SBAS) algorithm, which has already been introduced. The subsidence rate extracted from the time series analysis is then used to identify the areas at high risk. On the other hand, the groundwater level information at piezometric wells are compared with the interferometry results in order to study the subsidence causes. The comparison results as well as the subsidence risk map are finally applied to assess the vulnerability of human settlements in the study area.

A new smoothing constraint must be added for each additional acquisition date. If the acquisition dates are not evenly spaced, which is usually the case, the irregular time spacing must be included in the finite difference expression by applying the minimum curvature concept, that is, *constant velocity*.

The smoothing factor,γ should be determined optimally. The optimal estimation of the smoothing factor results in the smooth deformation time-series, whereas the non-linear deformation components are preserved. The time-series results can become

rough by decreasing the smoothing factor. In this case, the observed fluctuations in the results are mostly due to the sources of error in each interferogram. If a large smoothing factor is selected, any non-linear deformation will be damped, and the over weighted smoothing will force the time-series to be a straight line. If the smoothing is infinite, the best-fit average deformation rate is achieved. Indeed, a trade-off methodology should be applied to select the most appropriate smoothing factor regarding the reduction of the errors as well as the preservation of the subtle deformation signal. There are several approaches to determine the optimum smoothing factor; one of these is to plot the overall RMS (misfit) that results from least-squares solution against different corresponding smoothing factors. The RMS is the root mean square of the residuals in least-squares solution as follows:

$$\text{rms}=\sqrt{\frac{\sum_{i=1}^{n}(\hat{r}_i)^2}{n}}, \qquad (3)$$

Where, according to Eq. (1), $\hat{r}$ is defined as

$$\hat{r} = A\widehat{D} - I \qquad (4)$$

Where $\widehat{D}$ is estimated phase via the least-squares solution. The misfit will be minimum with a zero smoothing factor and will increase with higher values. The resulting plot is a curve with an elbow. Although the choice of the optimum smoothing factor is arbitrary, depending on the plot scale, the middle point on the curve is an estimate for the smoothing factor, which is a good compromise between the removal of noisy fluctuations and the preservation of the nonlinear seasonal deformation. Finally, the entire time-series process is repeated using the optimally selected smoothing factor.

Considering the theoretical framework of this research, a conceptual model of research has been presented (see Fig. 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 assessment of the vulnerability of human settlements regarding land subsidence.

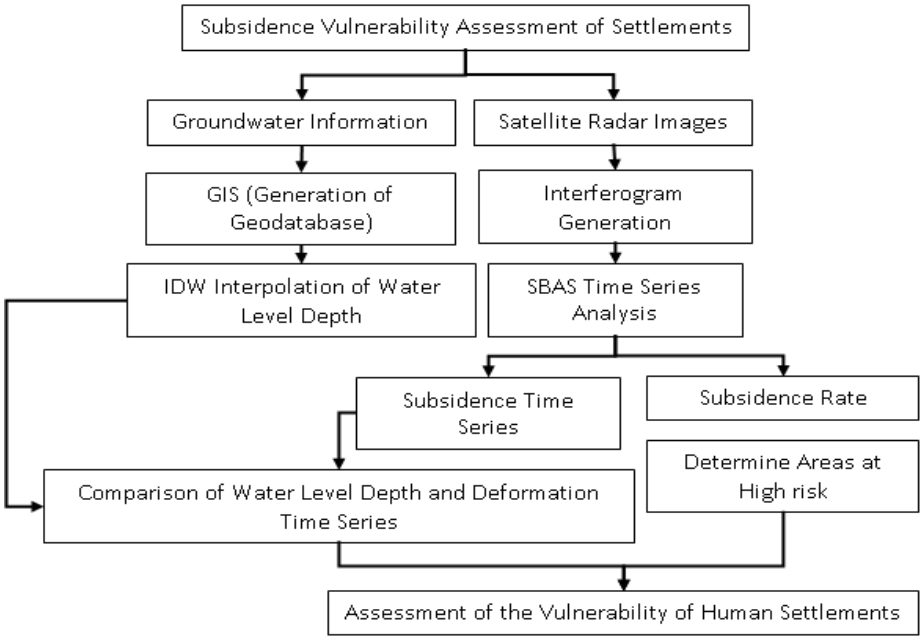


Figure 1. Block diagram of the proposed method for assessment of the vulnerability of human settlements regarding land subsidence

(Source: Research findings, 2018)

2.2. Preliminary research

Land subsidence causes damages in infrastructures and buildings in many regions in world (Abidin et al., 2001; Shamshiri et al., 2014). Monitoring the spatial magnitude and temporal evolution of surface deformation associated with water overexploitation is critical to mitigate hazards associated with this phenomenon (Herrera, Fernández, Tomás, Cooksley & Mulas, 2009; Huang, Shu & Yang, 2012).

Among the ground and space-based geodetic methods used for measuring land subsidence (see Abidin et al., 2008), space-borne interferometric

synthetic aperture radar (InSAR) enables a unique imaging capability for the assessment of subsidence in response to water overexploitation from subsurface reservoirs and ground water (Galloway et al., 1998; Teatini et al., 2005). Differential Interferometric SAR (DInSAR) and advanced multi-temporal interferometry methods (e.g., permanent/persistent scatterer interferometry (Ferretti, Prati & Rocca, 2001) and small baseline subsets (Berardino, Fornaro, Lanari & Sansosti, 2002) provide high spatial-resolution (up to 25 cm) techniques for accurately mapping the temporal and spatial distribution patterns of deformation (sub-centimetre to sub-millimetre accuracy) (Casu, Manzo & Lanari, 2006; Ferretti et al., 2007; Manzo, Fialko, Casu, Pepe & Lanari, 2012), allowing a better characterization of the elastic and inelastic properties of aquifer systems with high degrees of spatial resolution in both space and time (Canova, Tolomei, Salvi, Toscani & Seno, 2012; Ezquerro et al., 2014; Hoffmann, Zebker, Galloway & Amelung, 2001; Rigo, Béjar-Pizarro & Martínez-Díaz, 2013; Tomás et al., 2010; Tung et al., 2016). InSAR measurements also help to identify the influence of geological structures on spatial patterns of subsidence (Bawden, Thatcher, Stein, Hudnut & Peltzer, 2001; Burbey, 2008; Calderhead, Therrien, Rivera, Martel & Garfias, 2011; Motagh et al., 2007). Decades of extensive groundwater extraction from aquifers, which are used mainly for agricultural activities, have caused substantial land subsidence in developed groundwater basins across Iran in which it exceeded 20–30 cm/yr at some locations (e.g., Akbari & Motagh, 2012; Anderssohn et al., 2008; Davoodijam, Motagh & Momeni, 2015; Dehghani et al., 2009; Dehghani et al., 2013; Motagh et al., 2007).

3. Research Methodology

3.1. Geographical Scope of the Research

Fars Province with an area of 133,000 Km2 is located in the south of Iran. It is divided into 29 counties, 93 cities, 204 districts and 8349 villages. In the analysis of human settlements, 470 villages placed in the radar image frames are considered within the study area. This study focuses on the Darab Plain, which is located in the Fras Province in the southeast of Iran (see Fig. 2).

The study area contains parts of Fasa Plain named Sheshdeh-Ghrebolagh and Darab Plain. Figure 2 illustrates the study area in which the radar image frame is depicted. The study area is covered by the cultivated lands, and the groundwater is extracted mainly for the irrigation purposes.

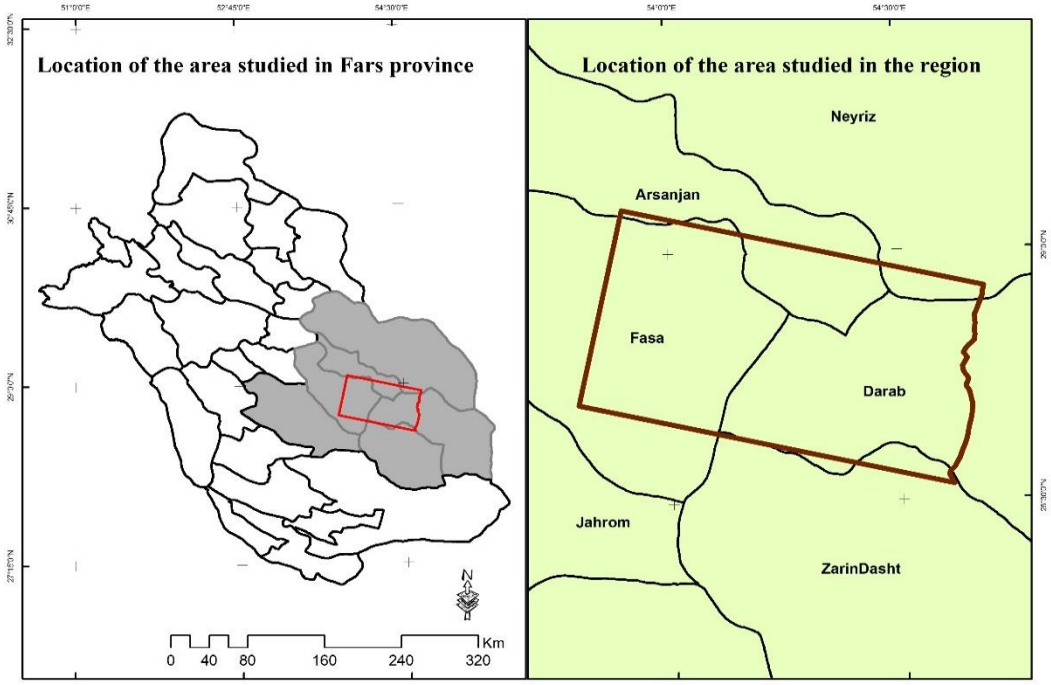


Figure 2. Location of the area studied in the Fars Province and region
(Source: Research findings, 2018)

3.2. Methodology

The research methodology is implemented into five phases: data preparation (wells data in region and ENVISAT ASAR images spanning between 2005 and 2010), modelling of level decline, Interferogram generation by MATLAB, the accuracy assessment of the model, the data integration, and the preparation of landslide hazard maps. The overall methodology is shown in Fig. 1. The main steps taken include:

a. Volume loss of the aquifer

Groundwater level measurements carried out in wells are of key importance for the interpretation of surface deformation in developed ground water basins (Hoffmann et al., 2003; Lu & Danskin, 2001; Tomás et al., 2010). The storage coefficient or storativity (S) is one of the main hydraulic parameters which can be used for a better understanding of reservoir properties and deformability characteristics of an aquifer system (Riley, 1969). It is defined as the volume of water of an aquifer released from or taken into storage Vw per unit area A per unit change in the hydraulic head h (Bundschuh, 2010):

$$S = \frac{d}{dh} \cdot \left(\frac{Vw}{A}\right) \qquad (5)$$

Fars RWO (FRWO), water basin database for surface and groundwater, is used to analysis in Fasa and Darab are under the responsibility of RWO in Fars Province. The base data and information for this study were supplied by this organization.

The comparison of subsidence and groundwater levels in the underlying aquifer system has been successfully used in previous research to identify the strong correlation between the two (Chai et al., 2004; Galloway et al.,1998; Ketelaar, 2009). Groundwater level measurements data was performed by WRO in Fars RWO (FRWO). The volumetric groundwater extractions in Fasa and Darab wells were extracted from FRWO database. The assessment of using the groundwater resources was based on the extraction from private and public registered (legal) wells. To evaluate the extraction of the legal wells, an updated dataset containing 434 operational wells was obtained from the FRWO. For each well, the location, capacity, extraction depth and several other parameters were processed. The depth and capacity of these wells are also shown in Fig. *. Finally, the extraction volumes were plotted in Fasa-Darab plain area by Inver distance weighted (IDW) interpolation method in GIS.

b. InSAR analysis

To derive the spatial and temporal changes in land subsidence in the study area, we utilized 5 sets of SAR images, including 9 ENVISAT ASAR images from a descending track covering 2005–2010.

InSAR technique is a method where phase information of radar carrier is used to obtain the land deformation. In the InSAR technique, if the ground deformation is happened during the two images being captured, the interferometric fringes generated by these two images mainly include some phase information as mentioned in Eq. 1.

4. Research Findings

4.1. Time Series Analysis Results

Using the time series analysis, the short-term as well as the long-term behaviors of the subsidence were studied. In order to highlight the major features of the deformation, the mean displacement velocity map was generated using the time series analysis results (Fig. 3). Accordingly, the maximum subsidence rate is 25 cm/yr. which is the cause for a concern.

Another time series analysis for products is the subsidence time series, showing the short-term behavior of the deformation. The subsidence time series compared with the groundwater level fluctuations at piezometric wells are presented in Fig. 4. The piezometric wells are located in different parts of the subsidence area (Fig 3). The subsidence time series show a decreasing trend, indicating that the aquifer system is compacted at a constant rate. According to the time series results, the seasonal fluctuations are insignificant, showing that the aquifer system is not sufficiently recharged in the recovery seasons.

Alongside the subsidence behavior, the groundwater depth time series at piezometric wells are illustrated in Fig. 4. In all piezometric wells, the water level significantly declines due to the over-exploitation of groundwater for the agricultural purposes. The increase in the cultivated area for comparative advantage of agricultural crops in Fars Province in last decades especially in study region is the main cause of over-exploitation (Qorbani, Rafiei & Amjadi, 2014)

Most parts of the Fars Province, including the study area, is subject to the groundwater depth as shown in Fig. 5. The situation is even worse in the south of the province. The maps in Fig. 5 are generated from the piezometric wells using Inverse Distance Weighted (IDW) interpolation method. Due to the

high correlation between water level decline and subsidence phenomenon, we expect to observe the subsidence in other parts of the province. The subsidence, however, is a function of not only the water level decline but also other factors including soil types composing the aquifer system. The investigation of the relation between soil types and subsidence rate is considered as future work.

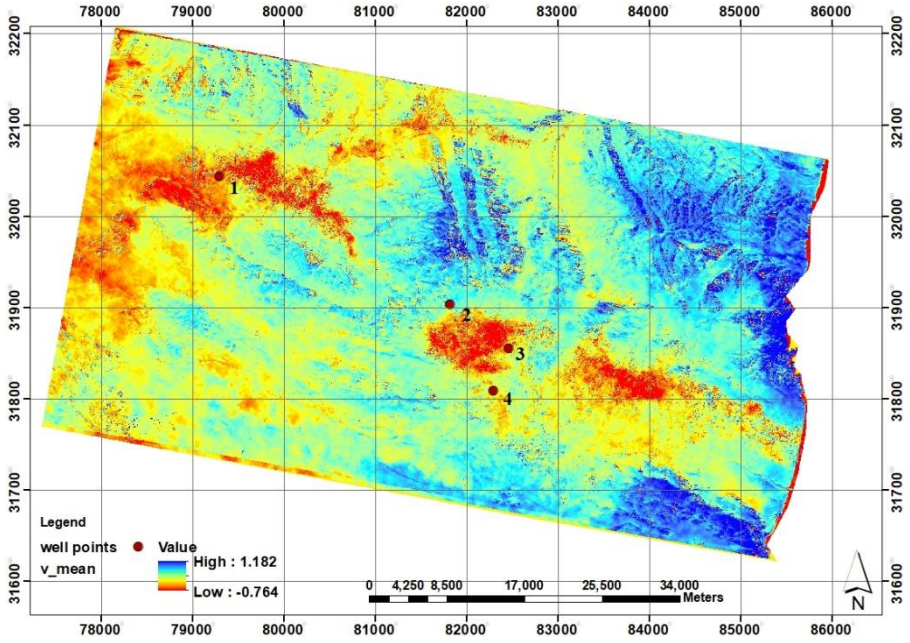
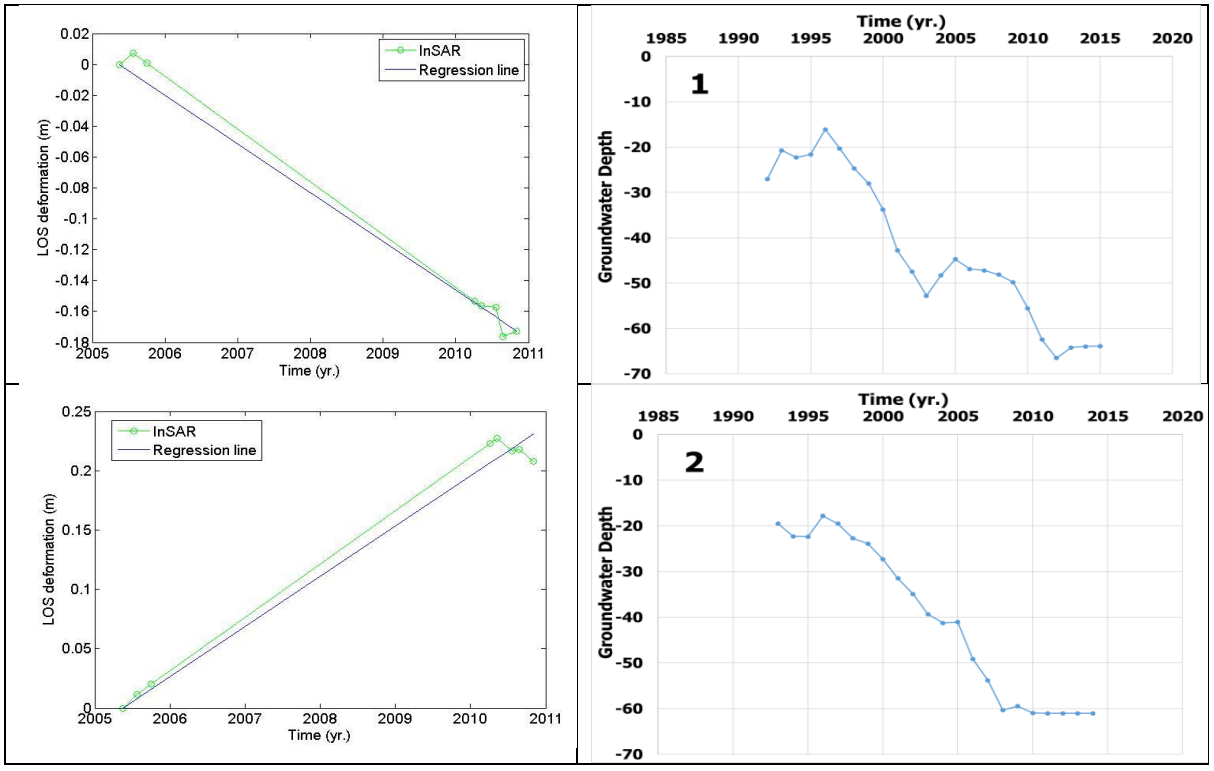


Figure 3. Mean displacement velocity map. The red areas within the center and the south east of the map illustrates the subsidence signal
(Source: Research findings, 2018)



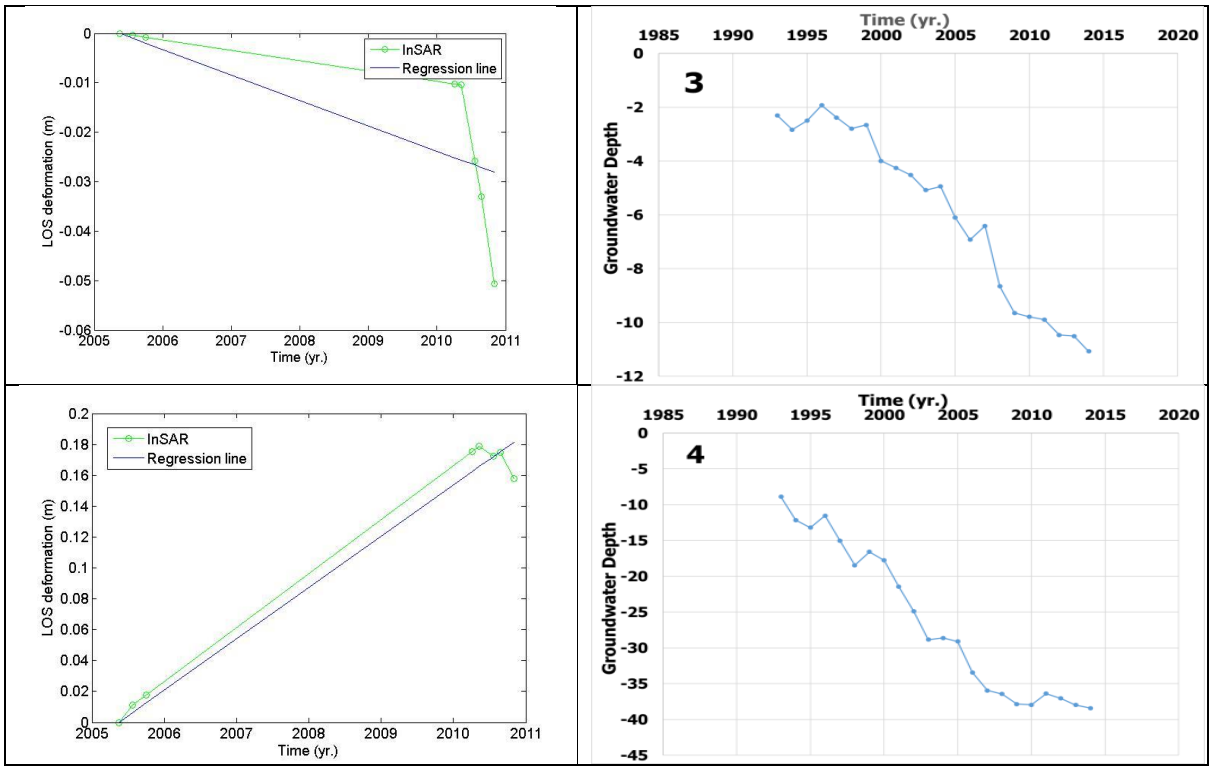


Figure 4. Comparison between the time series obtained from radar interferometry method and well points
(Source: Research findings, 2018)

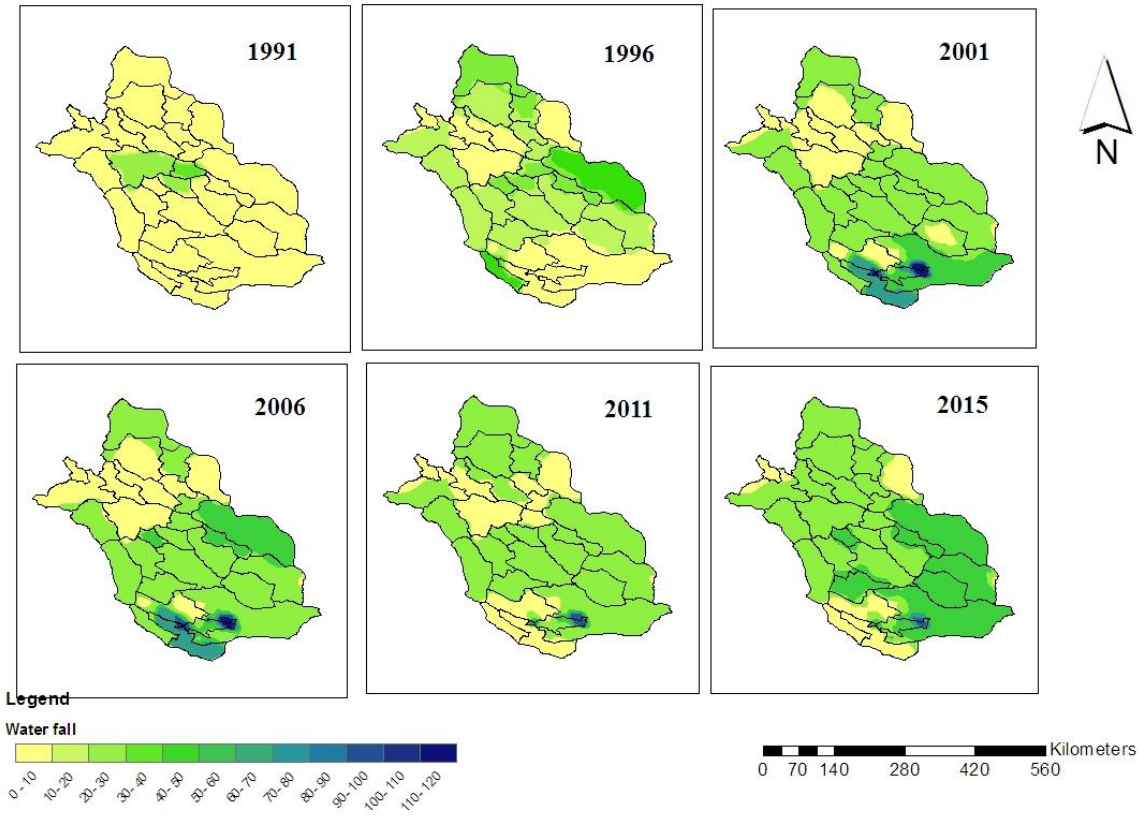


Figure 5. Groundwater depth in the Fars Province
(Source: Research findings, 2018)

4.2. Subsidence Hazard Zoning

The subsidence rate estimated from the time series analysis results is applied for the subsidence hazard zoning. The rate map is categorized into three main classes, including high-risk, medium risk and no-risk areas based on the deformation rate (see Table 1).

Table 1. Classification of the subsidence rate into three main classes
(Source: Research findings, 2018)

Hazard zoning	The subsidence by cm
High-risk	-0.41 to -0.25
Medium risk	-0.25 to -0.1
No-risk	-0.1 and more

As seen in Fig. 6, the residential areas presented as black dots are partly concentrated on the areas with high and medium risks. The main parts of the residential areas, however, are located in the areas with no-risk. It should be noted that the areas with high and medium risks are mainly covered by the cultivated lands rather than the residential areas.

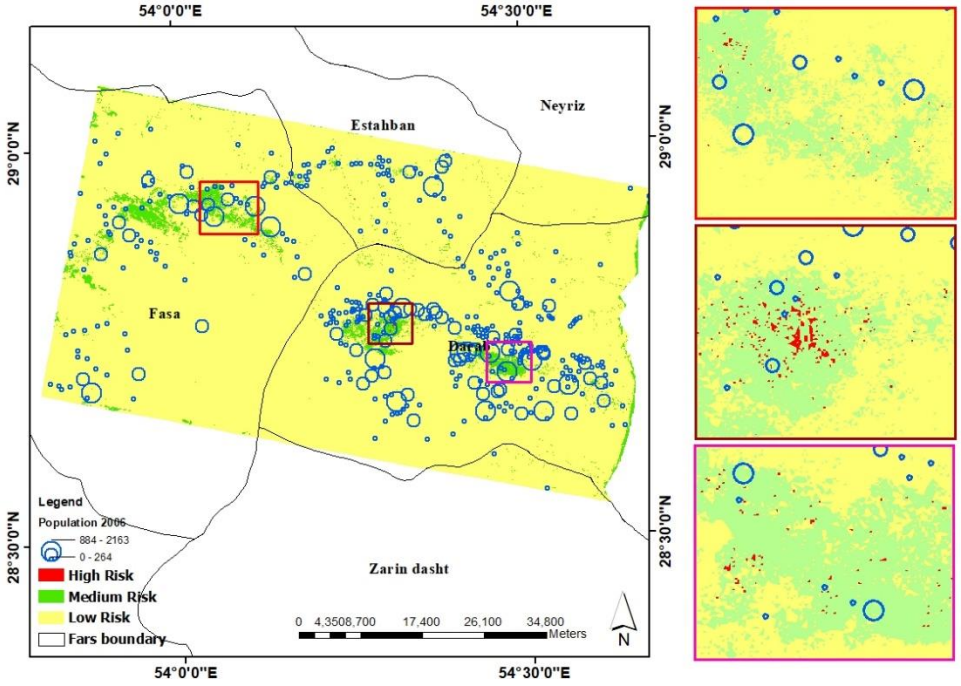


Figure 6. Subsidence zoning result that is showing three main classes: high risk (red), medium risk (green) and no-risk areas (yellow). Black dots illustrate the residential areas.
(Source: Research findings, 2018)

5. Conclusions and Discussion

The agricultural sector uses up to 92 percent of Iran's water. The desire for improved agricultural productivity has encouraged the growth of cultivated areas and infrastructure across the country, especially in Fras Province. However, this sector is not yet mechanized and is suffering from outdated farming machineries and practices leading to very low efficiency in irrigation and production. The agricultural sector in Fars Province is economically inefficient and its contribution to gross domestic product has decreased over time. Irrigated agriculture is the main practice, while the economic return on water use in this sector is significantly low and crop patterns across the counties are inappropriate and incompatible with water availability conditions in most areas. Recently for two decades, food security has been an enduring challenge in Iran. Limited water availability, high population and political instability make Iran vulnerable to food shortages. Therefore, food security has ranked high on the agendas of Iran government and the desire for self-sufficiency in food has been a common theme with dramatic

impacts on water resources. The role of Fars Province in the production of strategic crops causes over-exploitation of groundwater resource. In addition, farmer's interest to improving their quality of life and increasing their income's, with expansion of the agricultural farms and cultivated areas across the counties, so increase in over-extraction of groundwater resource cause to land subsidence in different region of Fars.

This study concludes that subsidence has occurred in the study area by using the results of the interferogram and time series analysis and the results obtained from the analysis of well data. We use the census data to assess the vulnerability of human settlements caused by land subsidence occurring. Because our unit of analysis is the frame of satellite images; therefore, the number of villages in each county will be different. In this regard, the comparison of the number socio-economic infrastructure of each county will not be a practically possible. Table 2 shows the cities and the number of villages of each of them.

Table 2. Main cities and number of villages in Study region

(Source: Research findings, 2018)

County	Main city	Number of rural settlements	Rural Population - 2016	Urban Population -2016
Estahban	Estahban	40	20343	48416
Darab	Darab	320	111105	90384
Zarindasht	Zarindasht	2	28788	44411
Fasa	Fasa	105	63589	141598
Neyriz	Neyriz	3	48550	64748
Total	6	470	272375	389557

In the past two decades, land subsidence and ground failure in the Darab-Fasa region has caused significant damages to the existing roads and structures. This phenomenon is a direct result of the aforementioned subsidence. In fact, earth rupture has affected numerous settlements in the region, including rural and urbans. All human settlements including urban and rural contains infrastructure, such as educational centers, cultural infrastructure, healthcare system, etc. to meet the population needs in these regions. Now hazards and natural disasters can destroy the infrastructure and will suffer the population in the regions. Table 3 shows the different infrastructures in all counties.

Table 3. Number of infrastructures by counties

(Source: Research findings, 2018)

Infrastructure city	Transportation	Health	Electricity Water, gas	Political official	Cultural	Educational	Housing	Household	Population
Estahban	12	10	24	16	49	10	752	867	3069
Darab	179	187	263	200	458	199	15373	16674	62670
Zarindasht	0	0	2	2	3	1	22	22	71
Fasa	79	138	141	95	170	91	9914	10956	39662
Nyriz	0	0	2	0	4	1	14	14	51
Total	270	335	432	313	684	302	26075	28533	105523

As shown in table 3, there are many public infrastructures in the study area which are treated by land subsidence. Without implementation integrated groundwater management plans, it is estimated that continued pressure on the groundwater resources in Fars Province with rates of extraction far beyond those of natural recharge might cause serious damages to urban/rural settlements, agricultural and industrial areas in the region. The maximum annual subsidence rate of 41 mm/yr inferred based on InSAR measurements in this study is one of the highest rates of deformation ever recorded for groundwater basins. Land subsidence and earth cracks resulting from over-exploitation of water are serious geologic hazards, the impacts of which will increase as more water is withdrawn from aquifers in the Darab-Fasa region without sufficient replacement.

Long-term and large-scale over-exploitation of groundwater resources is the main factor causing land subsidence in different regions in the world and Iran. Natural recharge of the aquifer system, which is mainly provided by rainfall, infiltration of irrigation waters, leakage from the bed of the major rivers, and subsurface flow from the mountain ranges bounding the northern part of the plain, was not able to balance the resource exploitation. Land subsidence observed in the recent decades on the many areas of Iran and in Fars Province has been qualitatively and quantitatively interpreted by acting a large-scale multi-temporal analyses of data regarding soil properties, groundwater levels and rural settlements population trends. The current study focused on the relationship between the groundwater level decline and the land subsidence in Sheshdeh and Darab /planes. Major steps for the analysis have been the processing of InSAR data (2005 ~ 2010) and GIS using spatial analysis methods, the modelling of the groundwater lowering, and rural settlement changes induced by the changes of population in recent census (2005 & 2011), and the mapping of all variables with a geographical information system. Results by groundwater wells point during study period showed about 2.85cm withdrawal in water level in year. Also, the InSAR data analysis indicated nearly 25cm subsidence in study planes.

The extent and distribution of land subsidence over the studied area have been demonstrated as the result of the combined action of groundwater lowering, which produce and increase subsidence area's in case study planes.

The socioeconomic analysis along with the subsidence hazard map found that 105523 people were generally at risk of subsidence, of 65068 whom were at high risk. Furthermore, there are 2679 socioeconomic infrastructures such as public service (school, bank branches, post office, gas station, etc.). In Fasa-Darab Plain, where most of rural areas are in the high risk zones, need to adoptable policies and plans to reduction the occurrence of the crisis, efforts should be made to reduce any damage in human settlement and infrastructure in these areas.

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ارزیابی آسیب‌پذیری سکونتگاه‌های روستایی ناشی از فرونشست زمین در استان فارس

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چکیده مبسوط

۱. مقدمه

پدیده فرونشست زمین ناشی از عوامل طبیعی و فعالیت‌های انسانی در نقاط مختلف دنیا و در طی سال‌های اخیر در کشور ایران بخصوص استان فارس به علت برداشت بی‌رویه از آب‌های زیرزمینی، خشک‌سالی و عوامل دیگر پدیدار شده است و باعث آسیب‌رسانی به نقاط جمعیتی و سکونتگاه‌های انسانی و خسارت‌های زیست‌محیطی، اجتماعی و اقتصادی شده است. در ایران فرونشست زمین، پیشینه سی‌وچند ساله دارد و اگر زمانی این پدیده تنها در برخی از استان‌ها مانند کرمان و یزد رخ می‌داد، اینک استان‌های اصفهان، خراسان، تهران و غیره نیز متحمل فرونشست هستند و این مشکل به طور روزافزون در استان‌های بیشتری خودنمایی می‌کند. در همه فرونشست‌هایی که در ایران رخ می‌دهد، استخراج بی‌رویه آب‌های زیرزمینی، تنها عامل یا مهم‌ترین عامل ایجاد فرونشست است. پیامدهای محیطی پدیده فرونشست، اساساً شامل آسیب رساندن به سازه‌های دست‌ساز بشر مانند ساختمان‌ها، خیابان‌ها، پل‌ها و خطوط انتقال نیرو، ایجاد شکاف‌هایی بر روی سطح زمین و سیلاب است. در ایران مطالعه پدیده فرونشست به سبب فراگیری فضایی آن مورد توجه طیف وسیعی از محققان قرار گرفته، مطالعات نسبتاً زیادی صورت گرفته است.

۲. مبانی نظری تحقیق

روش تداخل‌سنجی راداری (InSAR) مبتنی بر سنجش‌ازدور راداری، در سال‌های اخیر به‌عنوان یکی از روش‌های غیر ژئودتیک در شناسایی تغییرات ارتفاعی در سطح زمین مطرح شده که با توجه به مزایایی که نسبت به دیگر روش‌ها دارد، بسیار مورد توجه قرار گرفته است. این روش در میان روش‌های زمینی و فضایی به‌عنوان کارآمدترین روش برای اندازه‌گیری تغییرات سطح زمین با دقت و قدرت تفکیک مکانی بسیار بالا به شمار می‌رود. از جمله مزایای این روش می‌توان به‌دقت بسیار بالا، پوشش وسیع، قدرت تفکیک مکانی بالا و نداشتن نیاز به کار میدانی، مقرون به‌صرفه بودن و امکان دستیابی به اطلاعات در هر شرایط آب و هوایی اشاره کرد. در این فناوری با استفاده از تلفیق داده‌های به دست آمده از سامانه‌های تصویربرداری رادار نصب شده بر سکوهای ماهواره‌ای یا هواپیمایی، حرکت، ارتفاع و تغییرات سطح زمین نقشه‌برداری می‌شوند. اساس کار در اندازه‌گیری تغییرات سطح زمین، استفاده از تصاویر تکراری رادار است. تصویری که از یک منطقه در یک زمان مشخص برداشت می‌شود، با تصویری که در زمان دیگر توسط همان سنجنده رادار برداشت می‌شود، تلفیق می‌شود. روش تداخل‌سنجی راداری، شناسایی مناطق در حال نشست و تعیین وسعت آن‌ها را ممکن می‌سازد. روش‌های تداخل‌سنجی راداری سنتی، به طور گسترده‌ای به منظور مشخص کردن فشردگی سفره آب زیرزمینی در مقیاس زمانی زیاد، مورد استفاده قرار گرفته‌اند.

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۳. روش تحقیق

تحلیل سری زمانی در تعیین نرخ فرونشست- در این پژوهش با استفاده از تحلیل سری زمانی مبتنی بر تکنیک تداخل‌سنجی راداری به پایش تغییرات زمانی فرونشست در دشت فسا و داراب که شامل ۴۷۰ نقطه روستایی می‌باشد؛ پرداخته شد. با استفاده از ۸ تصویر ENVISAT ASAR و تشکیل ۹ تداخل‌نگاشت، تحلیل سری زمانی در بازه زمانی ۲۰۰۵ تا ۲۰۱۰ انجام و مقدار میانگین ۲۵ سانتی‌متر سالیانه فرونشست زمین در این دشت‌ها استخراج گردید. با استفاده از تکنیک آنالیز سری زمانی که به صورت یک برنامه کدنویسی شده در نرم‌افزار Matlab اجرا شد و بکار بردن ۹ اینترفروگرام تغییرات سطح ناشی از فرونشست را در منطقه دشت شش‌ده و قره‌بلاغ فسا و دشت داراب مورد پایش قرار گرفت. برای ایجاد آنالیز سری زمانی InSAR به منظور پایش فرونشست دشت‌های فسا و داراب ۸ تصویر خام ENVISAT ASAR اخذ شده بین سال‌های ۲۰۰۵ تا ۲۰۱۰ مورد استفاده و سپس با استفاده از این ۸ تصویر، ۱۴ اینتروگرام به کمک نرم‌افزار Sarscape تشکیل شد و به دلیل وجود خطاهای زیاد از جمله نویز، خطاهای اتمسفری و ... ۵ اینترفروگرام از تحلیل‌ها کنار گذاشته شد و در نهایت تحلیل‌ها با ۹ اینترفروگرام انجام شد. برای ایجاد سری زمانی تغییر شکل عمل معکوس‌سازی اینترفروگرام‌ها به همراه شرط نرم‌شدگی انجام شد. با استفاده از فاکتور نرم‌کنندگی بهینه به مقدار ۰.۰۵ خطاها از جمله خطاهای اتمسفری، بازیابی فاز و خطاهای باقیمانده تا حد نسبتاً زیادی کاهش یافت.

برای نمایش پهنه‌بندی خطر فرونشست زمین با استفاده از نرم‌افزار GISبه تهیه نقشه پهنه‌بندی خطر بر روی تداخل‌نگاشت میانگین فرونشست که حاصل از تحلیل سری زمانی می‌باشد؛ پرداخته شد و منطقه مورد مطالعه در ۳ طبقه پرخطر، خطر متوسط و بدون خطر پهنه‌بندی گردید.

۴. بحث و نتیجه‌گیری

هدف پژوهش حاضر ارزیابی آسیب‌پذیری سکونتگاه‌های انسانی ناشی از فرونشست زمین در دشت فسا-داراب در استان فارس بود. برای دستیابی به این هدف ابتدا با تحلیل داده‌های نقاط چاه در بازه زمانی ۲۴ ساله ۹۴-۷۰ به بررسی میزان افت سطح آب‌های زیرزمینی پرداخته شد و مشخص گردید که سطح آب در دشت مورد مطالعه کاهش یافته و سطح آب چاه‌ها در بازه زمانی ۱۳۸۰ تا ۱۳۹۰ به بیشترین حد کاهش خود رسیده‌اند؛ که می‌تواند متأثر از سیاست‌های خودکفایی تولید محصول استراتژیک گندم در این استان و فشار بیش از حد به منابع آب‌های زیرزمینی در این سال‌ها باشد. همچنین با استفاده از تحلیل سری زمانی مبتنی بر تداخل‌سنجی راداری میزان فرونشست در دشت فسا و داراب به‌صورت میانگین ۲۵ سانتی‌متر سالیانه فرونشست زمین در بازه زمانی ۲۰۰۵ تا ۲۰۱۰ استخراج شد. مقایسه بین تحلیل‌های مستخرج از داده‌های نقاط چاه و تصاویر ماهواره‌ای نیز مؤکد رابطه بین پایین آمدن سطح آب‌های زیرزمینی و فرونشست زمین در منطقه مورد مطالعه است. در نهایت با استفاده از داده‌های مرکز آمار ایران به تفکیک نقاط روستایی به ارزیابی آسیب‌پذیری اقتصادی و اجتماعی سکونتگاه‌های انسانی در منطقه مورد مطالعه پرداخته شد بر اساس این تحلیل‌ها و با استفاده از نقشه پهنه‌بندی خطر فرونشست مشخص شد که به‌طورکلی ۱۰۵۵۲۳ نفر در محدوده خطر فرونشست زندگی می‌کنند که ۶۵۰۶۸ نفر آن در پهنه پرخطر قرار می‌گیرند. همچنین به ترتیب ۲۳۳۶ و ۳۴۳ زیرساخت و سرمایه اقتصادی در این پهنه قرار می‌گیرند که بیشترین تعداد در پهنه پرخطر واقع شده‌اند. در نهایت باید گفت که بیشتر نقاط روستایی منطقه مورد مطالعه در پهنه‌بندی خطر فرونشست، در پهنه پرخطر قرار می‌گیرند و ضروری است سازمان‌های و نهادهای متولی با اتخاذ سیاست‌ها و برنامه‌ریزی‌های مناسب، پیش از وقوع بحران درصدد کاهش هرگونه آسیب به سکونتگاه‌های انسانی، جمعیت و زیرساخت‌های موجود در این مناطق باشند.

کلیدواژه؛ فرونشست، سنجش‌ازدور، تداخل سنجی راداری، اینترفروگرام، دشت فسا-داراب.

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Explaining the Landscape Identity Components in the Tourist Villages with Valuable Texture in Iran

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Abstract
Purpose- Examination and recognition of the processes and mechanisms governing the physical environment of villages and the factors of rural landscape structure have its specific and unique characteristics. These valuable features are applicable in the research process, planning, and plans approaches, as well as in spatial planning to pay for the open environment and rural landscape development. Therefore, the main objective of the research is recognition of the landscape identity components in the tourism villages with valuable texture. These components can be used in the plans and texture restoration of the villages to have a sustainable landscape.
Design/methodology/approach- The research is a descriptive-analytic study with the quantitative method by applying a questionnaire that completed by university's professors and authorities of organs that are related to valuable textures with this important question: what are the landscape identity components and which one of them is so important? By identifying the components, extracting the items and operating the components, collecting and analyzing the data through the SPSS software, performing the ANOVA test and Tukey's test, the components of landscape was identified. These components are readability, vitality, beauty, security and safety, diversity and variety, belonging, accessibility, cultural history, semantics, visual proportions, and physical quality, social, economic, and environmental. Finally, their significance has been determined relative to each other.
Finding- The main hypothesis was the importance of the economic (functional-activity) and perceptual components that are based on the findings of the research which ultimately have been ranked in the Tukey's test table based on the importance of ranking. The ten components in the second column of the components are the most important and the three components in the first column are less important components and two common components are in the first and second columns. The results showed that the economic component (performance-activity) was the most important of all with an average value of 2.61. Within the perceptual components; the historical-cultural component with an average value of 2.55 ranked after the economic component (first rank) and social component (second) as the third important component and the average value of social component was obtained 2.55, so it can be said that the hypothesis was confirmed. According to the results, to have a sustainable perspective for the future, all these components should be considered more prominently in the plans and projects than in the past. While the same research has already not been done on landscape identity in villages, then this research can be the beginning of development and applied research in rural regions.
Keywords- Landscape, Landscape identity, Village landscape, Landscape identity components, Iran.
Paper type- Scientific & Research.

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1. Introduction

No identity is usually due to cultural defeated, disbelief in themselves, the use of machinery and automation, migration and cultural change, and the ineffectiveness of cultural and developmental policies in the landscape of tourist villages, meaning that the physical and structure of villages in Iran are being defaced with the influence of technology, urban's culture and landscapes, along with the degradation of cultural and native values for the inhabitants of the villages. The continuation of this trend will far villages away from their original identity and landscape following the cities while some of these textures continue to life due to architectural capabilities and architectural values. Therefore, in physical development plans, valuable texture needs to be considered and valuable rural texture has a special importance, so that in addition to meeting the daily and basic needs of their inhabitants, the structural, physical and cultural identity of the village should also be considered with a deeper insight than the past. The main purpose of the plans is to organize the valuable rural texture, providing background for authentication and providing the possibility of preserving the valuable texture and value of rural architecture by restoring texture structure with a new opinion and solution to meet the demands, thoughts and new livelihoods and with respect to the physical originality and social relationships existing in the village (Jam kasra, 2010).

Today, recognition and the determination of the pattern of landscape identity and its revival have become an essential requirement in the planning and policy of human settlements. The identity of settlements is responsible for explaining the values, norms, and human-social relationships in spatial construction as the most significant spatial representation. Since the identity is a category of traits and attributes that identify a person or community or phenomenon from individuals and society, the village also becomes personified and independent according to this criterion. This is important in tourist villages with remarkable pulls. The role of identity is so important in terms of the nature of rural tourism in the realization and the manifestation of its belief and sustainable identify. One of the most important aspects of identity is the identity of the landscape that manifests itself in the space. Landscape identity can be determined in the form of the physical structure of the rural settlement which is influenced by social, historical, geographical, planning, etc. factors. Therefore, landscape identity means the landscape of a place and location and is the boundary to which a person can distinguish a place from other places so that it has a distinctive, unique or at least a specific characteristic. The basic belief is that villages with a functional nature of tourism, if they have a well-defined identity with a good definition, will be sustainable and will remain viable in the life and identity restoration. On the other hand, because after the disappearance or neglect of the spatial identity of the tourist landscapes, the structure and function of them disappeared and eventually the tourism and the main identity of the region or village also disappeared, which would endanger the stability of tourism. All studies have focused on issues such as the conservation and reservation, rehabilitation and improvement of valuable texture in rural regions because tourism increases the quality of life for residents and reduces the differences between rural and urban areas. It seems important to note that tourism cannot be a dominant sector of the region, but it may be a driver of other branches of the regional economic (Pakurar & Oláh, 2008). Many studies have focused on tourism and its impact on the sustainable development of the villages, as Henning (1996), in an investigation in the rural area of Louisiana, found that the frequent entry of tourists had very good and positive effects among the large rural areas. It was found that regional and local markets have been created to offer local and native products in most of rural areas (Rahmani et al., 2016). Certainly, tourism can be an important component of rural development and management plans (Henning, 1996). Henning(1996) also found that rural tourism is an important force for development, especially for villages with limited development choices and can consider it as an elixir for their development. Rural tourism has increasingly boosted the economic potential and bio-potential in rural areas, driving the lives of settlements and improving the living conditions of rural communities (Briedenhann, 2004). Jurowski (1996) states that rural tourism can sustain or increase local resources if it is properly planned and managed (Jurowski, 1996). Therefore, in this research, the aim is to consider the rural valuable texture beyond what others have dealt with. The fact is that the formation of such villages can be derived from the identity of the landscape that shaped it.

Therefore, identification of constructive components of landscape identity in such villages is essential. Thus, the question is: what are the components of landscape identity in the tourist villages and which one of them is the most important?

2. Research Theoretical Literature

2.1. Landscape Identity

The identity of the places depends on the three factors, namely, human, physical, and human-made factors but these factors can lead to identity as understood by humans; on the other hand, the identity of space includes two parts in relation to humans: i) the identity of place and ii) the identify placer. Placer identity is associated with the memories of people about which location and place identity also distinguish space from other spaces, which is not related to the memory. Basically, all the experts in this field believe that the identity of space is formed in relation to human. "Human transmits the specification of the object by the process of perception with the aid of the senses to the brain and after adapting its reserves in memory with their founding, evaluates and identifies it. Then, after interaction with the human being and the environment (experience and behavior) they get a sense of that phenomenon. Since then, human behavior and activities are not based on reality and objectivity, but it is on the basis of his own experiences and thoughts. An identity that is only recognized by the researcher at a time is only a constant part of the quality. What can define the living and dynamic quality of identity is the mind involved with the phenomenon which has always been influenced by it and can understand the trend of the changes.

According to Yi-Tofun 1, collective memory has a close relationship with personality and identity, which also creates spatial identity that will enhance the sense of place. The consequence of maintaining and enhancing identity is essentially to increase the sense of belonging to the place and increase the participation of individuals which can be effective in various respects including increasing morale of participation, trying to keep clean the environment, and etc. What makes a work appearance in public with or without identity is its belonging to a collective and stable identity. In this view, the effect of identity is a work that is in the line of collective identity because a historical construction is in a historical context and an unidentified work is a work that the identity conflict with collective identity such as a modern construction in a historical context (Parvizi, Bomanian, Mahdavi Nejad ,2016).

Wagner also believes that time, place, human, and performance create an indiscriminate identity. Therefore, the meaning and the action of the factors that are integrated to each other must be considered in understanding the identity of the place. As a whole, the identity of the place is indiscriminately linked to each other in our understanding. Physical landscape and activities and meanings of raw materials are the identity of place, and the dialectic between them is the structural relations of this identity. Semantics is the most effective factor in the formation of the identity of the place, the local identity and the identity of the landscape in a place (Adab, 2013).

Based on Alexander (1965), identity in the environment manifests itself as a logical connection and a sense of belonging created between the individual and its environment. This relationship is based on the deep knowledge and environmental recognition, and it has the ability to understand the differentiation of that environment to other environments. According to Kocher Marcus, the environment is initially identified by the individual and then the process of psychopathology will deal with the location. In this way, a person's interest will be formed with the losing of time in a place of dignity.

Place belonging is one of the most important environmental and landscape impacts that is closely related to the identity of the place and the relationship is a link between humans and the environment, and as a result of this relationship, the environment becomes a psychological harbor, and place depending is formed. According to Walter Bor, identity is the small and large differences that make it a recognizable place and creates belonging to the environment. The specificity of each environment and landscape means avoiding uniformity, diversity and attractiveness. It can be created in the shape and manner of placing the spaces (Aghakhani & Baghdadi, 2014).

According to Ghotbi,(2008) landscape identity is the small and big differences that make it possible to recognize a place and the belonging to the environment and create a sense of depending to the environment. Finally, according to Dr. Mortaza Tavakoli, landscape identity means the meaning of the landscape of a place and is the boundary to which a person can recognize a place from other places so that having at least one or more specifics. All of the above mentioned points are definitions of landscape identity. Finally, what a researcher

presents from landscape identity is in fact the exact address of what has happened in the past, and what is going to happen in the future based on their studies and knowledge and their findings. The structure was formed and powered in the past, incomplete or complete, grown and grew up and manifested in an objective and subjective manner in a perspective that has manifested itself. It naturally has constructive components that are effective not only in the formation of identity, but also in the direction of uniqueness of a particular landscape or place so that they also establish the branding basis of a place. All of these components include the framework quality and intuitive proportion, human, institutional, historical, cultural, social, distinct features of the environment, vitality, beauty, diversity and variety, sensory richness, security and integrity, flexibility, belonging sense, accessibility, utility and efficiency, compatibility, durability, semantic, neutrality, permeability, sustainability, efficiency, environmental, and economic are most important depending on the geographic characteristics of a site or texture, and a number of components are more important and others are weaker. For example, according to the discussion of tourist villages, these villages somehow often focus on four functional-physical activity, historical, cultural, economic, and environmental elements, which, according to the researcher, this is the main weakness of the improvements plans and the lack of consideration of other actual components. The potential exists in these villages, such as perceptual components can greatly weaken these plans. Hence, in this paper, identifying the components of landscape identity was considered in valuable texture of villages from the perspective of not only rehabilitation but also the identity.

2.2. The factors shaping the identity of the landscape

1) Physical identity and visual proportions: every village can be evaluated from a structural-physical point in different time scales. The measurement tools of these reagents include factors that have affected the components and totality of the village from the past to the present. Among the most important of these elements is the buildings around them. The factors that affect physical identification of rural identities are the location of these buildings, combining them with their adjacent spaces, the scope and details of the scenes on a variety of scales (Zeinali Ghotbabadi, 2015).

2) Compatibility: The desirability of existing activities in space and the performance of the space indicates the proper use of space from this quality.

3) Permeability: Accessibility to space (physical and visual) and accessibility to space functions are primary prerequisites for the utility of a space that affects space desirability.

4) Variety and diversity: Activities and spatial diversity are among the factors that increase the attractiveness of the environment and the landscape and the possibility of increasing the number of population.

5) Lividness: The possibility of the presence of different people, from different ages and classes, increase the desirability and vitality of the rural spaces. The persistent presence of individuals increases the possibilities of social encounters and this factor contributes to the dynamics of space. The factors influencing the presence of individuals and the continuity of this presence are influenced by the sociality of space.

6) Flexibility: The possibility of changes in space regarding to the needs of individuals, as well as the possibility of changes in the functions in space, are a positive feature of rural spaces. Also, the possibility of using it in different situations and different hours of the day indicates the flexibility of space (Rafiean, Taghvaei, Khademi, & Alipour, 2012).

7) Readability: This is a clear and legible image of the environment or perspective which provides perception for a place to be understood and can influence the way of understanding of the opportunities and situations that an environment provides. The perspective of the rural spaces and the possibility of its role on the minds of observers and presenters is one of the characteristics that affects people's sense from a place and sense of belonging to space. Human defines an objective for themselves based on a perception of the realities or phenomena of the environment. However, based on their personal and collective experiences of the past and present, they have a mental image of the phenomenon to which they face. The meaning of the identity is the conformance of objectivity with its mental image and the continuation of this adaptation in the future. The mental image of a person is influenced by perceptual power, interpersonal skills, personality, values and culture. Therefore, a mental image involves all the peripheral experiences of the individual, and sometimes takes on the symbolic aspect and becomes part of the human subconscious. On this basis, it can be said

that the mental image is the result of a two-way and continuous process between the observer and their environment. The environment manifests itself with its manifestations and creates a relationship in the observer's mind between them and their experiences. The observer selects some of the agents of the environment. It brings them to the system in their minds, and it means it is based on mental reserves (Zeinali ghotabadi, 2015).

8) Visual proportions: The dimensions and size of space, the shape of space, and the relationship between space dimensions affect human perception of that space and the positive or negative sense of the people from space.

9) Sustainability: The optimal use of environmental factors and the effect of negative natural and essential human resources are of remarkable importance in the human environment, especially the space used by the public. Non-contamination of the environment (landscape), optimum use of energy and attention to ecosystems and not damaging them are effective factors for the sustainability of a landscape.

10) Efficiency: Effectiveness of any of the mentioned criteria and, as a result of the efficiency of the space, makes it possible for individuals to use space without restrictions. On the other hand, the feasibility of measuring landscape efficiency (cost-benefit) makes it possible to identify and create desirable environments (Rafiean, Taghvaei, Khademi, & Alipour, 2012).

11) Physical component: The physical environment of nature is the main component of the rural environment, and is the first to form the human environment. Comparison of habitats built in mountains and flatted lands, between cold and hot climates, and between them that are made on the banks of the river, with those built at the skirt of the mountains will indicate that the human-made form can be modified depending on the natural context. This variation in the physical form and natural qualities, in turn, affects the quality of rural space.

Applying the natural conditions of the man-made environment, in addition to the perceptual and aesthetic enhancement of rural spaces, provides an ecologically environmental and spatial attractiveness. This, in addition to rural sustainability, provides the overall stability of the rural area (Zeinali Ghotabadi, 2015).

12) Human components: The human components of rural identity are influenced by how the habits, beliefs and ways of life of the inhabitants of each village are practiced, and moreover, it goes back to the civil aspects of the locals. The head of this component is the human dialect or language of the village that is being considered (Zeinali Ghotabadi, 2015).

13) Historical-cultural components: Generally, they include an assemble that keeps them alive, leading to the continuation of past messages. By continuing with past messages, we are striving to keep a kind of witness, specimen, or sign to be relied upon as a reliance point in today's villages. Historical-cultural interventions are effective in explaining rural identity and also play a major role in providing psychological needs, because the civilized man needs to feel somewhere in space and time. Also, culture as the undeniable mainstream has always existed in most civilizations, and the works of historical-cultural architecture generally form part of rural identity. Once this impact has been so crucial, even the orientation and spatial organization of the whole city has been shaped by a historical and cultural element (Zeinali Ghotabadi, 2015).

14) Security / sense of security: Security is taken from the Latin root of "secures" which means "no worry" in the word, as well as escape from danger, threat, injury, anxiety, panic, concern with peace, confidence, comfort, trust, security, and warranty. Security in Persian culture also means freedom and tranquility, no fear and non-invasion of others. In the culture of behavioral sciences, the two meanings of this term were mentioned: i)a state in which satisfaction of personal needs fulfilled and ii)sense of personal valuable, confidence, and acceptance which are ultimately applied by the social classes to the individuals. Therefore, according to the definitions, security by scientists is considered as one of the most important human needs in villages, cities, and communities as Maslow ranked security as the second human need in the proposed pyramid of the needs. Other scientists have also referred to this definition in different ways. Security has always been considered by the experts as one of the main criteria of quality and important indicators assess the quality of community life. Nowadays, the criterion of security of residents is defined with their non-fear and anxiety of facilities, roads, buildings and unexpected events.

In explaining the concept of security, two distinct dimensions must be considered. The first one is the "objective" dimension, which evaluates the objective environmental and behavioral parameters, and the other one is the mental dimension, which is perception from the sense of security of the union.

Both dimensions can also have positive or negative effects on each other, which emphasizes the need to pay attention to providing public safety. Considering the above mentioned points, the role of rural landscape components in promoting the level of safety in public spaces and the safety difference between safety and security can also be found in this category, which is the safety that is more related to the human health and the prevention of threats, which can threat physical health of people. Indeed, it includes the external security while security has a mental dimension. We need to look at what creates a sense of security in society and how it can be strengthened. Accordingly, security is a kind of inner feeling of comfort that is derived from the active components of the environment and creates a sense of safety after a kind of mental perception. The sense of security also involves the human being in an environment as a type of psychological perception that is distinguished from a specific and cultural structure of rural with another cultural-social structure. Therefore, the formation of a sense of security is psychologically dependent on environmental conditions and, on the other hand, the type of perception and perceptual levels (Moaiedi, Ali Nejad, Navaie, 2013).

15) Economic: From an economic (operational-operational) perspective, rural settlements must be viable and guaranty the vitality, mobility and survival of their indigenous economies. Also, the variety of functions must be considered in terms of reason, proportionality and compatibility with each other, with the requirements and facilities.

16) Environmental: From an environmental outlook, it must guaranty the sustainability and efficiency of the resources and energy, support ecosystems, not release any environmental pollution or damage to the environment or resources, and activate the environment in the form of a live, flexible, self-sustaining and cyclic one. In other words, the village has become an element of environmental ecosystem and does not impose itself on environment, either in terms of landscape, function, or other outputs (Yiddghaar, A. Poorrohani, 2012).

2.3. Rural Valuable Texture:

The historic and precious texture of the cities and villages are precious trace of native culture, architectural knowledge and urbanism, and are considered as a part of the social identity of each nation. These textures in our cities and villages show elegance and beauty, as well as the creative spirit of the people who create them in accordance to their traditions, culture and livelihoods over many years. Historical and valuable textures have actual and potential capabilities as the old and historical core, which, if not predicted, will cause irreparable damage and loss of cultural invests. Since the old parts of cities and villages have the social and cultural spirit of the cities and the villages, the preservation of the identity of cities and villages, often in historical contexts, is the best way of expressing the history and national identity of each country. But, in fact, how can we define valuable textures? Is there a single definition of this category? For the appreciation of any definition of historical and valuable texture, the views of architects and planners should be considered. Valuable texture is not just a physical issue, but also it contains economic, social, and cultural issues. The basic nature of the historical texture is the formation of a consistent, continuous and unified texture in the history. In other words, over time and based on the experiences of the past, it has gone through the whole trend of processes. Historically, textures should clearly state the period of history that they belong to. These textures, although they may not be a cultural revolution, have a protective value due to their particular period of representation and the role played by the process of cultural revolution. The valuable textures are the textures that include the past and inescapable traces that can help their communities to understand their cultural and past values. In addition to stimulating national proud and creating a sense of identity, they preserve them and increase the quality of life (Shekariarani, 2015).

Tourism, in turn, can have positive or negative effects on the environment, and the extent and magnitude of these effects depend on planning and management. If development of tourism is environmentally compatible and based on the capacity to accept, it will be an important driver for sustainable development. Since the rural areas of the vulnerable resource are susceptible to environmental, social and economic changes, in particular, experience has shown that wherever the tourism is spontaneous and accidental, without planning and management, it had undesirable consequences and its disadvantages were more than its advantages in the long term. Then, the development of tourism in rural areas should be sustainable in the context of sustainable

development. Rural valuables are subdivided into classes in most cases. The districts have a social dimension more than physical objects. In the view of the observer who visit the villages, it is difficult to identify the boundaries and discriminate between them. The division of this localities can be tribal, religious, or ethnic. Villages that are part of a living legacy and valuable texture have two main goals for intervention with their hidden values. First, the protection of existing values in rural areas, and second, the comprehensive and sustainable development of residents using the potential of these textures (Khodadadi, Mohammad Nejad , 2013).

2.4. Review of literature

Palang, Printsmann, Gyuró, Urbanc, Skowronek, & Woloszyn (2006), in a study entitled *the forgotten rural landscapes of central and eastern Europe* published in the Landscape Ecology, considered the temporal diversity with a different point of view with other geographers and landscape ecology experts who mainly focus on spatial diversity. They, with considering that the interaction between nature and human is the fundamental force that has created diversity over time, believe that due to the diversity of time, the relationship between humans and the landscape has been lost in central and eastern Europe, and also showed that this diversity reduces the readability of landscapes, low communication and change of concepts. They referred to some examples in the central and eastern European countries such as Estonia, Hungary, Poland and Slovenia, which are more diverse than Western Europe in terms of time. Thus, with considering these differences, it is necessary to use different indicators for measuring and studying landscapes, specific problems, threats, and the ability to manage future development plans. Over the past decades, the expansion of urban centers and the intensification of agricultural activities have dramatically changed the traditional cultural landscape of some regions of Europe, including Switzerland. Motevali (2010) analyzed the subject of quality of beauty through the evaluation and assessment of the criteria based on the concept of consecutive views in the urban landscape. This assessment was based on the observer's perception of space and seems to be used as a method for analyzing the beauty of the landscape in urban design. First, it explores the concepts and definitions of beauty, motion and consecutive views in urban landscape. Subsequently, the case study was evaluated by extracting a classes of criteria and indicators concerning the concepts of quality of beauty and consecutive impressions, in the form of evaluation matrix. Finally, a category of landscape design solutions is presented to enhance the quality of beauty in each area of the study area.

Mahdavi (2011) assessed the identify and the sustainability of villages using a descriptive-analytical survey method in order to find economic and socioeconomic solutions to stabilize development, in particular, in the historical and cultural villages of the country through the development of a practical way of assessing and monitoring the progress towards sustainable development of rural tourism in terms of human and natural system quality.

3. Research Methodology

The method of this research is descriptive-analytic and quantitative. Data extraction and analysis were performed using various tools such as interviews, questionnaires and softwares. In the research literature, the documentation has been used according to the research requirements. Descriptive and inferential statistics have been used in the analysis. A questionnaire has also been used for verbal validity. The Cronbach alpha coefficient has been used to measure the reliability of the questionnaire. According to the table below, in this questionnaire, the Cronbach's alpha coefficient was 99.1%, and the coefficient was acceptable for confirmation of reliability.

The main question of the research was that what the components of landscape identity are in the villages of tourism with a valuable texture. A landscape was identified in four areas of aesthetic, semantic, perceptual, functional-activity components using the literature review of components and identity indicators, and then, through the studies, these components were extracted, arranged and listed in a wide range in the form of a table using the frequency of repetition of the components. The frequency of each component was determined by the percentage of repeatability in the literature and related studies. Those components that had the highest percentage of repeatability in the literature of landscape identity were selected as the component of landscape identity. It should be noted that in the process of preparing the components, the criteria for evaluating their performance in this research are the relation with the topic, data access (capacity for collection and processing), validity and

information, accuracy and understanding of the ability for users, and the ability to compare over time and across different regions. So, first, all components of landscape identity were identified in the literature. Then, elements of landscape identity were extracted in valuable tourist villages which were noted without any exception. The literature related to the villages of valuable texture components considered the economic, physical, social, historical-cultural quality factors completely. Among the identified components, the components of readability, vitality, beauty, safety and security, variety and diversity, belonging, accessibility, historical-cultural, semantic, visual and physical quality were selected because of the higher repeatability. Social, environmental and economic factors, as it was mentioned, were considered because they were included in all the previous studies. Subsequently, related terms were designed and selected from the literature.

3.1. Statistical Community and Sampling Method

One of the steps that is very effective in answering the quality of the questionnaires is the proper selection of knowledgeable and experienced people in the area. First, the criteria for selecting individuals should be specified. These criteria should be fully consistent with the subject title of the research and the model under study. The criteria that can be used include relevant academic fields, useful experiences, compilation and translation of the book, and the publication of scientific papers on the research, employer in the field that relates to the topic of the research. A snowball sampling method was used in this research. The sample size of this study is equal to thirty six and was fulfilled by the faculty members of the faculties of Applied Geography and Rural Planning, architecture, landscape architecture and specialist authorities related to the valuable textures of the three organs including provincial government, housing Foundation and cultural heritage organization in seven selected provinces (i.e., East Azerbaijan, North and South Khorasan, Yazd, Isfahan, Fars, Mazandaran).

4. Research Findings

Desirable finding is a result of accurate analysis of the information that was gathered based on the main question of the research. Therefore, analyzing information is one of the main foundations of each study as the main part of the scientific research methodology process. The purpose of the analysis is to make the data into intelligible and understandable information. The analysis of research findings is a fundamental step in describing the data and confirming the hypotheses that the researcher has designed to answer the questions. To answer what the components of landscape identity are in tourist villages with high value texture, and which one is more important, we have prepared a questionnaire for this research. According to the research, a sample of 36 people has been analyzed. The people were selected by random sampling and collected data was analyzed using the SPSS software. The results are presented in two sections: descriptive and inferential statistics.

4.1. Descriptive statistics of respondents

In this study, both genders (16.7% female, 83.3% male) participated. Twenty percent of the participants were between 40 to 50, 16.7 percent were between 50-60, and 2.8 percent were more than 60 years old. The people with age ranging 30 to 40 years old have the highest number of respondents. The academic status of respondents show that 3.8% had bachelor's degree, 36.1% had masters, and 55.6% of them had doctoral degree. The highest level of education in respondents was doctoral degree because in addition to the experts of the studied areas, the samples also included university professors who were all faculty members. Their employment status was as follows: 19.4 percent of the individuals were employed in Housing Foundation, 19.4% were employed in the Cultural Heritage and Tourism Organization, 41.7% of the respondents work at universities, and 19.4% were working in provincial government (related to the Ministry of the country). The status of respondents major showed that 47.2% of those had geography and planning expertise, 33.3% had an architecture expertise, 5.6% had civil engineering degree and 13.9% had degrees in other fields. Among the majors, geography and rural planning hs the highest number of respondents. The situation of the place of their activity showed that the 8.3% of them were from the East Azerbaijan province, 2.8% from Ardabil province, 8.8% from Isfahan province, 27.8% from province of Tehran, 1/11% from South Khorasan province, 8.3% from Khorasan Razavi province, 8% from Northern Khorasan province, 8.3% from Fars province, 8.3% from Mazandaran province, and 3.8% from Yazd province. Among the cities, Tehran has the highest percentage of

respondents because university professors are more in this province.

4.2. Inferential statistic for the component of landscape identity

The goal is to determine whether sample data has enough evidence to reject or confirm hypothesis in statistical tests. The incorrect selection of the test will distort the results of the research. (Rajabzadeh Qatari, Safari, & Memarpour, 2014) Analysis of variance, also referred to as ANOVA or F test, is one of the most effective and widely used statistical techniques in such studies. When the researcher wants to examine the average differences between more than two communities or samples with independent groups, he utilizes analysis of variance (Rajabzadeh Qatari, Safari, & Memarpour, 2014). For analyzing variance, first, equation of variance test was performed to compare equality or inequality of variances in the SPSS software. For this purpose, the homogeneity of variance test in the analysis section, one way ANOVA, was examined and according to the following table, based on the Lun test statistics with 12 degrees of freedom, the results showed that the level of significance is 0.17; it is higher than the alpha 0.05, and it can be assumed as the equality of variances. Then, there is not a significant difference between the variances and the tests where the variance between the groups is assumed equal to be used in the post-hoc comparison.

Table1. Identification table for landscape identity components

(Source: Hosieni, 2019)

Explore	Physical quality and visual proportions	Human (institutional)	Historical and cultural	social	Readability	Presence	Vitality	Beauty	variety	Sensory richness	Security and safety	flexibility	fixation	availability	Desirability	Compatibility	Durability	Semantic	Environmental (natural)	Permeability	Sustainability	Performance
Rolf (2015)	❋		❋															❋				
Christiane Norberg (2013)				❋									❋					❋				
Wagner (1998)	❋																	❋				
Taghvaei, Khademi & Alipour, (2012)	❋			❋	❋		❋	❋	❋			❋		❋		❋		❋			❋	❋
Meltem Erdem Kaya (2013)	❋		❋	❋										❋					❋			
Agnieszka Jaszczak1 (2011)	❋		❋					❋											❋			
Mansoori (2014)			❋	❋	❋				❋	❋		❋	❋	❋				❋				
Moztarzadeh, (2015)				❋							❋		❋		❋							
Golkar (2000)	❋		❋	❋	❋		❋		❋		❋			❋		❋		❋	❋			
Akbari Motlagh (2011)	❋	❋			❋		❋	❋	❋		❋		❋		❋			❋	❋			

Explore	Physical quality and visual proportions	Human (institutional)	Historical and cultural	social	Readability	Presence	Vitality	Beauty	variety	Sensory richness	Security and safety	flexibility	fixation	availability	Desirability	Compatibility	Durability	Semantic	Environmental (natural)	Permeability	Sustainability	Performance
Pour Jafar & Dehghani (2011)	❊		❊	❊	❊				❊		❊		❊	❊				❊			❊	
Ismail Diran, (2012)	❊			❊				❊			❊	❊	❊							❊		
Pourjafar & Sahar (2013)	❊			❊	❊		❊															
Moeidi, Alinejad, & Navadi (2013)	❊		❊	❊	❊		❊	❊	❊		❊	❊	❊					❊		❊		❊
Changizi, & Ahmadian (2013)	❊		❊	❊	❊			❊					❊					❊				
Adab (2013		❊	❊		❊											❊		❊	❊			
Hossein Garkani (2014)	❊			❊				❊			❊					❊		❊	❊			
Rahimi Fard & Puresfahani (2014)	❊		❊		❊		❊	❊	❊	❊	❊		❊	❊					❊	❊		
Danesh Pajooh & Modri (2014)	❊				❊			❊	❊	❊		❊	❊				❊			❊	❊	
Hatefi Farshjian, &Aliabadi (2014)	❊				❊	❊	❊											❊				
Aghakhani, Baghdadi (2014)	❊		❊	❊	❊		❊	❊		❊				❊		❊						❊
Amine Zeynli Ghotbabadi (2015)	❊	❊	❊	❊	❊		❊				❊								❊			
Bentley (1985)	❊				❊				❊	❊		❊	❊							❊		❊
PSS Institute											❊			❊								
Pouya doulabi, et, al (2015)	❊				❊			❊						❊				❊	❊			
Shokouhi, Hosseini (2015)	❊			❊			❊	❊			❊					❊						
Sultanzadeh et al., (2012)	❊																					
Pourjafar (2013)	❊		❊								❊											

Explore	Physical quality and visual proportions	Human (institutional)	Historical and cultural	social	Readability	Presence	Vitality	Beauty	variety	Sensory richness	Security and safety	flexibility	fixation	availability	Desirability	Compatibility	Durability	Semantic	Environmental (natural)	Permeability	Sustainability	Performance
Safarnejad et.al (2016)	❊				❊		❊	❊	❊	❊		❊	❊	❊			❊	❊	❊		❊	
Shirvani (1984)	❊															❊						
Kalantari Khalil Abadi (2012)	❊		❊	❊															❊			
Khodaday & Mohammadnezhad (2013)	❊		❊	❊			❊						❊									
Ghahremani (2012)	❊		❊	❊															❊			
Azad & Hashemi Ruteh (2016)	❊		❊	❊					❊			❊						❊	❊			❊
Mohammad Kesra (2010)	❊			❊															❊			
Anabestani & Khatami (2017)	❊			❊															❊			
Hananchi (2011)			❊	❊															❊			
Kensotange (2009)			❊																			

Therefore, due to the significance level of the test is less than 0.05, the assumption of the difference between the groups (thirteen components of the landscape identity) is confirmed and the same statistical assumption is rejected according to the ANOVA table. That means at least one of the groups is different regards to average of the rest of the groups, and the value of F Fisher's test at a error level of less than 0.01 is significant, it means that statistically significant differences exist between the groups of thirteen components.

Table2. Continued from table Component
(Source: Hosieni, 2019)

Explore	Visual proportions and physical quality	Human (Institutional)	Historical and cultural	Socially	Readability (clear image of the environment)	Presence	Vitality	Beauty	Variety	Sensory richness	Security and safety	flexibility	fixation	availability	Desirability	Compatibility	Durability	Semantic	Environmental(normal)	Permeability	Sustainability	Performance
Kevin Lynch et al. (1832-1914)	❊		❊																❊			
Jenkes et al (1819-present)	❊		❊																			
Proshansky (1970) - (1983)	❊																	❊				
Capone & Roach	❊			❊			❊	❊			❊											❊
Cremona 2002	❊			❊														❊				
Jin J kubz (1961)	❊		❊	❊					❊			❊		❊								
Broadway	❊			❊				❊			❊							❊				
Panther & Cremona (1997)	❊					❊															❊	
Ian Nairen																		❊				
Transic (1986)	❊							❊														
Hatton & Hunter (1994)	❊			❊					❊		❊	❊								❊		
Green (1992)	❊							❊														
Voylich (1983)	❊		❊	❊	❊			❊														
Bentley et al. (1985-1990)	❊	❊			❊			❊	❊	❊		❊		❊		❊						❊
Bentley et al. (2011)	❊				❊				❊			❊	❊	❊				❊				❊
Ministry of the Environment (2000)	❊				❊	❊			❊				❊									
Maslow				❊				❊			❊							❊				
Coleman (1987)	❊		❊				❊	❊	❊										❊			

Explore	Visual proportions and physical quality	Human (Institutional)	Historical and cultural	Socially	Readability (clear image of the environment)	Presence	Vitality	Beauty	Variety	Sensory richness	Security and safety	flexibility	fixation	availability	Desirability	Compatibility	Durability	Semantic	Environmental(normal)	Permeability	Sustainability	Performance
Brian Goody (1992)	❊	❊			❊		❊		❊			❊										
Saruto Worth 1989	❊		❊	❊	❊		❊		❊		❊			❊				❊				
Prince Charles (1989)	❊			❊	❊			❊														
Jacobs and Aplyard (1987)				❊		❊	❊	❊						❊				❊				
Camille et al. (1841-1919)			❊																			
Linch (1979) (1981)	❊		❊	❊	❊		❊				❊			❊		❊		❊				❊
Lynch (1983)				❊			❊	❊						❊		❊		❊				❊
Carneiro, et al. (2015)		❊	❊			❊													❊			
Abundance	54	6	28	34	25	5	19	24	19	7	18	13	15	17	2	10	2	26	21	6	5	10
Frequency	84.34	9.37	43.75	53.12	39.06	7.81	29.68	37.5	29.68	10.93	28.12	20.31	23.43	26.56	3.12	15.62	3.12	40.62	32.81	9.37	7.81	15.62

For ranking the importance of the components of landscape identity post hoc test was used. The Tukey post hoc test is used because of the equality of the variances in the groups and the sample size.
After documentary studies, aesthetic, semantic, functional-activity components were identified as components of landscape identity in the village. After the implementation of the indicators, the components of readability, Vitality, beauty, security and safety, diversity and diversity, belonging, accessibility, historical and cultural, semantic, visual proportions and physical, social, economic, and environmental quality are obtained among all the components in these three areas. According to the above table (Tokyo Hsd), the accessibility component in the first column, has less importance while safety and security, diversity and variety in the both common and ten components in the second column have the most importance. The economic component was in the priority importance. The historical-cultural component considered as a perception component was considered as an important component after economic (first rank) and social (second rank) ones with having the third rank. The main hypothesis of the research was confirmed.

Table 3. Resukt of Tukey HSD
(Source: Research findings, 2019)

F - Factor	N	Subset for alpha = 0.05	
		1	2
Availability	36	2.1577	
Security and safety	36	2.3348	2.3348
variety	36	2.4420	2.4420
Vitality	36		2.4759
fixation	36		2.4833
Visual proportions and physical quality	36		2.4867
Beauty	36		2.4902
Semantic	36		2.4923
Environmental (natural)	36		2.5240
Readability	36		2.5417
Historical and cultural	36		2.5510
Socially	36		2.5554
economically	36		2.6172
Sig.		.099	.105
Means for groups in homogeneous subsets are displayed.			

Comparing the components and evaluating the level of their differences were done according to the Tukey. According to Tukey's table, there is not a significant difference between the vitality component and the components of beauty, security and safety, variety and diversity, belonging, historical and cultural, Semantic, visual proportions and physical, social, economic, and environmental quality, while there is a significant difference between the vitality component and accessibility component. Based on the research findings, there is no significant difference between the components of beauty and the components of safety and security, diversity and variety, belonging, historical and cultural, semantic, visual proportions, physical quality, social, economic, and environmental components while there is a significant difference between the beauty and accessibility component.

Based on the research findings, there is no significant difference between the components of security and safety and other components (12 other components). There is also no significant difference between the components of diversity and variety and other components. There is a significant difference between the component of belonging and accessibility, and there is no significant difference between belonging with other components. There is a significant difference between the component of accessibility and readability, vitality and beauty, and belonging, historical, cultural, semantic, and visual proportions and physical and social quality, and economic and environmental factors, but there is no significant difference between the accessibility component with the diversity and variety component and security and safety.

There is only a significant difference between the historical-cultural component and the accessibility, and there is no significant difference between this component and other components. There are significant differences between semantic and accessibility components, but there is no significant difference between this component and other components. There is a significant difference between the component of visual proportions and physical identity and accessibility component, but there is no significant difference between this component and other components. There is a significant difference between social component and accessibility, but there is no significant difference with other components. There is a

significant difference between economic component and accessibility but there is no significant difference between this and other components. There is a significant difference between the environmental component and the accessibility, but there is no significant difference between this with other components. Finally, it can be found that the components have a significant within-group difference.

5. Discussion and Conclusion

The purpose of the study was to evaluate the valuable texture of the villages. We know that the valuable texture must be preserved. The main issue is that maintaining and preserving these valuable texture that will result in losing languages and knowledge of landscape perspective. This means that the indigenous people are civilized and less adapted to landscape, and no longer hear the birds singing, the sound of the river and the water, winds in the desert. The fact is that the maintenance of these "values" is acompanied with the protecting and maintaining all semantic, language, and landscape concept, and accurate and fluent parlance. We shaped the landscape and language, and these in turn, shaped us, however, whatever this formation is in a conscious, perfect, accurate, and complete our environment will be manifestations of sustainability, comfort and functional, semantic and artistic, and can form the landscape that supports the lives of human beings and nature and will promote identity and rule diversity, and if we don't know anything about the landscape and operate without knowledge, undoubtedly we made the environment and people disorderly and meaningless and without performance, insecurity, instability. These mentioned problems were as triggers for the researcher to consider recognizing the components of landscape identity in valuable tourist villages in building close-up of plans in these areas in accordance with the landscape language. It will not be possible to provide a rich perspective, a favorable landscape acceptable to both the local community and tourists regardless of landscape constructive structure. The most important components of landscape identity such as economic is effective in providing a dynamic landscape view through the quantitative and qualitative improvement of the social and industrial fields, meeting the needs of the inhabitants and tourists, attracting and directing investments to create accommodation camps and rental homes for tourists around valuable texture, generating public welfare through economic upgrading, marketing and exploiting legacy products in order to protect traditional businesses and create income (rug weaving, carpets weaving, production of honey, nuts), providing affordable and good-quality tourism products, creating new business opportunities (sustainable employments) in valuable villages (tourism-related businesses such as local leader, creating local and public markets, he women in the production process), and building a market for selling livestock, and gardening in surrounding villages in the local market place of rural texture. Similarly, the social component is also effective through the social interactions in tourism activities (sending tourists by tour operators and using local tourists leader who is familiar with the context of a two-way interaction between the agencies and the natives), the preservation of social values (collective cooperation, the preservation of customs, the preservation of the ancient village tradition), which is often interesting for tourists, the traditional village fields and collective open spaces for preserving and introducing customs and social cultures to introducing it to future generations of rural people, encouraging residents of the valuable texture for participation (financial, technical, and intellectual participation) in the rehabilitation, reconstruction and development of tourism infrastructure and facilities, and making money from this way), educating and informing residents about how to deal with tourists in order to avoid conflicts between tourists and residents of valuable texture with the value of the correct way of dealing and preventing conflict from the tourists to the host community, promoting and awaking the natives, self-confidence and sense of belonging to the village and its rural identity. All of mentioned factors can be important in the presentation of a social value that is valuable in society. The historical and cultural components include a category that preserves and maintains life leading to the continuation of past messages. The civilized human needs to feel that he belongs to space and time, through the attention to the national and local culture (local culture in the custom, the holding of specific customs in the historical places, the restoration of memorials and traditional and old buildings and preventing the destruction of them), paying attention to old traditions in rural development and improving and restoring the traces, preserving cultural heritage (sensible and

insensible effects); (knowledge of cultural heritage and recognition of them, preservation of the buildings with an architectural and historical value, the implementation of the process of protecting the valuable traces and reviving their identity as a document of indigenous proud document, linking the past and manifestation of history in the buildings, cultural behaviors, beliefs and appearances, addressing the authenticity persons of the village); a strong personality in the rural area(strong historical background including being proud of the past, and historical narratives of victories and the existence of the contemporary people show the authenticity of the rural area) can all be a major factor in the historic-cultural component is providing a vision of authenticity and identity of the landsacpe.

Suggestions:

1. Improving the quality of life of residents (hosts), guests (visitors) through the use of landscape identity components in planning and design
2. Identifying the economic, social and cultural potential of each region with valuable value in order to take advantage of them in adopting strategic policies with a participatory approach aimed at developing tourism.
3. Increasing local awareness and knowledge, followed by observation to preserve and treat the landscape (local self-management) to manage visitors from these areas for educational and recreational purposes.
4. Preventing the destruction (deliberately and unknowingly) of the natural environment and cultural heritage that forms the identity of the indigenous villages of tourism, the provision of educational and environmental training programs aimed at cleaning up and protecting the natural environment and human beings and building, revitalizing and restoration of the cultural heritage of the region or the promotion of educational programs on the sustainable use of natural resources.
5. Maintaining the balance between the cultural and natural factors shaping the landscape by protecting the social, cultural, spiritual and natural values of the habitat (habitats, natural monuments, biological and animal species) through the consideration of the components of landscape identity and application. They have a protective approach to protect the cultural heritage, wildlife, natural habitats and biodiversity, and to protect archeology of the heritage.
6. Facilitating the security of local communities, tourism activities, even scientific research.
7. Strengthening landscape policies and protecting and enhancing such policies in terms of knowledge, interests and public interest, multi-part strategies, tools and more efficient guidelines; effective participation of stakeholders and local communities based on their expectations and perceptions. .
8. Prioritizing landscape identity for a sustainable landscape, even for later generations

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تبیین مؤلفه های هویت منظر در روستاهای گردشگری دارای بافت با ارزش در ایران

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چکیده مبسوط

۱. مقدمه

امروزه موضوع بازشناسی و تعیین الگوی هویت منظر و احیاء آن به ضرورت مهمی در برنامه‌ریزی و سیاست‌گذاری سکونتگاه‌های بشری تبدیل شده است. هویت سکونتگاه‌ها به عنوان شاخص‌ترین نمود فضایی عهده‌دار تبیین ارزش‌ها، هنجارها و روابط انسانی و اجتماعی در ساخت فضایی است. یکی از مهمترین جنبه‌های هویتی، هویت منظر است که در مکان تجلی پیدا می‌کند هویت منظر در قالب ساختار فیزیکی سکونتگاه روستایی قابل تعیین است که متأثر از ابعاد اجتماعی، تاریخی، جغرافیایی، برنامه‌ریزی و....است. باور اساسی این است که روستاهای دارای ماهیت کارکردی گرشگری در صورتی که دارای هویت منظر با تعریف مطرح شده داشته باشند، پایدار و در مجموعه متغیر حیات و احیاء هویتی ملندگار خواهند بود. در پژوهش حاضر محقق قصد دارد به حوزه بافت با ارزش روستایی نگاهی ورای آنچه دیگران بدان پرداخته اند، داش ته باشد. بدین معنی که حقیقت شکل دهنده اینگونه روستاها می‌تواند برخواسته از هویت منظری باشد که آنرا شکل داده است. بنابراین شناخت و شناسایی مؤلفه‌های سازنده هویت منظر اینگونه روستاها ضرورتی غیرقابل انکار است، بدین ترتیب سوالی مبنی براینکه؛ مؤلفه های هویت منظر در روستاهای گردشگری دارای بافت باارزش، کدامند و کدامیک از اهمیت بیشتری برخوردار است ؟

۲. مبانی نظری تحقیق

طبق نظر الکساندر هویت در محیط هنگامی تجلی می کند که ارتباط منطقی و احساس تعلق خاطر بین فرد و محیط زندگی اش بوجود آید و این ارتباط بر اساس شناخت عمیق و تشخیص محیط باشد و توان درک تمایز آن محیط نسبت به محیط‌های دیگر را نیز داشته باشد.طبق نظرکوپر مارکوس محیط ابتدا توسط فرد شناخته شده و سپس فرآیند پیوند روانی با مکان به انجام می رسد. بدین ترتیب با گذشت زمان و ایجاد علاقه فرد با محیط تعلق مکانی شکل می گیرد، تعلق مکانی یکی از مهمترین تأثیرات محیط و منظر می باشد که با هویت مکان ارتباط تنگاتنگ دارد و رابطه هم پیوندی است که میان انسان و محیط برقرار گردیده و بر اثر این رابطه محیط به یک لنگرگاه روانی تبدیل می‌شود و وابستگی به مکان شکل می‌گیرد. به عقیده والتر بور؛ هویت همان تفاوت های کوچک و بزرگی است که باعث بازشناختن یک مکان و خوانایی محیط می‌شود و حس دلبستگی و حساسیت به محیط را به وجود می آورد .خاص بودن هر محیطو منظری به معنی اجتناب از یکنواختی، وجود تنوع و جذابیت است. در شکل و نحوه قرارگیری فضاها، در طرز دسترسی به فضاها و در کاربری ها نیز می باید وجود داشته باشد.

۳. روش تحقیق

روش انجام این تحقیق، توصیفی – تحلیلی پیمایشی و از نوع کمی می باشد که با استفاده از ابزار گوناگون مانند مصاحبه ،پرسشنامه ونرم افزارها استخراج و تجزیه وتحلیل داده‌ها صورت گرفته است.

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یکی از مراحلی که در کیفیت پاسخ ها بسیار موثر است انتخاب صحیح افراد مجرب و آگاه در زمینه موضوع مورد مطالعه است. از اینرو در این پژوهش از روش نمونه گیری گلوله برفی استفاده گردید که حجم نمونه این پژوهش برابر با۳۶ می باشد و در اختیار اساتید هیت علمی دانشگاهی جغرافیا و برنامه ریزی روستایی، معماری، معماری منظر و مسئولین متخصص مربوط با بافت های باارزش از سه ارگان استانداری و بنیاد مسکن و میراث فرهنگی در هفت استان منتخب نظیر (آذربایجان شرقی،خراسان شمالی و جنوبی ،یزد، اصفهان ،فارس، مازندران) قرارداده شد و توسط آنها تکمیل گردید. اطلاعات جمع آوری و با استفاده از نرم افزار SPSS آنالیز شده است. نتایج به دست آمده در دو بخش آمار توصیفی و آمار استنباطی ارایه گردیده است.

۴. یافته‌های تحقیق

پس از عملیاتی کردن شاخص‌ها، از بین تمامی مؤلفه های موجود، مؤلفه‌های خوانایی، سرزندگی، زیبایی، امنیت وایمنی، تنوع وگوناگونی، تعلق خاطر، دسترسی، تاریخی و فرهنگی، معنایی، تناسبات بصری و کیفیت کالبدی، اجتماعی، اقتصادی و زیست محیطی بدست آمد که با توجه به آزمون آماری آنوا و آزمون (توکی اچ اس دی) مؤلفه اقتصادی به عنوان با اهمیت‌ترین مؤلفه هویت منظر با کسب رتبه اول مورد تأیید قرار گرفت و مؤلفه تاریخی – فرهنگی هم که جزء مؤلفه ادراکی محسوب می‌شد بعد از مؤلفه‌های اقتصادی (رتبه اول) و اجتماعی (رتبه دوم) با کسب (رتبه سوم) جزء با اهمیت‌ها آورده شد. بدین ترتیب فرضیه اصلی پژوهش مورد تأیید قرار گرفت.

۵. بحث و نتیجه‌گیری

مهمترین مؤلفه‌های شناخته شده هویت منظر، نظیر اقتصادی از طریق بهسازی اقتصادی کمی و کیفی عرصه‌های زیست و تولید روستایی، در ارائه ی منظراقتصادی پویا اثرگزار باشد بهمین ترتیب مؤلفه اجتماعی از طریق، تعاملات اجتماعی در فعالیت‌های گردشگری، حفظ ارزش های اجتماعی که اغلب برای گردشگران هم جالب است، تشویق ساکنان بافت با ارزش برای مشارکت در احیاء و بازسازی و توسعه زیرساخت‌ها و تسهیلات گردشگری و کسب درآمد از این راه، پیشگیری از آسیب‌های وارده از سمت گردشگران به جامعه میزبان، ترویج و آگاه‌سازی روستاییان، اعتماد به نفس و احساس تعلق به روستا و هویت روستایی خویش و.... پرداختن به همگی این موارد می تواند در ارائه منظر اجتماعی با ارزش و منسجم اجتماعی حائز اهمیت باشد. مؤلفه تاریخی و فرهنگی که این مؤلفه شامل مجموعه‌هایی که حفظ و نگهداری و حیات بخشی به آن‌ها منجربه استمرار پیام‌های گذشته می‌گردد. انسان متمدن نیازمند ان است که حس کند به جایی در فضا و زمان تعلق دارد، از طریق میزان توجه به فرهنگ ملی ومحلی، توجه به سنت‌های قدیمی در توسعه روستایی و بهسازی و مرمت مو به مو آثار، حفاظت میراث فرهنگی (آثار ملموس چه ناملموس)، پرداختن به اصالت روستا؛ شخصیت قوی محدوده روستایی، همگی می‌تولند از امور مهم مؤلفه ی تاریخی – فرهنگی در ارائه ی منظری با اصالت و با هویت باشد.

کلمات کلیدی– منظر، هویت منظر، منظر روستا، مؤلفه‌های هویت منظر، ایران.

تشکر و قدرانی

پژوهش حاضر برگرفته از رساله دکتری نویسنده اول (آناهیتا حسینی)، گروه جغرافیا، دانشکده علوم انسانی، دانشگاه تربیت مدرس، تهران، ایران. است.

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Policies and Planning Approach: Challenges and Opportunities for Local Stakeholders' Empowerment and Sustainable Development (Case Study: South and South-East Villages of Tehran)

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Abstract

Purpose- The present study aims to examine the challenges and opportunities for local stakeholders' empowerment related to rural planning in Iran. In general, the current approach of planning process from making decision to implementation and monitoring is based on instrumental rationalism approach, irrespective of the villagers' viewpoints. Urban – Rural divided planning has created some challenges for sustainable rural development and opportunities for improving environmental-ecological and socio-economic indicators, which have been ignored.

Design/Methodology/Approach- Less attention has been paid to local stakeholders' empowerment in planning methods and procedures, which is regarded as an obstacle for the promotion of the indicators related to sustainable rural development. The present study was based on a descriptive – analytical method. Correlation test and multivariate regression were used to provide a meaningful framework. Library and field studies were used for data collection. Library method was used to understand the impact of policy implementation and planning approach on the socio-economic empowerment of local stakeholders for their socio-economic participation in sustainable rural development and the study of previous research experiences and other countries on appropriate planning. The statistical population of the study is 124 villages in south and southeast of Tehran. Random sample size for completing the questionnaire of local authorities at village level, using Cochran formula and its adjustment formula for small statistical population, with 95% confidence level and probability of 0.05 and prediction of variance S2 0.25 = sample size of 54 villages was achieved. In these 54 villages, 450 questionnaires were completed according to size by specifying sample size in each village .The validity of the research questionnaire was conducted by experts in organizations. The reliability of the questionnaire through Cronbach's alpha was 0.801 .

Findings- The results indicated that local stakeholder's generative empowerment is important although unproductive empowerment is increasingly overcoming. In addition, the possible effects of this process have been identified. Thus, problem-oriented planning is necessary for formulating a community-based approach optimally and strengthening social capital, which is not based on current instrumental rationalism approach. Thus, for the best planning with a community-based approach and the reinforcement of social capital, the group to convene is needed in the process and problem-oriented planning is important. This is inconsistent with the techno centrism rationalism approach.

Key Words- Rural planning, Empowerment, Sustainable development, Rural, Tehran, Iran.
Paper type- Scientific & Research.

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1. Introduction

Based on the literature in the early 1980s, instrumental rationalism approach had dominated the planning process in most countries (Healey, 2007) . The planning process based on this approach, which is common in many countries such as Iran, poses many challenges in the planning process of rural and urban centers of such countries. Because, in this approach, all the planning stages are expert-oriented, people are considered as the only source of the necessary information. In addition, local stakeholders' empowerment and participation were often underestimated in the planning process (Amdam, 2005). In addition, despite the fact that at the regional levels and within homogeneous geographical areas, the rural-urban centers have a "reciprocal interaction" (Douglass, 1998), some countries like Iran have focused on industrialization and a disintegrated planning which have created some challenges in development process although there are some reciprocal interactions between rural and urban centers. According to many development experts, the positive and converging role of rural-urban planning is emphasized for the socio-economic development and sustainability of rural settlements and urban centers throughout the region. (Shafiei Sabet & Azharianfar, 2017).

Today, interactive policies and integrated rural-urban planning have been regarded as a development planning among the developed countries (Njoh, 2011). Thus, in addition to the simultaneous attention to rural-urban development planning, the participation of rural and urban residents in the planning process is also considered (Martens, 2001; Dede, 2016).

Further, paying attention to local stakeholders' empowerment and participation in planning process is considered as one of the most important issues (Amundsen & Martinsen, 2015; Spath & Scolobig, 2017). Furthermore, the participation of governmental and nongovernmental organizations in planning provides horizontal and vertical integration while some countries ignored the importance of the components of planning process and socio-economic and national policies and programs (Shen & Yai, 2011). Lack of attention to such planning and neglecting the participation of popular organizations and vertical and horizontal integration in planning also affect development in different dimensions in rural and urban settlements (Draft Louth County Development Plan, 2015). On the other hand, due to the time consumed and often costly communication approaches, they neglect to integrate rural-urban linkages into policies and planning practices (Tacoli, 2004, 2010). They also neglect to consider the process of education and awareness (McCall, 2003) and to promote rooting the knowledge and skills of the villagers in the decision making and planning processes. Also, lack of attention to the integrated approach neglects issues such as institutionalization, transparency, trust and confidence, empathy, accountability, capacity building, empowerment and involvement of rural and urban groups in development programs (Amdam, 2005; Amundsen & Martinsen, 2015). Analyzing the relationship between policies, approaches and rural planning methods such an efficiency, civil participation, and local cooperation network development can set the ground for sustainable rural development (Snelgrove, Pikhart & Stafford 2009). According to Shen, Jiang & Yuan (2012), enough investment is not available in infrastructure and economic activity among the villages of less developed countries. In addition, they face serious challenges in promoting sustainable rural development such as environmental, ecological and socio-economic challenges.

The area under study has long faced with deprivation and low levels of development. The importance of development is required to find a more scientific and accurate understanding and to promote sustainable rural development indicators and the approach or method for rural planning. It is important that adopting policies and methods for rural planning in the event of linkage between planners and rural settlements can increase the sustainable rural development.

By considering the above-mentioned, the present study seeks to answer the following questions:

Q1: What challenges have been created in the process of empowering and participating rural residents in the south and southeast of Tehran in the process of sustainable development based on instrumental rationalism approach?

Q2: What consequences does the process of empowering and participating rural residents have for sustainable development of rural areas in the south and southeast of Tehran?

Q3: What is the appropriate pattern of development planning for suburban villages such as Tehran?

2. Research Theoretical Literature

2.1. Challenges and opportunities for rural development planning approaches

The history and experience of planning in Iran is equal to the life of the theory of development literature, the effects of patterns, theories, approaches, as well as the related strategies to the development plans and rural development programs. The realization of rural development goals requires appropriate approaches for economic, social, and physical development in planning. In this regard, instrumental rationalism and collaborative approaches have been proposed in development planning process so far. Among the developing countries like Iran, the use of rationalist approach into the planning process is more prevalent and the collaborative approach has been considered in planning literature since the late 20th century (Rezapour, Bahrainy & Tabibian 2018).

Following the economic, social, and environmental disruptions of instrumental rationalism approach, the collaborative approach entered into development planning literature and was criticized by Jürgen Habermas (1985) (Hummel Brunner, 2000), who sought to communicate effectively and provide an ideal model by focusing on participation among individuals (Machler & Milz, 2015; Duckett, Mckee, Sutherland, Kyle, Boden, Auty, Bessell & Mckendrick, 2017).

The collaborative planning approach is based on exchanging thoughts and approaches among different groups of a society. A mutual relationship between people and planners results in proposing a common solution for the existing problems. Albrecht (2004) is one of the founders of this model (LaFever, 2011).

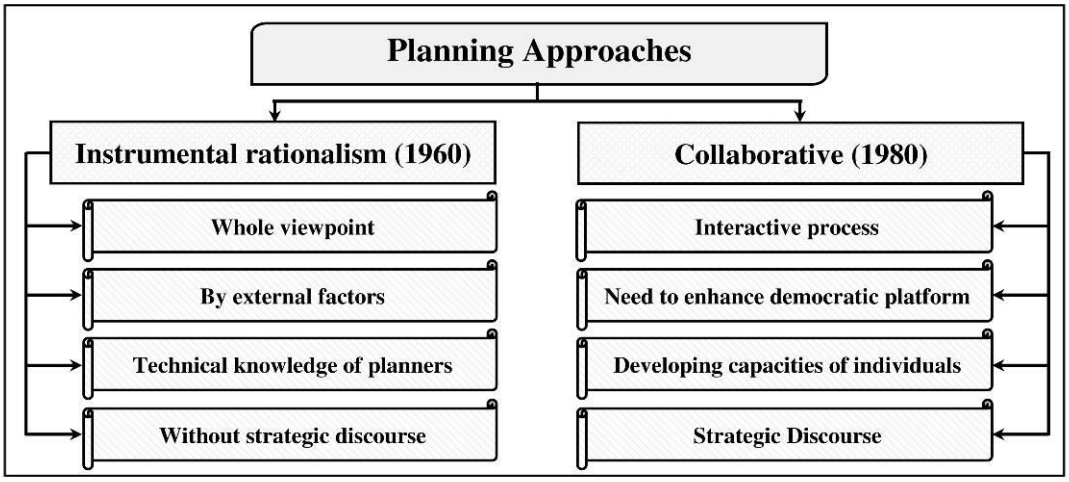

Figure 1. Planning approaches

(Source: Healey 1992, 1997, 2007, Innes, 1995, Hoch, 1996, Mandel, 1996, Alexander, 1997, Habermas, 1985, Umenoto, 2001)

Rural and urban development planning can result in increasing people's choices, empowering people, increasing prosperity, and expanding opportunities and potentials (Soliman, 2004). In this regard, social learning, institutionalization and participation in the planning process should be highlighted. In other words, according to Friedman and Douglass (1978), the local community or empowerment of communities is considered as a key concept for realizing these strategies.

Empowerment based on a participatory strategic approach is considered as the main pillar of rural development planning along with urban development (Chirenje, Giliba & Musamba, 2013). The theory and approach are needed to pass rationalist tendencies based on the instrumental rationalism approach, which had shadowed the planning process in the early 1980s and provide a solid foundation for collaborative and participatory planning (Halla, 2005).

Collaborative planning approach has been incorporated into the geographic literature since the mid-1980s by John Forester (Allmendinger & Tewdwr-Jones, 2002).

Collaborative planning requires constructive communication amongst stakeholders. A wider range of arguments include instrumental technical reasoning, moral reasoning, and emotive reasoning.

In addition, four general principles play a role in constructing constructive communication including comprehensiveness, sincerity, legitimacy and truth. It is worth noting that collaborative planning, as the basis of effective participatory planning, is regarded as a communication process. The text of program is based on a communication product and planners need to possess communication knowledge. In addition, accurate statistics data are important in this regard. According to Hosseini (2001), values and feelings are considered as a part of the program.

Healey (2007) emphasized that applying communication skills in the planning is an important factor in enhancing the quality of the planner's work.

A large number of researchers such as Alexander (1997), Ines (1995), Mandelbaum (1996), emphasized a collaborative planning as a new paradigm of planning theory. Among the proponents of this kind of planning, we can refer to Healey (1997, 2000), who described it as an interactive communication activity, which is regarded as a part of the original theory based on the study of Jorgen Habermas (Martens, 2001). Healey believes that communication rationality is a suitable alternative for planning the current approach, which is essential for empowerment and capacity building.

Accordingly, classical theories have created some challenges in development planning. Based on exogenous and endogenous factors, there are some shortcomings in the planning system. Table 1 presents the main exogenous and endogenous factors.

Table 1. The most important shortcomings of the development planning system among developing countries such as Iran

(Source: Literature and Background of the study, 2018)

Exogenous Factors	Extreme dependency of development planning on single product economy (oil), centralized policies, the role of political economy in development planning, and regional geopolitical impacts on development planning (Regional Security)	
Endogenous Factors	Structural	Understanding the concept of development and establishing the related policies and strategies, lack of development strategy and step-by-step process in development planning, lack of knowledge and understanding the needs of any society, planning rural development by urban planners uncooperatively, the lack of a single viewpoint on Iran development planning, lack of coherent development planning process, lack of integration in city and village, lack of regional planning thinking, the centrality of the development planning system, lack of comprehensive and trusted database, lack of recognition of structural - functional factors of rural space developments by planning system, the gap between planning and research and development, failure to evaluate the proposed implications of development planning on the lives of individuals and community groups
	Institutional and Administrative	The impossibility of individuals and institutions in the process of development planning, the existence of parallel rules, the existence of organizations with similar tasks and the non-functionality of the country's budgeting system
	Collaborative	Non-participation in instrumental rationalism approach, and the absence of political parties and organizations

Considering the comparison of the weaknesses related to the instrumental rationalism approach and the collaborative approach, adopting a collaborative approach is essential for the planning process (Table 2).

Table 2. The comparison between instrumental rationalism approach and collaborative planning theory
(Source: Literature and Background of the study, 2018)

Specifications	Iinstrumental Rationalism approach (IRA)	Collaborative Planning Theory (CPA)
Attitude	Positivist	Communicational
Approach	Top-down	Bottom-up
Reasoning	Technical - instrumental	Emotional, moral (Opinion and Desire, Satisfaction)
Authenticity of Power	Specialization	Dialogue and people's participation with planners
Centered	Proficiency	Local people
Participatory	Planning Specialists	Active participation
Kind of look	City and village as separate networks	City and village as non-core networks
Empowerment and capacity building	Empowerment and unproductive capacity building	Empowering and building the capacity of stakeholder generators and paying attention to indigenous information and knowledge
Knowledge and skills	Passive participation	Advancement skills of stakeholder advancement
Transparency	Uncertain targets and planning policies for the people	Transparent plans and programs, clear goals and policies
Competency	Lack of attention to merits and self-confidence among individuals	Attention to the ability and capacity and strengthening self-confidence among individuals
Meaningful	The person performing the task is not considered meaningful and valuable	The person performing the task is considered meaningful and valuable.
Self-determination	Not allowing people to do different things in order to improve the situation	Individuals are required to do different things in order to improve their situation and their village
Trust and confidence	Do not deal fairly and equally with all people	Paying attention to the principle of equal, fair and equal opportunities to deal with all people
Responding	Lack of planners' response to performance	Planners response to performance
Influence	Individuals do not have the ability to influence their consequences	People have the ability to influence on their work outcomes
Institutionalization	Strengthening government agencies	Creating and strengthening popular organizations
Kind of looking at activities and sections	Focusing on a disintegrated planning, parallel work in programs and activities within and between sectors	Focusing on an integrated planning for linking activities, and sectors and compatibility between them
Relations between elements of power	Lack of interaction between people, manager, and planner	Interaction between people, manager, and planner

2.2. Background Review

Top- down approaches to rural development planning in different parts of the world failed to succeed in promoting living standards among rural and poor areas. There was a consensus in rural planning literature that planning practices failed to understand rural communities and ignore the local people needs (De Meo, Cantiani, Ferretti & Paletto, 2011). During recent years, significant changes have been made in development and rural planning approaches. Instrumental rationalism approach of Top – down attitude has replaced the local and regional approaches with participatory and communicative approaches.

Rationalism in western philosophy from ancient Greece has always been an important element. Expanding and applying rationalism in planning has appeared in the form of a bottom-up and comprehensive planning so that the process is quite easy and is possible through comprehensive planning (Healey, 2000).

In recent years, the content of planning has been shifting from physical to economic and social issues, as well as from technical to communication approaches (Halla, 2005). Transformation needs residents to participate in planning and implementing the development (Choguill, 1999; Ogu, 2000; Steinberg & Sara, 2000). The change is evident at various types of planning such as planning through discussion (Healey, 1992) and collaborative planning (Innes, 1992), reasoning planning (Fischer & Forester, 1993), advisory planning (Forester, 1999), and revealed planning (Allmendinger & Tewdwr-Jones, 2002).

Collaborative planning should involve some characteristics like planning as an interactive and interpretative process among the societies with independence and discourse. In addition, it focuses on the area where problems, strategies, and values

are recognized and evaluates the developing people's capacities and their evaluating during the planning stages (Gibbens, 2012).

Paul reported that the World Bank experiences in collaborative partnership projects show that planning done with expert originality is regarded as non-participatory (Paul, 1987). Ondrik (1999) believes that the participatory approach to the development planning process will lead to wider participation and engagement of key stakeholders, public transparency, and accountability in different organizations and institutions. In addition, participatory approaches are undertaken by the government and development planners and sustainability requires the empowerment, capacity building and participation (Ondrik, 1999).

Therefore, in the process of planning, the approach should be adopted in such a way that it can enable individuals to take control of development. The optimal planning pattern should be accompanied by capacity building to meet future needs, recognize the needs of the community, and empower people in the process of development (Kennedy, 1996).

Further, the United Nations in a report in 2005 entitled *Decentralized, reducing poverty, empowerment and participation* emphasized that empowering, capacity building, transparency, responding to the needs of local communities in development planning will encourage local governments to engage in a constructive dialogue with civil society and are regarded as the best way to measure the needs related to local communities. Based on the evidence from the Philippines, Nepal, Indonesia, India and Fiji, decentralized forms of conflict resolution, participation and empowerment of civil society have been considered as national priorities (United Nations, 2005).

In this context, according to Amdam (2006), a different form of planning is needed with regard to each state and political system. Collaborative planning is a prerequisite in the existing structure based on the partnership between the private sector government and volunteering at the local, regional, national, and international levels. Therefore, shifting instrumental rationalism approach to collaborative approach in planning is considered as an important factor for enhancing participation, empowerment and other new ideas in the development process (Amdam, 2006).

Further, in another in Africa, Matovu (2006) reported that the local level focuses on the bottom–up and participatory planning approach. In the process of planning, the creation of capacity building at all levels and sectors related to society empowerment and capacity building are the product of planning process and its implementation is possible just through a satisfactory investment. However, many central governments, especially in developing countries, have not made any attempt to build capacity and empower people at low level although investment in capacity building is considered as a top priority (Matovu, 2006). In another study, the role of public participation was highlighted as a key component in planning for development over 30 years (Twitchen & Adams, 2011). The positive and converging role of rural-urban planning is emphasized for the socio-economic development and sustainability of rural settlements and urban centers throughout the region (Shafiei Sabet & Azharianfar, 2017).

Today, interactive policies and integrated rural-urban planning have been regarded as a development planning among the developed countries (Njoh, 2011). Paying attention to local stakeholders' empowerment and participation in planning process is considered as one of the most important issues (Amundsen & Martinsen, 2015; Spath & Scolobig, 2017). There has not been much research in Iran on planning and focusing on empowering local stakeholders. The results show that the rationalist approach has many weaknesses because of its specialty driven and non-participatory character. In the current situation, adopting a communication approach is one of the important requirements of the country's rural development planning process (Eftekhari & Behzadnasab, 2004). There is no common understanding of this type of development in rural development planning in Iran and such planning does not have the necessary intellectual and epistemological coherence. It seems that this theory has not yet found good support for sustainable rural development (Zahedi & Ghafari, 2012).

Table 3 presents the indicators emphasized by different researchers in the planning process based on theoretical foundations, literature, and background.

Table 3. Indicators underlined by different researchers in the process of rural development planning based on sustainable development approach and dimensions and indices of sustainable rural development
(Source: Literature and Background of the study, 2018)

	Index	Researchers
Planning Approach	Training and Informing	(Matovu, 2006); (Amundsen & Martinsen, 2015); (Behzad nasab, 2005) (Eftekhari & Behzadnasab, 2004) (Spath & Scolobig, 2017)
	Knowledge and skills	(Amdam, 2005); (Matovu, 2006) (Behzad nasab, 2005) (Eftekhari & Behzad nasab, 2004)
	Clarification	(Healey, 1992)
	Competency	(Thomas & Velthouse, 1990); (Spreitzer, 1995); (Gyamfi-Kumanini, 1996); (O'Bannon, 2003); (Rist et al, 2007); (Fernandez & Moldogaziev, 2015)
	Meaningful	(Thomas & Velthouse, 1990); (Spreitzer, 1995); (Gyamfi-Kumanini, 1996); (Matovu, 2006); (Fernandez & Moldogaziev, 2015)
	Self determination	(Gyamfi-Kumanini, 1996); (Dab, 2013); (Fernandez & Moldogaziev, 2015)
	Trust and Confidence	(Fernandez & Moldogaziev, 2015)
	Effect and Effectiveness	(Wellbrock, 2013); (Dab, 2013); (Fernandez & Moldogaziev, 2015)
	Institutionalism	(Honadle & Hannah, 1982); (Healy, 1992); (Isaac & Harilal, 1997); (Rossberger & Krause, 2015)
	Participatin	(Paul, 1987); (Kennedy, 1997); (Matovu, 2006); (Twitchen & Adams, 2011); (Ristić, 2013); (Wellbrock, 2013)
	Integration and compatibility between activities	(Douglass, 1998); (Tacoli, 1998)
Sustainable Development	Environmental – Ecological, Socio-cultural, Economic, Physical – Infrastructure	UN, 2006, 2009 UNECA, 2006 OECD, 2001

3.2. Theoretical model of the study

Based on the literature review, the theoretical approach of the present study is based on the conceptual model proposed in Figure 2. Thus, the main hypothesis raised is whether the facilitators of the method and process of empowerment of local stakeholders and government policies as an effective factor with all its dimensions and indicators influence the promotion of sustainable rural development indicators and whether there is any interaction among them or not (Fig. 2).

3. Research Methodology

3.1 Geographical Scope of the Research

The rural settlements of the study area are located in the South and Southeast territory of Tehran (Figure 3).The area is 2874 square kilometers, which comprises 11.94% of the total area of the province of Tehran (Statistical Center of Iran, 2012). The area is mathematically located at 51 degrees, 40 minutes and latitude is 35 degrees and 28 minutes. According to the 2011 census results, there are 5 districts, 7 cities and 124 villages in the area.

3.2. Methodology

The present study was based on a descriptive – analytical method. Correlation test and multivariate regression were used to provide a meaningful framework. Library and field studies were used for data collection. Library method was used to understand the impact of policy implementation and planning approach on the socio-economic empowerment of local stakeholders for their socioeconomic participation in sustainable rural development and the study of previous research experiences and other countries on appropriate planning. Field survey was utilized for collecting the field data. The field survey method was used for collecting the field data in relation to indicators, items and measures of effective factors including facilitators of the method and process of empowering local stakeholders and governmental policy-making and impressionable factors including dimensions and indicators of sustainable rural development. Then, a village questionnaire was developed.

The statistical population of the study is 124 villages in south and southeast of Tehran. Random sample size for completing the questionnaire of local authorities at village level, using Cochran formula and its adjustment formula for small statistical population, with 95% confidence level and probability of 0.05 and prediction of variance S^2 0.25 = sample size of 54 villages was achieved. The villages were selected on the basis of size. In these 54 villages, 450 questionnaires were completed according to size by specifying sample size in each village. In some villages, the number of households to generalize to the entire statistical population was less than four, so we increased the number of sample households to five.

Initially, the focus group interview technique was used at the level of managers and experts of the related organizations and institutions. In addition, the idea of scholars and university professors about the research questions was asked using 30 + 1 questionnaires in different dimensions of the theme and with qualitative and open questions and then the quantitative questionnaires were reviewed. Indeed, after a precise examination of the ideas of local authorities, the experts of the relevant organizations, researchers and university professors, the quantitative questionnaire was developed for household and village analysis based on their ideas. Data analysis was performed using SPSS 24. The formal validity of the questionnaire was conducted based on the idea of experts and specialists. The reliability of the questionnaire in relation to the qualitative questions with five options, ranging from a very low value of 1 to a very high value of 5, was adapted from sustainability guideline of UNEP and WTO (2005). The reliability of the questionnaire through Cronbach's alpha was 0.801 (Table 4).

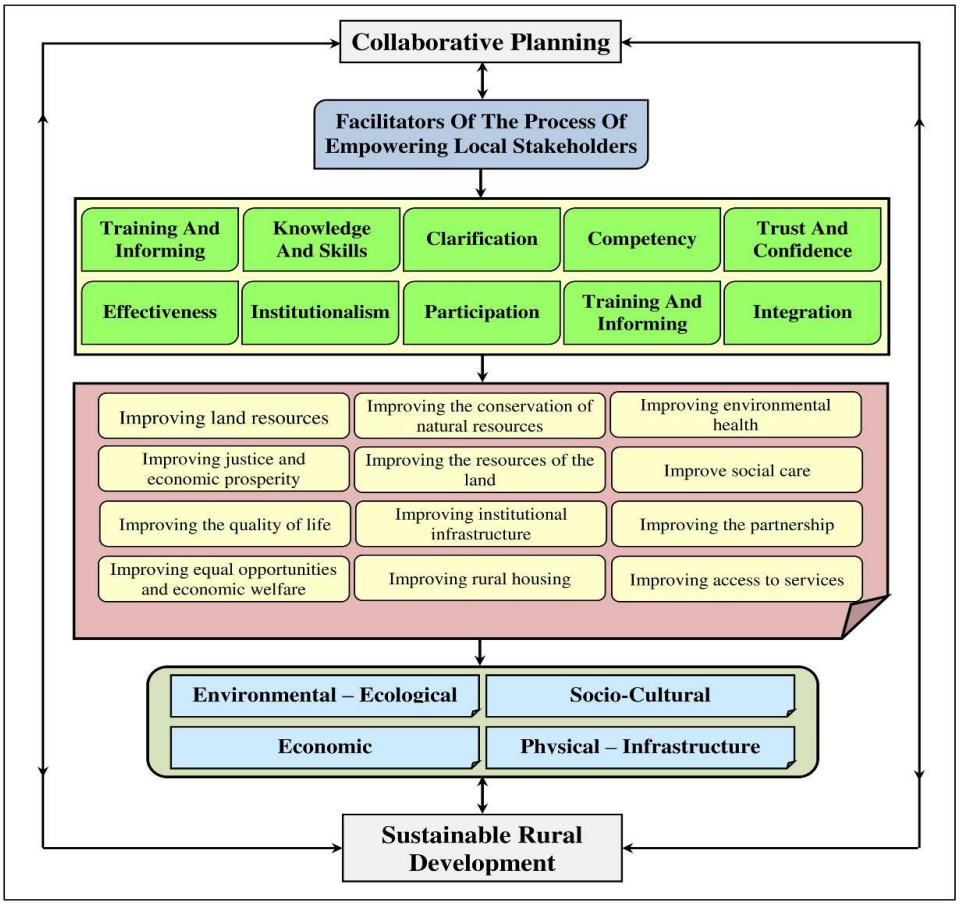

Figure 2. The conceptual model based on the literature review of the study
(Source: Research findings, 2018)

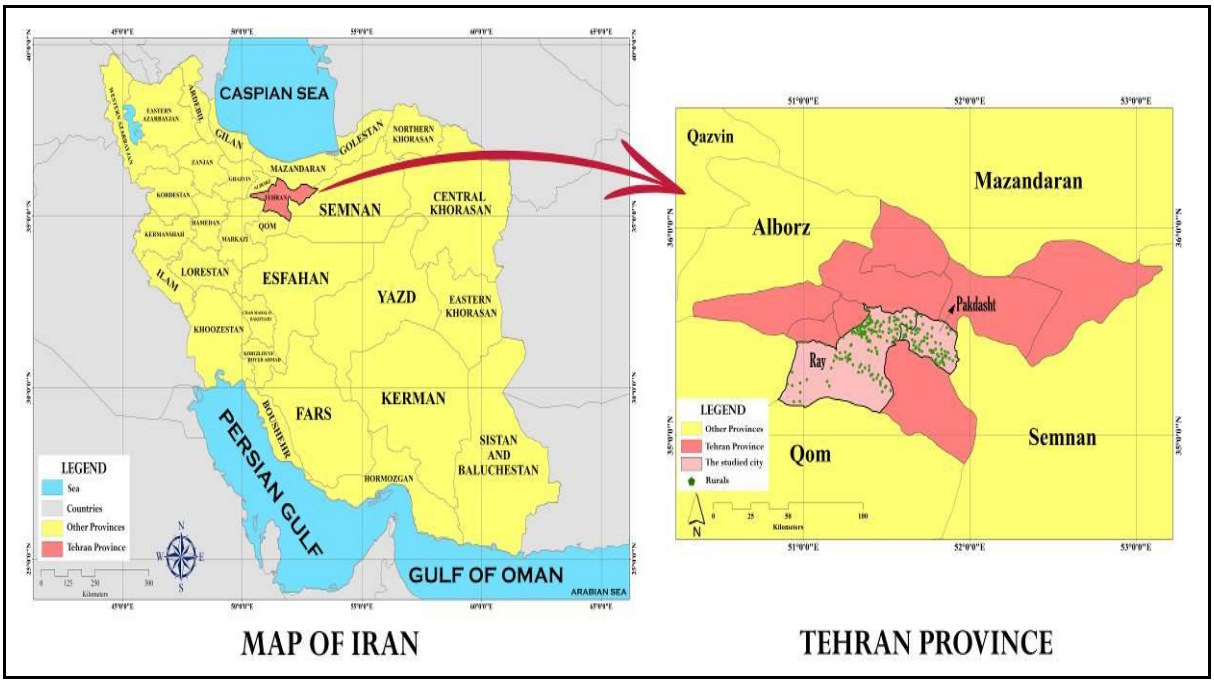

Figure 3. The location of villages in the Tehran province and in Iran
(Source: Research findings, 2018)

Table 4. The reliability of the questionnaire
(Source: Research findings, 2018)

Mean	Variance	Standard Deviation	Cronbach's alpha
281.81	1809.298	42.536	0.801

Table 5. Names of villages with sample size per village
(Source: Research findings, 2018)

County	Sample village name	Number of households	Number of samples per village
Pakdasht	Nik	52	5
	Mandakan	75	5
	Kahrizak	78	5
	Abbas abad	59	5
	Hesar abad	55	5
	Heydar abad	67	5
	Kabood gonbad	283	5
	Abdol abad	134	5
	Gheshlagh feron abad	178	5
	Erambooye	481	7
	Gheshlagh karim abad	225	5
	Ghermez tape	342	5
	Jamal abad	554	8
	Jito	684	10
	Ghale no	801	12
	Ebrahim abad	594	9
	Karim abad	618	9
	Filestan	1258	16
Rey	Vijin paeen	66	5
	Najm abad	92	5
	Esmaeel abad	68	5
	Esmaeel abad moein	87	5
	Azim abad	95	5

County	Sample village name	Number of households	Number of samples per village
	Andarman	97	5
	Hosein abad gardane	50	5
	Kabir abad	84	5
	Hamze abad	100	5
	Ghale no fashapooyeh	99	5
	Kenar gerd paeen	58	5
	Lape zanak	100	5
	Kolin	158	5
	Khanlagh	145	5
	Chale tarkhan	195	5
	Eshgh abad	333	5
	Gol kabir tape	286	5
	Deh kheir	670	10
	Zivan	222	5
	Sadegh abad	243	5
	Emad avar	188	5
	Tabaeen	358	5
	Ghani abad	418	6
	Darsoon abad	271	5
	Ebrahim abad	783	12
	Zaman abad	863	13
	Eslam abad	2804	30
	Torghooz abad	780	12
	Taleb abad	710	11
	Ghale no khalese	1476	23
	Ghooch hesar	1154	18
	Solombor	796	12
	Anis abad	884	13
	Shoor abad	628	9
	Firooz abad	2416	30
	Sham abad	959	15
Total		25274	450

3.3. Indicators of the study

Based on instrumental rationalism approach the empowerment and participation of people and villagers is underestimated based on the method of rural development planning in Iran and Tehran region. Thus, in the present study, the challenges related to this scant attention to the dimensions and indicators of the method and process of empowering villagers to participate in the planning process were examined. A total of 13 indicators and 87 items were determined based on the literature review, the background of the research, and the opinions of experts at the regional and national levels (Table 6).

Then, the effective components of the study based on the dimensions of sustainable rural development such as environmental, ecological, socio-cultural, economic, and physical-infrastructural and the experts' opinions were determined according to the conditions of Iran and the study area. Thus, four dimensions were measured by nine indicators in 34 positions (Table 7).

Table 6. Components and indicators of the effective study

(Source: Research findings, 2018)

Empowerment indicators	Number of items
Training and awareness	11
Skills and human resource development	7
Transparency	6
Empathy and accountability	5
Institutionalization	5

Empowerment indicators	Number of items
Participation	12
Empowerment process indicators	
Competency	4
Meaningfulness	4
Self-determination	4
Trust	7
Efficiency and Effectiveness	3
Policies	
Integrity of activities and their compatibility	15
Adjusting the relationships among power elements	2

Table 7. Dimensions, indicators and stages of sustainable development (effective research component)
(Source: Research findings, 2018)

Dimensions	Index	Number of items
Environmental-ecological	Improving the resources of the land	6
	Improving environmental health	3
Socio-cultural	Improve social care	2
	Improving the quality of life	4
	Improving institutional infrastructure	3
	Improving the partnership	1
Economic	Improving equal opportunities and economic welfare	5
Physical - Infrastructure	Improving rural housing	5
	Improving access to services	5

4. Research Findings

4.1. Characteristics of subjects

Among the questionnaires completed by rural settlements in the study area, about 57.5% of the respondents were male and 42.3% were female. Respondents were classified into five groups based on age. In general, the average age of respondents is 39 years old and the highest frequency is in the age group of 35-44 years old, which equals to 34.25% of respondents in this category. The youngest respondents were 22 years old and the oldest were 64 years old. Further, the results indicated that about 25.7% of respondents had high school education, 12.6% had a bachelor's degree, and 9.1% had master's degree and higher (Table 8).

Table 8. Descriptive statistics for the participants
(Source: Research findings, 2018)

Variable		Villagers		Experts	
		N	%	N	%
Gender	Male	260	57.7	14	45.1
	Women	190	42.3	17	54.8
Education	Elementary	157	34.9	0	0
	Guidance	79	17.7	0	0
	High school and diploma	116	25.7	0	0
	Associate degree and Bachelor	57	12.6	0	0
	Master and higher	41	9.1	31	100
Job	Employee	70	1.5	31	100
	self-employment	140	31.1	0	0
	Farmer	175	38.8	0	0
	Other cases	65	14.4	0	0

4.2. Measuring the impacts of policies and planning approaches on empowering local stakeholders and promoting sustainable rural development indicators

The policies and approaches governing the development planning system in Iran have created some challenges in the process of empowerment, which prevent from promoting sustainable development indicators. Thus, as shown in Table 9, the average environmental, ecological, socio-cultural and economic dimensions are undesirable and lower than average condition and it is in a moderate level only in the physical-infrastructural dimension.

Table 9. Mean, variance and standard deviation of sustainable rural development dimensions
(Source: Research findings, 2018)

Dimensions of sustainable rural development	M	Variance	SD
Environmental - Ecological	2.28	0.393	0.627
Sociocultural	2.35	0.383	0.619
Economic	2.15	0.317	0.563
Physical - Infrastructure	2.96	0.527	0.726

4.3. Relationship between the method and process of empowering local stakeholders and promoting sustainable rural development indicators

Pearson correlation test was used to analyze the relationship between each of the components of the method and the process of empowerment and policies with sustainable rural development. The results indicated that there is a significant relationship between the three components with stable development at 1% confidence level (Table 10).

In other words, the mean of the effective component was lower than the mean and the mean values of the indicators of sustainable development were lower than the mean. Therefore, there is a direct linear correlation between the indicators related to the method and the process of empowerment, local government policy making and sustainable development. Regarding the study area, the approach and policies focused on rural development planning failed to promote the development of sustainable development indicators.

Table 10. The relationship between local stakeholder empowerment process, government policy and promotion of sustainable rural development indicators
(Source: Research findings, 2018)

Component	Effective component	Pearson Test		Correlation
		Sig	r	
Empowerment method	Sustainable rural development	0.000	0.436	+
Empowerment process		0.000	0.374	+
Local government policy		0.000	0.402	+

4.4. Evaluating the indicators related to methodology and process of empowerment of local stakeholders, local government policy and rural sustainable development

The results of Pearson correlation test indicated a significant relationship (P>0.05) between education and awareness components (10 items), knowledge and skills and human resource development (7 items), transparency (6 items), trust and confidence (7 items), participation (12 items) and the integration of activities and compatibility (12 items), and planning with developing components (Table 11).

In fact, there is a relationship between education and awareness indicators, knowledge and skills, and the development of human resources, the transparency, integration of activities and their compatibility with the indicators of sustainable rural development in the area under study.

Thus, promoting these indicators in the planning process will promote the indicators related to sustainable rural development in rural settlements.

Table 11. The relationship between indicators of the component of empowerment of local stakeholders, local government policy making with rural sustainable development
(Source: Research findings, 2018)

Empowerment and Participation Indicators	Dependent variable	Kendall's tau_b test Villagers' viewpoints		Correlation	Kendall's tau_b test Experts' viewpoints		Correlation
		P	r		P	r	
Training and awareness	Sustainable rural development	0.020	0.276	+	0.050	0.255	+
Knowledge and skills		0.045	0.274	+	0.006	0.245	+
Transparency		0.038	0.283	+	0.042	0.265	+
Empathy and accountability		0.181	0.185	-	0.171	0.175	-
Institutionalization and formation		0.231	0.166	-	0.228	0.145	-
Participation		0.014	0.199	-	0.017	0.191	+
Competence		0.677	0.058	-	0.679	0.053	-
Meaningfulness		0.499	0.094	-	0.506	0.086	-
Self-determination		0.217	0.171	-	0.213	0.157	-
Trust and confidence		0.016	0.190	+	0.015	0.186	+
Efficiency and Effectiveness		0.080	0.241	-	0.084	0.220	-
Integrity of activities and compatibility between them		0.007	0.364	+	0.008	0.353	+
Adjusting the relationship between power elements		0.158	0.187	-	0.172	0.173	-
** Significance level at 99%							

4.5. Final evaluation of policy implications and planning approach in the methodology and process of empowerment among local stakeholders for sustainable rural development

After analyzing and predicting the impacts of the indicators related to the method and process of empowerment with the indicators of sustainable rural development, a significant positive correlation was observed among six indicators related to the empowerment method and process including training and awareness, knowledge and skills, transparency, trust and confidence, participation, integration of activities and their compatibility with respect to sustainable development component among rural areas in the study area (Table 12).

However, as shown in Table 12, no significant correlation was observed among the indicators of competence, self-determination, empathy and accountability, impact and effectiveness, institutionalization and formation, participation and regulation of relationships between elements of power. In addition, six indicators were analyzed through multivariate regression. Based on the results in Table 13, there is a correlation between the components of the empowerment method in the planning process and the rate of promotion in sustainable rural development indicators (r= 0.486).

Further, the adjusted coefficient of determination indicates that 13.9% of the changes in the level of improvement related to sustainable rural development indicators are explained through the linear combination of the six components related to the empowerment.

Table 12. Regression results of main variables and the promotion of sustainable rural development
(Source: Research findings, 2018)

Model	Multiple Correlation Coefficient (r)	Coefficient of Determination R^2	Adjusted moderated coefficient	Standard error of measurement
1	0.486	0.236	0.139	0.590

Furthermore, as shown in Table 14, based on the calculated value for F and the significance level of 0.040, the linear correlation of the effective components can explain and predict the changes in

the effective component (the promotion of sustainable development indicators).

Table 13. Results of ANOVA for determining the regression effect related to main variables in improving sustainable rural development

(Source: Research findings, 2018)

Model		Sum of squares	df	Mean squares	F	Sig.
1	Effect of regression	5.060	6	0.843	2.422	0.040
	Residue	16.336	47	0.348		
	Total	21.426	53			
a: Dependent Variable: Sustainable rural development b: Predictors participation, transparency, integrity of activities and compatibility between them, knowledge and skills, trust and confidence, education and awareness						

Finally, based on the standardized coefficient, the results indicated except for the integration of activities and their compatibility, other indicators in this model were not significant. In fact, due to the policy and approach to the Iranian planning system, the promotion of sustainable rural development indicators in pre-urban settlements have not been affected by any of the indicators related to local stakeholder empowerment, which have been less emphasized in explaining sustainable rural development. The only significant indicator is related to the integration of activities and their compatibility (Table 14). Therefore, rural development planning is fully focused and non-participatory in Iran and was not effective in any of the indicators related to local stakeholder's empowerment which promotes these indicators in the process of sustainable rural development.

Table 14. Coefficients of the effect of independent variables on dependent variables based on rural residents' viewpoints

(Source: Research findings 2018)

Model	Description	Non- standard coefficient		Standard coefficient	t	sig
		B	Std	β		
1	Integrity of activities and compatibility between them	397	0.196	0.280	2.025	0.049

Therefore, due to the lack of significance of local stakeholders' empowerment indicators in the regression model, and considering that the indicators of the methodology and process of empowerment of local stakeholders failed to predict the future status of promoting sustainable rural development indicators in the area under study, some changes should be emphasized in the rural development planning approach in order to reduce the challenges of the sustainable rural development process and achieve community-based collaborative planning opportunities. However, the villagers have no role in the planning process in the present situation in the vicinity of the metropolis in Tehran.

The lack of attention to empowerment facilitators of villagers in the rural planning process from decision making to implementation and monitoring has led to reduction of rural sustainable development indicators in the studied area. The results of the present study are inconsistent with the findings of the Issac and Harilal (1997), Blayer (2000), Kan NG (2008) and Risit (2013). In other words, in these studies, policies are being used to strengthen the facilitators of the method and process of empowering local stakeholders by informing collaborative planning and paying attention to social justice through the participation of local stakeholders. Community-based development and implementation of empowerment and capacity-building programs, and the participation of all stakeholders in the planning process, have led to greater synergy between the government and the local community and, consequently, sustainable development in rural areas. The results are consistent with the findings of Forster (1980), Almendinger (2002), Ondrik (1999), Eftekhari and Behzad Nasab (2004) in terms of shifting the planning approach toward the collaborative approach. Also it is consistent with

the findings of Kennedy (1997) and Amand (2007) in terms of paying attention to empowerment and promoting its indicators in the development planning process. The lack of promotion of local community empowerment indicators and the low level of sustainable development indicators have been highlighted. In Iran and the countries with similar conditions, planning system cannot influence the improvement of the life quality of local stakeholders hence the "bottom-up" and "collaborative" planning approach and attention to issues such as improving the management system of organizations and rural development institutions through the implementation of participatory methods, empowerment, participation, knowledge, training, transparency, trust, Effectiveness, self-determination, meaningfulness, etc. are emphasized.

4.6. Appropriate planning method and practice for rural development (opportunities)

As it was already mentioned, the approach taken by the rural planning system in the present situation is devoid of the necessary structure for empowerment and participation of rural inhabitants in the process of sustainable rural development. In addition, establishing and expanding a stakeholder's group have been less emphasized in Iran.

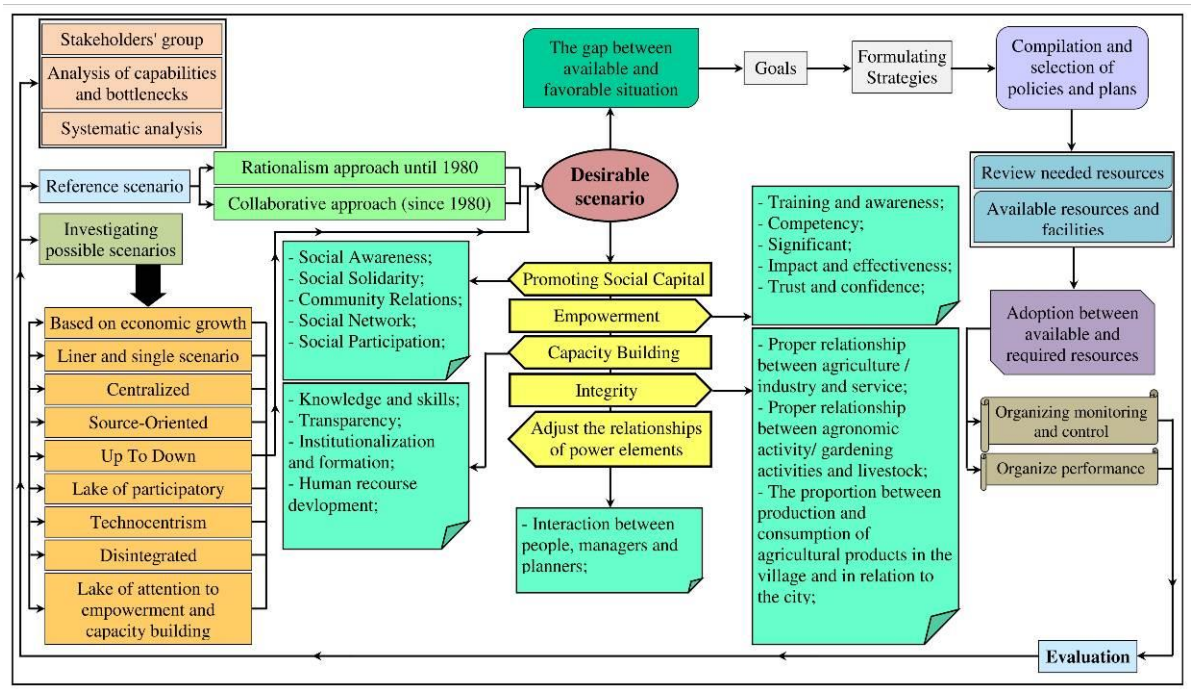

Figure 4. The pattern of planning steps to achieve the desired rural development planning model
(Source: Research findings, 2018)

Therefore, changing the planning pattern with the current approach of governing the planning process, as well as paying attention to the problem-oriented and stakeholder planning process will provide a good opportunity to use the capacities of the local stakeholder. In other words, the stakeholder's group should be established based on the proposed perspectives and challenges. In addition, the efficient use of financial, physical and administrative resources, as well as the most effective use of human and social capital should be highlighted for empowering productive local stakeholders. Planning in this way is regarded as a new approach for using resources and opportunities. Furthermore, establishing stakeholders' group which can directly and indirectly affect the economic, social and cultural of rural sustainable development in each area can pave the way for growth and development.

In this regard, implementing programs and projects, adhering managers and officials to contribute to local villagers and stakeholders, establishing communication between managers and planners with local stakeholders for participation in programs and projects, setting the ground for interaction and participation between experts and

villagers in relation to agricultural and non-agricultural activities, involving people in different decisions, planning and implementing programs, and participating in the interests of development projects are regarded as some factors which have not been emphasized in rural settlements. Thus, these factors should be highlighted by changing the attitudes and approaches toward a community-based approach and involving local stakeholders in the process of rural planning.

5. Discussion and Conclusion

Creating a balance between the development of the city and the countryside plays a significant role in the social and economic life among the inhabitants (Shen et al, 2012). In addition, top-down approaches in rural development planning in different parts of the world were not successful in improving living standards among rural and poor areas. Based on the literature and experience of rural planning, there was a consensus that inappropriate development and planning methods have largely ignored the feelings, needs, and perceptions among the local people. Thus, the present study aimed to evaluate the governing approach for planning rural settlements around Tehran in Iran by implementing the most important indicators affecting the formation and expansion of empowerment. To this aim, the relationship between the indicators related to the methodology and the process of empowering the local stakeholders with those of sustainable rural development was measured. The findings of the present study on the non-participation of planning and utilization of empowerment and capacity building in projects to enhance the level of development are in line with finding research of Powell (1987) and Rokneddin Eftekhari and Behzadnasab (2004). It is also in line with the findings of Kennedy (1996), Twitchen and Adams (2011), Amoundsen and Martinsen (2015) and Spath and Scolobig's (2017) study in terms of capacity building, empowerment and its indicators, including education, knowledge and skills as well as participation in the optimal planning model. But the results of the present study in Iran do not correspond to those of the Philippines, Nepal, Indonesia, India, Fiji and Njoh research in 2011 because these countries do not have expert planning systems and have taken decentralized forms of conflict resolution, participation and community empowerment as national priorities. In addition, in terms of changing the planning approach from a technical-instrumental to collaborative in case of promoting participation, empowerment, and other new ideas in the development process, it is in line with the findings of the Adam (2006), Matthew (2006), Machler and Milz (2015), Duckett, Mckee, Sutherland, Kyle, Boden, Auty, Bessell & Mckendrick (2017). And in terms of convergence of rural-urban planning for the socio-economic development and sustainability of the settlements it is in line with finding research of Shafiei Sabet and Azharianfar (2017).

The findings confirmed the positive effect of the indicators related to the method and process of empowerment and the participation of villagers in rural planning on the economic, social, environmental and physical environment in the rural sustainable development infrastructure. Increasing the use of villages and their capabilities in the planning process will improve the socio-economic indicators of urban rural settlements, which is regarded as a tool for the local government to balance the socioeconomic conditions of urban rural settlements at the regional levels. Accordingly, based on the development literature, the present research emphasized the collaborative planning approach in regional balanced conditions in developing and empowering local stakeholders in order to promote ecological, social, and cultural, economic and environmental indicators. In this regard, sustainable development of the regions is effective by choosing the appropriate social and economic policies of the government based on development planning. Therefore, the proper understanding of the relationships between rural and urban environments can lead to structural and functional changes in the existing relationships and in planning to establish a favorable relationship between the stakeholders and two-way equilibrium functions with the authorities and encourage sustainable development policy by the government and integrated development in urban rural areas.

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سیاست‌ها و رویکرد برنامه‌ریزی: چالش‌ها و فرصت‌های توانمندسازی ذینفعان محلی و توسعه پایدار روستایی (مطالعه موردی: روستاهای جنوب و جنوب شرق تهران)

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چکیده مبسوط

۱. مقدمه

در کشورهای در حال توسعه، روستاها در مقایسه با مناطق شهری از پیشرفت کمتری برخوردارند؛ و سرمایه گذاری کافی در زیرساخت ها و فعالیت های اقتصادی آن‌ها وجود ندارد، از این رو، با چالش های جدی در زمینه ارتقاء شاخص‌های توسعه پایدار روستایی نظیر: محیطی ـ اکولوژیک و اجتماعی ـ اقتصادی مواجه هستند. منطقه مورد مطالعه این پژوهش نیز، سکونتگاه‌های روستایی جنوب کلانشهر تهران، به مثابه یکی از گونه های روستایی پیرامون کلانشهری درکشورهای درحال توسعه، از دیر باز با محرومیت و پایین بودن سطح توسعه یافتگی رو به رو بوده است. اهمیت موضوع رویکرد و روش برنامه ریزی توسعه روستایی در این قلمرو و روستاهای آن نیز اهمیت توسعه یافتگی و بهزیستی جوامع روستایی و این‌که بیشترین افراد آسیب پذیر و فقیر در کشورهای درحال توسعه در مناطق روستایی زندگی می‌کنند، ایجاب می‌کند تا شناخت علمی و دقیق تری به مسألهٔ ارتقاء شاخص‌های توسعه پایدار روستایی و رویکرد و روش برنامه ریزی روستایی پیدا کنیم. براساس این پژوهش به دنبال پاسخ‌گویی به پرسش های زیر است: ۱- به‌کارگیری رویکرد برنامه‌ریزی مجزا و متخصص محور در روش و مراحل انجام برنامه‌ریزی توسعه چه چالش‌هایی در روش و فرآیند توانمندسازی و مشارکت ساکنان روستایی پیرامون کلان‌شهر تهران در منطقه موردمطالعه در فرآیند توسعه پایدار به همراه داشته است؟ ۲- اتخاذ این رویکرد درروش و مراحل برنامه‌ریزی چه پیامدهایی در فرآیند توسعه پایدار روستایی درپیرامون کلان‌شهر تهران در منطقه موردمطالعه داشته است؟ الگوی متناسب برنامه‌ریزی توسعه برای روستاهای ییرامون کلانشهری همچون تهران کدام است؟

۲. مبانی نظری تحقیق

ازآنجاکه سابقه و تجربه برنامه‌ریزی در ایران با عمر و تجارب نظریه‌پردازی در ادبیات توسعه تقریباً برابر است؛ می‌توان تأثیر این الگوها، نظریه‌ها، رویکردها و راهبردها را در برنامه‌های توسعه این کشور به‌طور عام و برنامه‌های توسعه روستایی آن به‌طور خاص ردیابی کرد. در فرآیند توسعه روستایی دو مقوله به‌وضوح از یکدیگر قابل‌تفکیک و هم‌زمان نیازمند توجه هستند:

۱-دیدگاه، اهداف و رهیافت‌های حاکم بر فرایند توسعه روستایی؛ ۲- فرایند حاکم بر روند و چگونگی عمل برنامه‌ریزی توسعه روستایی است؛ تاکنون دو رویکرد «عقلایی گرایی» و «ارتباطی» درباره چارچوب و فرآیند برنامه‌ریزی توسعه مطرح بوده‌اند که در کشورهای در حال توسعه [همچون ایران] استفاده از رویکرد عقلایی گرایی در فرآیند برنامه‌ریزی غلبه داشته است؛ و رویکرد ارتباطی که از اواخر قرن بیستم در ادبیات برنامه‌ریزی جهان موردتوجه قرارگرفته، هنوز کاربرد چندانی پیدا نکرده است. توانمندسازی با رویکرد راهبردی مشارکتی به‌عنوان ارکان اصلی برنامه‌ریزی توسعه روستایی در کنار توسعه شهری مطرح می‌شود؛ که خوداتکایی مردمی، آزادسازی فرهنگی، دسترسی به حقوق در بعد اقتصادی، اجتماعی و فرهنگی، و وجود یک فضای مشارکتی در همه جنبه‌های تلاش انسانی از پیش‌شرط‌های این نوع برنامه‌ریزی جدید است.

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۳. روش تحقیق

برای بررسی وضع موجود روش برنامه‌ریزی مجزا و متخصص محور در ناحیه موردمطالعه و برای تبیین دقیق سؤال‌های پژوهش، تحقیق حاضر با استفاده از روش توصیفی- تحلیلی انجام‌شد. همچنین، برای ارائه چهارچوب معنی‌داری مجموعه‌ای از روش‌ها از جمله آزمون همبستگی و رگرسیون چند متغیره در کلیتی منطقی و در قالب فرآیند علمی پژوهش استفاده‌شد. جمع‌آوری اطلاعات به دو شیوه کتابخانه‌ای و میدانی صورت گرفته اطلاعات موردنیاز از روش بررسی منابع کتابخانه‌ای و پیمایش میدانی حاصل شد.

۴. یافته‌های تحقیق

عبور از الگوی برنامه ریزی منبع گرا با اصالت متخصص(براساس سیاست و رویکرد برنامه‌ریزی حاکم برایران)؛ و توجه به فرآیند برنامه‌ریزی مسئله‌گرا و ذینفع محور، فرصت مناسبی برای استفاده از ظرفیت‌های ذینفعان محلی فرآهم می سازد. به‌گونه‌ای که با در نظر گرفتن چشم‌اندازها و چالش‌ها به دنبال ایجاد هسته‌های خط دهنده می‌باشد؛ تا بر اساس آن سازمان های مردم نهاد و تشکل های روستایی، اهداف و سیاست‌ها را طراحی و تدوین کنند. اهداف اصلی هسته‌های خط دهنده حل مشکلات اصلی و شکل‌دهی قطب‌های خط دهنده و نه همه مسائل است. علاوه بر این استفاده کارا از منابع مالی، فیزیکی و اجرایی و از همه مهتر استفاده کارا از سرمایه‌های اجتماعی، انسانی و نمادین و توجه به بحث توانمندسازی مولد ذینفعان محلی می‌باشد. هسته‌های کلیدی، منبع اصلی ایجاد نهضت توانمندسازی مولد هستند. تشکل‌ها با برقراری ارتباط سازنده بین دانش بومی و دانش کارشناسان هدف پیام را منتقل کنند. برنامه‌ریزی به این شیوه برنامه‌های جاری را نفی نمی‌کند، بلکه رویکرد نوینی برای استفاده از منابع و فرصت‌ها است. در این راستا، مشورت در اجرای برنامه‌ها و پروژه‌ها، پایبندی مدیران و مسئولین برای مشارکت دادن روستاییان و ذینفعان محلی، برقراری ارتباط بین مدیران و برنامه‌ریزان با ذینفعان محلی برای مشارکت در برنامه‌ها و پروژه‌ها، فراهم کردن زمینه تعامل و مشارکت کارشناسان با روستاییان در ارتباط با فعالیت‌های کشاورزی و غیر کشاورزی، دخالت مردم در تصمیم‌گیری‌های مختلف، دخالت مردم در تدوین برنامه‌ها و اجرای طرح‌ها، شراکت در منافع حاصل از طرح‌های توسعه و غیره از جمله مسائلی است که در در فرآیند برنامه‌ریزی روستایی موردتوجه می‌باشد.

۵. بحث و نتیجه گیری

این مقاله با به‌کارگیری مهم‌ترین شاخص‌های اثرگذار در شکل‌پذیری و گسترش توانمندسازی به بررسی رویکرد حاکم بر برنامه‌ریزی سکونتگاه‌های روستایی پیرامون کلان‌شهر تهران در ایران پرداخته است. با افزایش به‌کارگیری روستاییان و توانمندی‌های روستایی در فرآیند برنامه ریزی، باعث بهبود شاخص های اجتماعی ـ اقتصادی سکونتگاه‌های روستایی ـ شهری می‌گردد؛ که این خود وسیله‌ای برای دولت محلی به منظور تعادل بخشیدن اجتماعی ـ اقتصادی سکونتگاه‌های روستایی ـ شهری در سطوح ناحیه‌ای و منطقه‌ای است. بدین ترتیب، بر اساس ادبیات توسعه، پژوهش حاضر بر اهمیت رویکرد برنامه‌ریزی ارتباطی در شرایط متوازن ناحیه‌ای در شکل‌پذیری و گسترش توانمندسازی ذینفعان محلی برای ارتقاء شاخص‌های محیطی ـ اکولوژیکی، اجتماعی و فرهنگی، اقتصادی و محیط زیستی تأکید دارد. در این راستا، توسعه پایدار مناطق از طریق انتخاب سیاست‌های اجتماعی و اقتصادی مناسب دولت بر اساس برنامه‌ریزی‌های توسعه نیز مؤثر است. بنابراین، شناخت صحیح روابط جاری میان محیط‌های روستایی و شهری می‌تواند به کوشش در راستای تغییر ساختاری و کارکردی روابط و مناسبات موجود در برنامه ریزی برای برقرار کردن ارتباط مطلوب ذی نفعان و عملکردهای متوازن دوسویه با مسئولان و ترغیب به سیاست‌گذاری‌های توسعه پایدار به‌وسیله دولت کمک کند و الهام‌بخش توسعه یکپارچه در بخش‌های روستایی ـ شهری باشد.

کلمات کلیدی- برنامه‌ریزی روستایی، توانمندسازی، توسعه پایدار، روستا، تهران، ایران.

تشکر و قدرانی

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

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

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

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

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

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

۱۵. دریافت مقاله صرفاً از طریق سامانه مجله (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 الفبایِ 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 ٤، پاییز ۱۳۹۸، شمارهٔ پیاپی ۲۷

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

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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 ۴، پاییز ۱۳۹۸، شماره پیاپی ۲۷

شاپا: ۲۳۲۲-۲۵۱۴